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"Those invisible barriers are real": The Progression of First-Generation Students Through Doctoral Education

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Using the conceptual framework of social capital, this study outlines the experiences of 20 first-generation students currently enrolled in doctoral degree programs. The framework highlights those structures and processes that offer tacit knowledge to students about how to pursue higher education. For students who are the first in their families to attend college, this knowledge is often elusive. Through individual interviews, data were collected to understand student isolation, financial challenges, and sources of support. Implications for institutions are offered.

It's like, "This is what you can do, this is where you stay." Those invisible barriers are real. People can't see them, but they're real. —Ryan, Social Work Doctoral Student

Commonly defined as individuals whose parents did not receive an undergraduate degree (Choy, 2001; Nunez & Cuccaro-Alamin, 1998; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996), first-generation students have been found to have several traits that characterize them as an at-risk population in higher education (Ishitani, 2006; Terenzini et al., 1996). Students from this population are more likely to grow up in low-income families, receive less support from their family related to college enrollment, hold a full-time job during college, and spend less time interacting with faculty (Terenzini et al., 1996). First-generation students also take longer to complete their bachelor's degree and have lower degree aspirations when compared with their peers (Ishitani, 2006; Nunez & Cuccaro-Alamin, 1998; Pike & Kuh, 2005).

Although researchers have commonly applied the definition of first-generation to undergraduate students, a significant percentage of doctoral students identify as first-generation. In 2002, 37% of doctorate recipients reported that neither parent had completed a college degree (Hoffer et al., 2003). First-generation Ph.D. students are more likely to be female as well as individuals of color. These students also are more likely to attend a community college at some point during their academic career as well as report more debt upon degree completion (Hoffer et al., 2003).

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The characteristics of this population reflect those of students who are more likely to drop out of a doctoral degree program (Council of Graduate Schools, 2004).

While existing studies have documented the struggles that first-generation college students face, little empirical research exists about the challenges and opportunities encountered by this population at the doctoral level. The purpose of this study was to examine the experiences of first-generation doctoral students. Three research questions guided the study: (1) How do first-generation doctoral students negotiate the pipeline to graduate education? (2) How do these experiences influence their desire and pathway to graduate school? and (3) What is the overall experience and satisfaction of first-generation doctoral students?

UNDERSTANDING THE FIRST-GENERATION STUDENT

Approximately one-third of doctoral recipients identify as first-generation (Hoffer et al., 2003). The 2002 Survey of Earned Doctorates, an annual survey conducted for the National Science Foundation (Hoffer et al., 2003), highlights the high percentage of first-generation doctoral students of color. Over half of the African American, Latino, and Native American doctoral graduates identified as first-generation, while 32% of white and 26% of Asian graduates did so. The data indicate an equal representation of first-generation doctoral students across degree fields, although first-generation students tend to be underrepresented in the humanities and overrepresented in professional disciplines, such as education and social work (Hoffer et al., 2003).

Sparse data exist related to students who do not complete the doctoral degree or intend to pursue the doctorate but never do so. Most empirical research suggests that first-generation students are less likely to enter a graduate program as compared to their peers (Choy, 2001; Hoffer et al., 2003; Mullen, Goyette, & Soares, 2003; Perna, 2004; Terenzini et al., 1996). Scholars also have found that students with parents who completed a college degree tend to receive higher grades in college than those from first-generation families (Ethington & Smart, 1986; Mullen et al., 2003). Given the positive relationship between undergraduate GPA and persistence to graduate school (Mullen et al., 2003), first-generation status and GPA is an important finding. First-generation students are also less likely to attend institutions of higher education that are known to produce more individuals with graduate school aspirations (Hoffer et al., 2003; Mullen et al., 2003). Financial resources impact the first-generation student as well, since students with higher levels of debt from their undergraduate years are less likely to pursue graduate enrollment (Perna, 2004) and first-generation doctoral students are more likely to report higher debt than their non-first-generation peers (Hoffer et al., 2003). For example, in the 2003 report, Hoffer and his colleagues indicated that 34% of first-generation doctoral recipients used their own resources to support themselves in graduate school as compared to 22% of their non-first-generation peers.

At the same time, however, stories of first-generation students point to the resiliency of these individuals (Rodriguez, 1983; Tokarczyk & Fay, 1993). Specifically, scholars have found that these students rely heavily upon self-motivation, self-efficacy, and an internalized locus of control to persist (Naumann, Bandalos, & Gutkin, 2003); however, such studies documenting the successful achievements of these students, particularly beyond access to college, are few

in number. Taken together, disproportionately little is known about the experiences of those first-generation students who persist to graduate school and their experiences once enrolled.

CONCEPTUAL FRAMEWORK: THE INFLUENCE OF CAPITAL

The conceptual framework of Bourdieuian capital highlights the resources that impact enrollment and persistence in doctoral education, an important perspective, given that first-generation status, family income, and socioeconomic class are closely related (Terenzini et al., 1996). Individuals develop economic, cultural, and social capital (Bourdieu, 1986) in ways that are impacted by financial resources, communities, and academic qualifications. Capital is mediated through one's habitus, which functions as "a web of perceptions about opportunities and the possible and appropriate responses in any situation" (Walpole, 2003, p. 49). Walpole explains that habitus can be reflected through socioeconomic status, noting "people from the same social class often have common perceptions of goals and strategies for attaining the social profits they desire" (p. 49). All of these social interactions take place within what Bourdieu referred to as fields or arenas in which the struggle for resources occurs (Bourdieu, 1977a). Therefore, the field ultimately provides the setting for one's habitus through which forms of capital emerge.

The lens of social capital is often used to analyze the first-generation student experience (Lohfink & Paulsen, 2005; Mullen et al., 2003; Pascarella et al., 2004). As defined by Bourdieu (1977a), social capital is the "aggregate of the actual or potential resources that are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—in other words, to membership in a group" (p. 103). Social capital emerges through both structure and process. Social capital as structure highlights the frequency, duration, and opportunities for interaction between individuals, while social capital as a process emphasizes the quality and content of individual interactions (Lin, 2001). Coming from a two-parent home, for example, or having conversations about attending college with a family member are examples of these two types of social capital.

Access to social capital generally enables the reproduction of additional forms of capital. Cultural capital, for example, is applicable to first-generation students in that it refers to "specialized or insider knowledge which is not taught in schools, such as knowledge of high culture, and to educational credentials" (Walpole, 2003, p. 49). Specifically, the accumulation of cultural capital can facilitate access to higher economic status by providing "one avenue that people use to display their social class and involve themselves in the values and expectations of their environment" (Liu, Soleck, Hopps, Dunston, & Pickett, 2004, p. 101).

Access to elite group membership (for example, access to doctoral education) is often difficult for first-generation students, given such factors as lower socioeconomic status, educational background or status, and underrepresented and/or minority status (Hoffer et al., 2003). One such way this access may be restricted is through implicit messages about "who has a place in the academy and who does not" (Kosut, 2006, p. 249). Gatekeeping forms of capital may be challenging for first-generation students, including discursive capital, or legitimate academic language; aesthetic-cultural capital, or knowledge of the humanities and arts; cognitive capital, or a type of attitude that is similar to self-assurance; and temporal capital, or the amount of time the student is able to dedicate to scholarly pursuits. As students progress through the education

system with varying degrees of capital, they accumulate knowledge and contacts that either facilitate or inhibit their success (Clark & Corcoran, 1986). While these accumulative indicators are not the sole determinant of student experiences, the education system frequently operates in a manner that offers seemingly legitimate rewards to students who possess particular skills, language, and dispositions, while penalizing those students who do not possess these skills and attributes. Accordingly, a student who accumulates disadvantages throughout the educational experience may encounter barriers to access and success in future careers.

Moreover, students with a lack of capital and advantage may also face classist prejudice from more privileged peers, a way in which to "keep people out" of one's economic culture (Liu et al., 2004). Liu and his colleagues explain that "classism functions to provide both rationalization and behavioral strategies toward accumulation of capital" (p. 107). At the same time, individuals lacking such capital and/or advantage may begin to internalize classist assumptions, triggering feelings of guilt or failure. This type of internalized classism "results from a violation of the values, norms, and expectations of an individual's economic, culture, and social class worldview" (p. 109). Internalized classism can manifest itself as "anger . . . related to not being able to meet the demands of his or her economic culture" (p. 109). Indeed, feelings of guilt and failure are discussed as part of the impostor syndrome, a phenomenon often experienced by those from underrepresented populations (Clance, 1985). Guilt can also be triggered for individuals as they begin to accumulate more capital, thereby increasing their economic and/or capital status (Helms & Cook, 1999).

Conversely, some critical race scholars have problematized the notion of accumulated disadvantage in relation to cultural capital or "deficit thinking," wherein individuals are compared to the dominant (and affluent) white class and deemed to be lacking. These scholars emphasize the richness that emanates from community cultural wealth or the "array of knowledge, skills, abilities and contacts possessed and utilized by Communities of Color to survive and resist macro and micro- forms of oppression" (Yosso, 2005, p. 77). As applied to first-generation students, individuals can draw upon the strength of their own aspirations, their families' support, their ability to navigate through social institutions, their legacy of resistance to subordination, and their social capital to succeed in educational settings (Yosso, 2005). Consequently, these first-generation students accumulate advantage and forms of capital that contribute to their wealth, or the "total extent of an individual's accumulated assets and resources" (p. 78). We utilized these inclusive concepts of capital and accumulated advantage to understand the experiences of first-generation students enrolled in doctoral programs.

METHODS

Qualitative methods are well-suited when researchers seek to understand the participants' meaning of the "events, situations, and actions [with which] they are involved" (Maxwell, 1996, p. 17). Our intent was to understand the unique context that first-generation doctoral students inhabit as well as the contextual influences they experience. Twenty students were interviewed from two institutions that rank in the top 10% of universities in the U.S. that award doctorates to first-generation students (V. Welch, personal communication, September 4, 2008). As identified by the staff of the Survey of Earned Doctorates, 46% of doctoral recipients from Institution A identify as first-generation (V. Welch, personal communication, September 4, 2008), while 48%

of their peers from Institution B do so (B. Groenhout, personal communication, September 30, 2009). Both institutions are also land grant universities and are classified as universities with high research activity by the 2010 Carnegie Classification. While the institutions are located in states that have many races and ethnicities represented, with State A demonstrating an above average representation of people of color and State B, a below average representation (U.S. Census Bureau, 2008), both feature a resident population with a low bachelor's degree attainment when compared to the rest of the country (U.S. Census Bureau, 2008). The median household income of each state is relatively similar: State A, $40,000 and State B, $45,000.

The students interviewed for this study self-identified as being the first in their families to graduate from college. Participants represented a range of disciplines, including fields in the humanities, social sciences, and hard sciences, as well as professional disciplines, such as education and counseling. As illustrated in Table 1, 25% of the participants self-described as students of color, and 80% were women. Forty percent of the participants were enrolled in doctoral programs in their home states. The desire to remain in one's home state to attend a college or university is an additional indicator of first-generation status (Pryor, Hurtado, DeAngelo, Paluchi Blake, & Tran, 2010).

We initially distributed an e-mail to all program coordinators that had doctoral programs on each campus stating that we sought doctoral students who were the first in their family to go to college. The coordinators then forwarded the e-mail to program listservs; students were asked to contact the researchers if they were interested in participating. We sought participants who met the definition of first-generation status (i.e., the first in their family to attend college) and who

TABLE 1
Participant Demographics

Pseudonym	Gender	Race/Ethnicity	Age	Discipline	Program Status	From State of Institution?
Lisa	F	White	29	History	Coursework	No
Amy	F	White	28	History	Dissertation	Yes
Elizabeth	F	White	43	Forestry	Coursework	No
Mary	F	White	52	Interdisciplinary studies	Coursework	Yes
Paul	M	White	29	Biochemistry	Coursework	No
Louis	M	Hispanic	40	History	Dissertation	No
Kelly	F	White	27	Interdisciplinary studies	Dissertation	Yes
Rachel	F	White	30	Counseling	Coursework	Yes
Katrina	F	White	43	Literacy	Dissertation	No
Lindsey	F	White	55	Literacy	Exams	Yes
Charlotte	F	White	25	Psychology	Coursework	No
Suzanne	F	White	32	Chemistry	Dissertation	No
Kathryn	F	White	23	Psychology	Dissertation	No
Miles	M	African American	28	English	Dissertation	No
Jan	F	White	45	Political science	Coursework	Yes
Melanie	F	African American, Hispanic	23	Chemistry	Coursework	No
Margaret	F	White	37	History	Dissertation	No
Claire	F	White	43	English	Dissertation	Yes
Brandy	F	African American	58	Social work	Exams	No
Ryan	M	African American	38	Social work	Coursework	Yes

represented unique characteristics to the extent possible in relation to gender, race, and field of study. We conducted individual, one-time, in-person interviews in the spring and summer of 2009. Each interview lasted from 60 to 90 minutes and was guided by a semi-structured protocol (see Appendix) that asked respondents about their families, their prior educational experiences, their decision to enroll in graduate school, and their thoughts about being a first-generation student. With the participants' consent, the interviews were audiotaped and later transcribed verbatim.

Data analysis occurred via the constant comparative method (Glaser, 1978), which highlights a "research design for multi-data sources, which is like analytic induction in that the formal analysis begins early in the study and is nearly completed by the end of data collection" (Bogdan & Biklen, 2003, p. 66). The steps of the constant comparative method, according to Glaser (1978), include: (1) begin collecting data; (2) find key issues, events, or activities in the data that become main categories for focus; (3) collect data that provide many incidents of the categories of focus; (4) write about the categories explored, keeping in mind past incidents while searching for new ones; (5) work with the data and emerging model to discover relationships; and (6) sample, code, and write with the core categories in mind. The steps of the constant comparative method occur simultaneously during data collection until categories are saturated and writing begins. We utilized Glaser's steps in data analysis, along with the framework of capital provided by Bourdieu (1977a).

Reliability and trustworthiness of data collection were enhanced through individual analysis by both principal investigators followed by a joint session in which consensus occurred on emergent themes as a source of agreement between data forms (Bogdan & Biklen, 2003). Participants also provided member-checks wherein the principal investigators verified emergent themes with the students after the interviews were conducted. The participants confirmed these themes, thereby providing additional trustworthiness to the findings.

FINDINGS

From the analysis conducted, several themes emerged regarding the experiences of these students. These themes were shared despite geographical or disciplinary differences, and included (a) Breaking the Chain, (b) Knowing the Rules, (c) Living in Two Worlds, and (d) Seeking Support. In this section, we highlight the totality of the students' educational journey, noting how individuals entered college and the salient events that impacted their decision to pursue a doctoral degree.

Breaking the Chain

> I guess that is one benefit to being a first-generation student or being from where I am is that you are sort of breaking the chain, and I like it. The way I look at it is that I'm happy that it is me doing it because I don't want it to be my daughter's responsibility. (Melanie)

In speaking with these 20 first-generation doctoral students, one thing was made clear: Every one of these students overcame significant obstacles to make it to where they are today. In what were often tearful recollections, these students shared stories of considerable sacrifice and resiliency to persist through college and beyond to graduate school. This resiliency often related

to family, educational, and social obstacles associated with their academic achievements. For several women in the study, one such challenge was the gender bias of their families. Margaret, a doctoral student in history, explained, "[My stepfather's] idea was, 'Why should a girl go to college? . . . She is just going to get married and stay home and be a mom.'" Katrina, who is pursuing a doctoral degree in literacy, recounted her parents' expectations: "I guess that their expectations were that my older brother would go. Their perspective was that he was a man, and he would have to support a family, and I, on the other hand, would get married and be supported." For others, the obstacles to overcome were financial, as Kathryn, a doctoral student in psychology, explained: "My dad didn't want me to go because of how much money it was going to cost."

These obstacles were also the impetus to break the chains of their backgrounds. Enrolled in an interdisciplinary studies degree program, Kelly shared, "I think it was more or less looking at how hard my parents had struggled for such a long time. We're talking basic, entry-level, labor-intensive-type positions that both of them held during their lives. I didn't want to do that." For others, it was their exposure to "the real world" that changed their mind. Often students worked for a few years before deciding to pursue higher education. A number of them, such as Kelly, found that it was community college that opened their eyes to education: "I didn't want to go to school. I *hated* school. Just forget it. And then I got out in the working world and realized I had no skills. I couldn't do anything. So I went to community college because I didn't have any money . . . for the first time in my life I loved school."

While Kelly was able to find her educational pathway on her own, other students struggled to find any light to illuminate their path. Their parents were frequently unable to help them in this journey. Brandy said, "It was always my parents' desire for me to go to college, but they didn't know where to start." Indeed, it was often a key individual who made the difference. Miles shared his story about accidentally walking into the high school guidance counselor's office. Not knowing the student, the counselor asked if he was in the office because he was in trouble. When she looked at his file and saw his good grades, she then asked him about his college plans. He said, "That was the first time someone had plugged that into my head." Students shared similar stories of someone "putting the idea into their heads," such as teachers and advisors; attending the "right" high school that "pushed them in that direction"; or affiliating with friends who "were just expected to go to college."

Knowing the Rules

> You need to be aware of this game before you start playing it to make sure this is a game you want to play. Once you get to a certain level there is no backing out. (Kelly)

While breaking the chains of their backgrounds constituted a large obstacle for students, it was only the beginning. Simply making the decision to pursue higher education was in itself a challenging uncertainty. For example, Ryan had an interest in attending college, but thought it was off-limits to him. He explained:

> If you got football you can to go to school. Well, I didn't have football so it was obvious I wasn't going because I didn't know you could go to school without football. That line of thinking was not in my world of knowledge and understanding.

Not knowing the correct pathway to take brought confusion: "I started in different places that weren't really what you would consider accredited, you know, like trade schools and stuff," explained Brandy. Indeed, the higher education choices that students made early were something that later they often wished had been different. "I didn't know what to look for or what to have. I just thought you went to the cheapest one. Why would you go to anything else? I didn't understand the value of going to a school that might have a nice name and what that might help with later," explained Kelly.

Instead, students sought to be self-reliant and "learn as they go," such as Brandy. "I had to study twice as hard to learn how to maneuver in and out of the system, how to work the system, how to learn. There was no one telling me what a FAFSA was, for example," she explained. "I had to learn this. No one taught me anything; I am learning it. I'm learning it as I go." As resilient and self-directed as students learned to be, they nevertheless expressed frustration about the ambiguity of expectations within the higher education system. Miles concluded, "I can't be on top of it if I don't know what to expect. No one had really told me. I'm not dumb . . . it's a process of preparing."

As these first-generation students progressed through their higher education experiences, however, they perceived that some peers knew the "rules of the game" while others were often "clueless" or "in the dark" about what was expected or how to navigate the system. Margaret explained, "[My peers] knew things that I didn't. I always felt like I was slowly behind everyone else." Similarly, Kelly shared, "Their parents are educated and have degrees so they kind of know what the system is and how to work it and how to apply that directly to what was expected of them. For me, I kind of have to feel my way around and learn as I go."

Living in Two Worlds

I'm still living in this dream that doesn't call for reality—the reality of me remembering where I come from. (Miles)

Probably the most fascinating theme that emerged from these students' experiences related to that of having to live in two worlds: the world of their upbringing and that of higher education. Kathryn explained, "In a way I'm kind of caught in between these two groups: the working-class group and the world of academia. I don't fully belong to either group anymore. I kind of have one foot straddling that line."

Students expressed that living in this murky space between their backgrounds and their aspirations was often challenging. Respondents shared that sometimes their parents understood why they would want to go to college but were considerably less supportive and understanding of their decision to pursue a graduate degree. Brandy explained, "My family is baffled by the whole of idea of the Ph.D. They were baffled when I went back for the master's, the second master's, and you know, they don't understand." Students often felt pressure from their families to pursue a degree in a field that was "practical," or directly related to a particular profession. Amy shared, "Most of my family would have preferred if I had gone to college that I would've gotten something like an accounting degree, something practical, something that you could go get a job." Her academic choices were not met with approval by her family. "They really didn't understand it, and the more I went to school, the more it just confused the hell out of them. They look at me

kind of like a two-headed chicken or something," she concluded. Other students explained that the lack of their families' understanding translated into outright hostility: "They have no respect for what I'm doing, none. They say, 'You need to get a job and get out of college,'" explained Melanie.

A common obstacle for students developed through language and communication. Students quickly found that their own words often separated them from their families and communities when they returned home. "You can't really act educated when you go home, you know, because they think you are uppity," Jan said. "I actually had a couple of my cousins tell me that I don't even talk the same, 'You don't sound like you're supposed to.'" Lisa coped with such obstacles by devising new words to explain to her family about her experiences in the history program. "I invented a new language that wouldn't necessarily be used on an academic level but going back home and telling whoever what it is I'm doing . . . I call it training, which is not a phrase that anybody in academia would use, but it makes sense to my working-class family," she concluded.

Despite such coping mechanisms, the constant demands for negotiation and balance proved to be draining for students. Claire cried as she explained, "I think it's exhausting. So many people have sacrificed for me to be here. A lot of pressure comes along with that." In fact, the word "sacrifice" emerged multiple times in the interviews, particularly in terms of the sacrifice that the students felt they were making for others and themselves. For example, while reflecting on his future plans as a professor of English, Miles added:

> I see where I am going and where I want to end up. I have literally cut off all connections to those people back home because those people are still doing those things that I cannot be associated with. And it hurts, you know, because these were the people who knew me back when, before I figured out what was my passion.

The feeling of negotiation and balance was not solely directed toward families or communities. Students also articulated the struggle to belong in the world of academia. "I'm here but I really don't belong in terms of class, in terms of gender, in terms of race, I don't belong," said Brandy, an African American woman. "I think if I had been second-generation, I wouldn't have any doubts. I wouldn't feel like it is hard to go back to my community because I am in a different position." Other students described how such struggles undermined their sense of confidence, such as Claire, who explained:

> The hardest thing is thinking that someone is going to find out that I really shouldn't be here, even though it is something that I have worked so hard for. And I have to remind myself constantly that I have a right to be here. I have to keep telling myself.

A resource that students identified as beneficial for coping with these challenges were those values associated with their communities. Kathryn confided:

> Part of academia doesn't really fit with me. I find some of the people to be very elitist, that kind of attitude . . . I come from a working-class background so I have a lot of those values and being able to explain things in real-world terminology and stuff like that is really important to me.

Also, even when families were challenged to understand student choices, they provided encouragement in other ways, such as phone calls and stories of pride their families would share with others. Kathryn explained that her mother called her once a week throughout her program, and was always interested in learning what she was doing. Margaret reflected on how proud her

grandparents were of her "as a doctor." She explained, "[My grandfather] would tell people, 'She's going to be a doctor'. . . My grandmother was having some heart issues and was starting to take these new vitamins and she pulled me aside and asked, "I need you to see if these will go with my medication," and I said, "Grandma, I'm not that kind of doctor."'

Seeking Support

> A lot of other students are too intimidated to ask a professor a question because they don't want to sound stupid, where I'm like, "Hell, whatever, I'll go ask. I'm already at a deficit." (Margaret)

A crucial factor in students' pursuit of a graduate degree and persistence in spite of numerous challenges was the support they received from faculty, peers, and other mentors. Students frequently verbalized this encouragement as being from two families, one from each world. Amy acknowledged, "I'm looking for some sort of mentor, parental—intellectual parent-substitute in a way. I want someone who's there already who can kind of help guide me through. You've got to have two kinds of families." In addition, students found encouragement from their peers. Margaret pointed out how her peers help her, especially those who are not first-generation: "The grad students here, we all belong together; we help each other out. That's really where I have benefited. A lot of the other grad students in history have parents who have Ph.D.s . . . They know the process." Brandy explained that her cousin, who also holds a Ph.D., is her main support through the process. "He helps a lot. He will tell me to do this or do that and he supports me. I tell him when I am doing something, and he understands," she said. While external support was crucial to satisfaction and persistence, students did note that individual motivation and self-reliance was essential. Ryan explained how he became the only child in a family of seven to graduate from college: "I had an inner drive, prayer, faith. I had an inner drive to succeed, a competitive drive to succeed, and I don't know why because I could have easily went another route." Claire added, "I feel like most of the drive is in me, and you have to want it for more than money. You have to use your resources and ask questions. It's not for anyone else in the end."

The final type of support mentioned by a great number of students was financial. Given the working-class background of many of the students, financial support was vital for their success in graduate school. Unfortunately, while many of these students had obtained fellowships and assistantships, they were often not enough to cover all expenses. Kathryn's experience epitomized many when she said, "For me to survive—and that is really what it is about, survival—I have to have this second job." In fact, she explained, "The only way I am able to survive is actually on student loans. So when I get out of this, I am going to have a ton of debt.

DISCUSSION

> My family and the people who have gone before them . . . I find comfort in them. I find strength in it, and it sustains me. (Brandy)

This study examined how first-generation doctoral students negotiate educational pathways and navigate the challenges related to first-generation status. The compelling and often touching

stories shared by these students point to something more than individual aspirations and perseverance. Taken as a whole, their experiences underscore how different forms of capital in the educational system work to ensure success for some students while constructing obstacles for others. Below, we examine the findings of this study in relation to the framework of capital as well as implications for colleges and universities.

In terms of the first research question regarding the pipeline to graduate education, one function of capital is access to networks, which provide resources, knowledge, and insight into various opportunities (Mullen et al., 2003). For the respondents in this study, knowledge about higher education and the pathway to a doctoral degree was initially elusive. Information and attitudes may be reflected through an individual's parents or more broadly through the community or various social networks. Without these resources, first-generation students may not have the often tacit knowledge necessary to pursue a college degree. Students recounted that they "didn't have a clue" about how to begin their educational journey. In this study, students noted that there was at least one individual in their lives who possessed an academic credential and held a different level of social and cultural capital from them who was able to make an initial connection for them to higher education. Whether it was a guidance counselor, a teacher, or a peer, the relationship with those holding more social and cultural capital was meaningful. While connections to faculty advisors and peers provided insight into the process, such connections were haphazard, rarely part of a planned, deliberate effort on behalf of the educational system.

The pathway to graduate school, which was the focus of the second research question, was littered with financial obstacles. Students often relied on loans to pursue their degree and discussed having to work throughout their higher education pursuits. In fact, several of the students mentioned that they had to find additional work, beyond their assistantships, to make ends meet, which may ultimately increase their time to degree and lower their persistence rates (Terenzini et al., 1996). Debt load was also a commonly shared concern among these students, underscoring findings from the National Science Foundation that emphasize the reliance on loans by first-generation students (Hoffer et al., 2003). At the same time, students had faith that the attainment of the doctoral degree would eventually mitigate these financial concerns, as they expected their professional careers would bring financial stability to their lives.

The third research question related to student satisfaction in graduate school. Individuals noted a challenge in terms of belonging. Research has found that a sense of belonging is closely tied to one's satisfaction in graduate school (Gregg, 1972). Specifically, in this study, individuals articulated the challenges of the imposter syndrome, a phenomenon initially described among high-achieving women (Clance & Imes, 1978), but one that can also be applied to those who reflect differences when compared to the perceived majority of an institution. Students who exemplify socio-cultural characteristics that run counter to the norm may also exhibit feelings of "intellectual phoniness" (Clance & Imes, 1978, p. 241). These individuals, despite their academic credentials and praise from peers, do not always experience an internal sense of success. Instead, they maintain they are not intelligent, and "have fooled anyone who thinks otherwise" (Clance & Imes, 1978, p. 241). This phenomenon or syndrome can be debilitating for individuals, particularly since these students work to ensure that their "stupidity" will not be discovered by others. The imposter phenomenon also has been connected to academic self-concept among graduate students (Ewing, Richardson, James-Myers, & Russell, 1996) and self-efficacy of recent doctoral graduates (Haley, 2006). In this study, a feeling of belonging (or a lack thereof) was discussed, even eliciting tears from some participants concerned that they would be "found out" or explicitly told they could

not persist. In relation to social capital, this finding is particularly salient as these students strive to gain acceptance in the larger social network.

Finally, articulating the concept of accumulated disadvantage (Clark & Corcoran, 1986), students remarked that they were not aware of how the choices they made early in their undergraduate careers would affect later choices in regard to graduate education. Specifically, those interested in faculty careers were concerned about the ranking of their institutions and how this ranking would ultimately influence their ability to attain an academic position. In this way, the lack of access to social and cultural capital that would have informed them of the importance of academic prestige may result in accumulated disadvantage. At the same time, however, these students demonstrated a clear sense of resiliency in their willingness to overcome these barriers and could be described as tapping into other forms of capital as discussed by Yosso (2005), including aspirational capital, resistant capital, and navigational capital.

Taken together, the added stresses and pressures resulting from the first-generation status fostered a stressful juxtaposition: to gain economic capital, they must also gain more social and cultural capital through the acquisition of a doctoral degree. In turn, the acquisition of capital resulted in a physical and intellectual distance from their families. Participants discussed the need to be conscious of their language and behavior around their families and their peers, while others talked about the outright disconnection from their families and backgrounds. This often painful detachment fostered a perception of having one foot in both worlds, while also feeling detached from both. Of significance, however, were those students who gained strength from this "border-crossing" experience, feeling that they were not only making their families proud but paving the path for those to come in the future. Consequently, the findings from this study provide support for Bourdieuian (1977a, 1977b, 1986) notions of social and cultural capital as well as more inclusive forms of capital (Yosso, 2005). Specifically, the benefits and drawbacks of the students' first-generation status were apparent. While they expressed obstacles that they had to overcome to acquire more social and cultural capital (and, consequently, more economic capital), they nevertheless shared stories of resiliency gained through support of family and their own aspirations to overcome such barriers.

IMPLICATIONS

Taken together, the experiences of these first-generation doctoral students result in several over-arching implications for policy and practice. For example, high school counselors, teachers, community college instructors, and higher education administrators need to receive guidance and professional development in relation to first-generation students' needs. Many of these students did not receive any assistance in navigating access to the higher education system nor were they aware of how certain institutional types or institutional rankings might affect their future career choices. Moreover, they and their families were not always aware of financial aid or how to access those resources. Those who did receive substantial student aid, in the form of loans, were equally fretful of the effect of this debt on their future. At state and federal levels, supportive policies and information should be disseminated to all high schools, adult education programs, and community colleges that provide further information on how to apply for financial aid and grants. Similarly, more funding and support must be given to programs, such as TRiO and the McNair programs,

that focus on higher education opportunities for first-generation students. Students frequently expressed how one individual "put in their head" the idea of college or graduate school. Accrediting bodies for counseling programs, such as the Council for Accreditation of Counseling and Related Educational Programs (CACREP), should consider requiring a course for prospective high school guidance counselors and continuing education credits on how higher education works and the different kinds of institutions available to students as well as the financial aid system. As of 2010, no such accreditation standards include knowledge related to understanding higher education or financial aid (CACREP, 2009).

At the same time, these students expressed inordinate challenges upon entering higher education—both at the undergraduate and graduate levels. While ambiguity could be considered a hallmark of the graduate school socialization experience (Gardner, 2007), it does not have to be so. Faculty and administrators should work with currently enrolled students to determine what structures could be better explained and what guidelines remain unclear. These discussions can then translate into better communicated and more elucidated guidelines, handbooks, and forms for students. It is vital, however, that first-generation students be involved in such discussions so as not to assume that any understandings of structures and guidelines are universal. Support can also come in other forms. As an example, some students suggested providing support groups for first-generation populations. Since first-generation students are often underrepresented in fields such as the humanities, social sciences, and physical sciences (Hoffer et al., 2003), providing a support group outside a specific department may be beneficial. In addition, informing first-generation students of counseling services may be invaluable, as these students struggle to find their place in the two worlds they straddle with the pressures and stresses that appear distinct to this group.

LIMITATIONS

Given the under-examination of this group of students, the current study exists very much as an exploratory analysis of first-generation doctoral students and presents several limitations. First, we used convenience sampling at two institutions. Future studies should work toward more purposive sampling, particularly in relation to race, gender, institutional and disciplinary context, and geographic location. Second, while both institutions studied ranked highly in terms of the numbers of doctoral recipients who are first-generation, future studies should include institutions that also graduate fewer numbers of first-generation students. Third, given the underrepresented nature of first-generation doctoral students in particular fields, additional research might provide insight into how the disciplinary context influences student experiences. A smaller proportion of first-generation doctoral recipients receive their degrees from the most elite or prestigious institutions (Hoffer et al., 2003, 2006); investigating the experiences of first-generation students who matriculate at these institutions would also merit attention. Following the career paths of first-generation doctorate recipients could illuminate how concepts of accumulated disadvantage influence their futures. Investigations relating to the first-generation experience in relation to race, gender, age, institutional type, and familial status would add insight into the first-generation experience and acknowledge that individuals exhibit multi-faceted identities. Correlates with first-generation status, such as self-efficacy and imposter syndrome, also require investigation.

CONCLUSION

Doctoral education serves a key role in the U.S. system of higher education, training faculty and scholars to engage with future generations of students. Access to doctoral education for this population, and the successful completion of degree programs, ensures a more robust, diverse academy. Although participation in higher education has expanded to include numerous groups previously excluded from the academy, barriers still exist related to individual characteristics, such as first-generation status. The systemic obstacles frequently serve to prevent those individuals from multiple social groups from accessing the potential of higher education.

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APPENDIX

Interview Protocol

1. Why did you decide to go to college?
2. What made you decide to go to graduate school? Was there anything different in this choice?

3. How did you decide to attend this institution?
4. How was your undergraduate experience different from your doctoral experience?
5. How do you feel your first-generation status has affected your experience?
6. What has been the most challenging part of your doctoral experience so far?
7. From where or from whom do you receive the most support?
8. Do you feel your experience would have been any different if you were not first-generation? Why or why not?
9. If you had to offer advice to another first-generation student considering going to graduate school, what advice would you give?
10. Is there anything I didn't ask you about that is vital to understanding your experience as a first-generation doctoral student?