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A Critical Review of LIS Literature on First-Generation Students

Darren Ilett

abstract: This review offers a critical analysis of the library and information science (LIS) literature on first-generation students (FGS) from the last 40 years. This literature demonstrates an interest in understanding the needs of FGS to serve them better, but it is often grounded in a deficit model of education that focuses on what first-generation students lack instead of what they have. This review identifies four predominant themes in the literature: FGS as outsiders, as a problem, as reluctant library users, and as capable students. Then it suggests possible avenues of future research, such as using a “funds of knowledge” approach to build on the learning and skills that students bring from their families and communities.

Introduction

The field of library and information science (LIS) has had a troubled history with first-generation students (FGS). Initially viewed as a disruption by LIS scholars, FGS were deemed insufficiently prepared for academic coursework and unfamiliar with campus culture, including academic libraries. Later, first-generation students were analyzed, evaluated, and finally accommodated into existing frameworks of library services and information literacy instruction. Yet they remain a puzzling, troubling student population in LIS literature: Who are FGS? To what extent do they overlap with other groups in terms of age, gender, race, ethnicity, socioeconomic status, citizenship, and other factors? Are they prepared to conduct library research? Can they succeed in higher education coursework? LIS researchers have tended to treat first-generation students as a vaguely defined but persistent problem rather than as full contributors to scholarly work, campus culture, and higher education generally.

The following critical review first outlines the historical context of LIS research on FGS, the varying definitions of this group of students, and the theoretical framework and methodology of the present study. Next, it identifies four major thematic trends in the literature: first-generation students as outsiders, as a problem, as reluctant library users, and as capable students. Finally, it describes the strengths and limitations of the literature and suggests possible avenues for future research that would either extend or challenge what came before.

Historical Context

Scholarship on first-generation students in the field of LIS has increased in the last decade, demonstrating a renewed interest in serving their needs. It is therefore an opportune moment to review the LIS literature on this substantial demographic group, which, in 2012, comprised 58 percent of undergraduates in the United States, according to some measures.¹ The LIS literature on FGS can be understood as part of a larger trend in higher education research focused on underserved groups' access to a college education and efforts to increase their retention and graduation rates.

The LIS literature on first-generation students has responded to historical and demographic developments in higher education that took place over the last 60 years. The first of these developments was the advent of open admissions or open enrollment policies, which began in the early 1960s.² The second, related event was the establishment of the federal TRIO programs in 1964.³ The continuing goal of the TRIO programs, such as Upward Bound and Student Support Services, is “to serve and assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to postbaccalaureate programs.”⁴ The open enrollment trend and the TRIO programs contributed to increases in the diversity of student populations on U.S. college campuses in terms

of many demographic factors, including race, ethnicity, socioeconomic status, age, veteran status, and parental level of education. The first LIS writings on FGS appeared in the 1970s, as librarians experienced firsthand the changes that the trends of the previous decade had engendered.

More recently, the 2006 Spellings Commission's report, *A Test of Leadership: Charting the Future of U.S. Higher Education*, impacted LIS research on FGS by calling attention to shortcomings in serving underrepresented student populations, including barriers to access, affordability, and standards of instruction.⁵ The uptick in LIS research studies on first-generation students in the last decade is, at least in part, a response to the findings of the Spellings Commission. LIS studies on the information literacy and information behaviors of FGS have demonstrated researchers' interest in understanding these students' characteristics and needs to serve them more effectively and to fulfill the promise of increased access to, and success in, higher education.

Defining First-Generation Students

Defining the term *first-generation students (FGS)* has proved a difficult task. One approach has been to include FGS as one subgroup under a broader category. The term *FGS* appears within discussions of “disadvantaged,”⁶ “new” or “nontraditional,”⁷ “at-risk,”⁸ and “emerging” students.⁹ In these discussions, parental level of education is one factor among many, including age, race, ethnicity, gender, socioeconomic background, veteran status, and employment. Further, ambiguous phrasing such as “minority and low income/first-generation students” makes it unclear whether all the listed categories apply to all students being discussed.¹⁰ At other times, researchers use the FGS label to “identify disadvantaged students without referring to race or ethnicity.”¹¹ The term *first-generation students* may serve as a cipher for students of color,

students of lower socioeconomic status, or both. The lack of clear categorization complicates the interpretation of findings on first-generation students in LIS literature and limits the ability to generalize those findings to other contexts.

Even when researchers focus specifically on first-generation students, there are up to 18 definitions of the term in higher education research, with variations according to level of family education and which family members are considered.¹² LIS studies tend to follow the federal definition outlined in the Higher Education Act of 1965, which defines first-generation students as either being the first in the family to attend college or as having parents who did not graduate from a four-year institution.¹³ However, this definition assumes a nuclear, single-parent or two-parent household and leaves room for confusion in the case of extended families, stepfamilies, and other family structures, as well as families in which older siblings attended college. Further, the federal definition takes the baccalaureate degree as the standard, ignoring the skills, knowledge, and experiences of parents who studied at community colleges or other types of institutions and who may therefore be able to foster their children's success in higher education.

In pursuit of crafting an overview of the full breadth of LIS literature on FGS and of the prevalent themes in that literature, this review includes LIS scholarly sources that present substantive findings or discussions concerning first-generation students, no matter whether or how researchers define the term. The sources range from examinations of students under umbrella categories (such as nontraditional students) that include first-generation students among many other types of students, to analyses of a specific demographic group (such as Latina and Latino students) typically including higher numbers of FGS, to studies of FGS specifically with clear and narrow definitions of the term. Readers should therefore consult sources cited in

this review to determine whether the authors' uses of the term *first-generation students* and subsequent findings are relevant to their own institutional contexts and student demographics.

Theoretical Framework

The following critical review calls into question the deficit model prevalent in education, a model that emphasizes what students lack and the reasons they fail academically. This “predominant view . . . of individually based deficits” assumes that “individuals are able to control their own circumstances, have the freedom to make a variety of choices, and can respond to challenges in predictable, linear, and logical ways.”¹⁴ These individualistic assumptions reflect the behaviors of “traditional” students who are understood, often tacitly, to be white, middle-class, native English speakers with U.S. citizenship and parents who earned a four-year degree. Behaviors such as enrolling as a full-time student, living on campus, and completing college in four years serve as the universal expectations by which all students are judged. Critics of the deficit perspective deem this one-size-fits-all approach an “inappropriate educational model” because it renders many students deficient, particularly native speakers of languages other than English, migrant students, and students of color.¹⁵ Research that labels students “at-risk” implies that students are somehow deficient.¹⁶ Critics of this approach contend that the students are not inherently lacking or at risk of failure but instead that educational systems create at-risk conditions and set up students to fail.¹⁷ Rather than viewing students as deficient, we librarians—as part of such educational systems—might ask ourselves to what extent we are part of the problem. We might then work to “find ways to make it possible for all students to succeed, not just those socially preselected for academic success.”¹⁸

One way in which librarians may help create the possibility for all students to succeed is to “be involved with the daily struggle of translation between the organized conceptions of

knowledge and the efforts of all students to engage that knowledge.”¹⁹ Librarians can engage with first-generation students in exploring the ways in which information itself reflects and reproduces power and social inequities. The Association of College and Research Libraries (ACRL) “Framework for Information Literacy for Higher Education” calls for developing an understanding of “how and why some individuals or groups of individuals may be underrepresented or systematically marginalized within the systems that produce and disseminate information.”²⁰ Among such information systems are libraries themselves, which may produce and perpetuate inequities, particularly when they claim to be neutral and serve all equally, thus ignoring the experiences of underserved student populations such as first-generation students and how those experiences impact students’ use of library spaces, materials, and services.²¹

In contrast with the deficit model and the assumption of neutrality, the funds of knowledge concept might serve as a productive model for understanding first-generation students. *Funds of knowledge* is a term originally developed in the field of elementary education. It refers to the “historically accumulated and culturally developed bodies of knowledge and skill essential for household or individual functioning and well-being.”²² These resources may range from concrete skills and practices to more intangible ideas and abilities.²³ The assumption in this approach is that students are enmeshed in the contexts of their families and wider communities. The students, families, and communities develop a breadth of knowledge and skills, enabling members to function in networks of support and exchange. More recently, Cecilia Rios-Aguilar and Judy Marquez Kiyama have applied the funds of knowledge concept to higher education, proposing that it “can help faculty to consider students’ backgrounds and living conditions as sources of valuable knowledge rather than mere impediments to college-level learning.”²⁴ Further, they urge researchers in higher education to “pay attention to the ample resources and

knowledge that students bring to their classrooms, and how these can be strategically utilized to improve their learning and academic outcomes.”²⁵ Rather than acting as obstacles to success in college, the knowledge, skills, and dispositions that students gain from their families, communities, work experiences, and previous education can form the basis on which to expand their learning, including in the area of information literacy.

Methodology

This critical review gathers for the first time a wide range of LIS literature on first-generation students that spans approximately the last 40 years. Though critical reviews present an overview of the literature on a topic, they do not necessarily aim to be exhaustive. Rather, they go “beyond mere description of identified articles” by creating “an opportunity to ‘take stock’ and evaluate what is of value from the previous body of work” and by serving as “a ‘launch pad’ for a new phase of conceptual development.”²⁶ With this model in mind, the purpose of this review is to critically examine the scholarly literature and to suggest possible lines of future inquiry.

From June 2017 to May 2018, the author searched the databases *Library & Information Science Source* and *Library and Information Science Abstracts* using the keywords “first-generation students” and “first-generation college students,” which yielded 73 results. He discarded book reviews, annual reviews of LIS research, and sources that mentioned FGS but did not include a significant discussion of their needs or characteristics. This process left 22 sources. The author also used citation searching to find other relevant sources, avoiding those written by scholars outside LIS that did not include substantial discussion of libraries, information behaviors, or information literacy. He analyzed the resulting 35 sources and identified four recurring themes: (1) FGS as outsiders, (2) as a problem, (3) as reluctant library users, and (4) as capable students. While not an exhaustive list of all elements in the literature, this set of common

themes offers lenses through which readers may view the body of research. Each section of the following review provides examples of literature that illustrate the respective themes. However, by citing a given source in a discussion of a theme, the author does not intend to reduce the complexity and nuance of that source to a single theme.

Findings

First-Generation Students as Outsiders

One manifestation of deficit thinking in LIS literature has been the representation of first-generation students as outsiders in relation to mainstream college culture. This contrasts with the depiction of librarians as insiders of that culture. Janice Simmons-Welburn wrote, for example, of increasing numbers of underrepresented students “on our campuses.”²⁷ Similarly, Colette Wagner referred to “the growing numbers of non-traditional students who now populate our college classrooms.”²⁸ Such formulations claim college spaces as “ours,” thereby marking a division between librarians as owners of higher education and first-generation students and other underrepresented students as a growing population of intruders. More overtly antagonistic overtones appeared as well. Within a critique of the failure of the U.S. education system to prepare “disadvantaged” students for success in college, Patricia Breivik described how academic librarians had been forced to rush their preparations for the “invasion” of such students in the 1970s.²⁹ The phrase is telling: librarians experienced the enrollment of students who had previously been excluded from higher education as an attack by hostile outsiders.

The antagonistic tone of this theme is clearest in explicitly combative imagery. According to Wagner, nontraditional students played “a dangerous survival game” in their interactions with the academic library, a game that the students themselves had invented to avoid what they purportedly felt was time wasted learning unnecessary research skills.³⁰ This rhetoric

culminated in a description of “the hit-and-run library user,” who, “by re-inventing the research game, defining the library as enemy rather than ally, and waging a campaign of blitzkrieg attacks on the academic library . . . has tossed the gauntlet of challenge onto the reference desk.”³¹ In this view, nontraditional students were criminals, combatants, and outsiders to higher education in terms of social class, intellectual development, and familiarity with research processes and library services. Further, students actively created a hostile situation against their own interests. The disruption was so fundamental that it forced librarians to shift their service model from reference to instruction, according to Wagner, but “only as a response to direct threat from belligerents.”³² Depictions such as this tell us less about the characteristics and needs of first-generation students (and other underrepresented students) and more about librarians’ preconceptions and anxieties regarding the changing demographics of higher education.

Given the frequent depictions of FGS as outsiders, it is not surprising that students internalize feelings of not belonging in college generally and in academic libraries specifically. Stacy Brinkman, Katie Gibson, and Jenny Presnell focused particularly on this phenomenon and found that first-generation students perceived themselves as “out of the loop” regarding college jargon, information, and procedures. At the same time, FGS assumed their peers whose parents went to college had the “inside scoop.”³³ They used phrases such as “hidden thing I don’t know,” “don’t understand the system,” and “not for me” to express feelings of being outside an arcane, inscrutable, and complicated culture of higher education.³⁴ Importantly, their perceptions of themselves as outsiders also negatively affected their ability to find and use information in college.³⁵

A principal cause of the outsider status of FGS, according to LIS researchers, is their families. First-generation students are more likely to live with their parents, which, David

Tyckoson argues, may “alienate the student from the mainstream of college life” and make them “less connected to the institution as a whole than are other more traditional students.”³⁶ LIS researchers point out that FGS may feel less supported by their parents, even if they live with them. In fact, the title of Brinkman, Gibson, and Presnell’s study, “When the Helicopters Are Silent,” evokes the inability of the parents of first-generation students to offer the constant, context-specific support that continuing-generation students may have from their parents.³⁷ While families are indeed viewed in the LIS literature as a source of emotional support, their lack of experience with college prevents them from offering advice about higher education procedures and academic content.³⁸ Put another way, FGS “bring less social capital in terms of their family’s connection to higher education.”³⁹ Further, Tyckoson claimed that families may exert pressure on FGS to succeed, emphasize the sacrifices they make to finance a college education, fail to understand the demands of college study, and resent the changes in values and identity that may result from attending college.⁴⁰ As these characterizations demonstrate, first-generation students themselves and their families, as well as their previous individual and collective knowledge, skills, and culture, are depicted not just as outside the realm of higher education but also as the principal barrier to success in college. Despite the efforts of LIS researchers such as Breivik and Tyckoson to identify librarians’ roles in failing to serve the needs of all students and thereby to improve library services and instruction, their persistent use of the rhetoric of the outsider gives the impression that these students do not belong in college.⁴¹ Such sentiments may negatively impact how librarians perceive and serve underrepresented students such as first-generation students.

First-Generation Students as a Problem

Related to the theme of the outsider is the tendency to view FGS as a problem that needs to be solved. In the introductions and literature reviews of many studies, researchers point out the relatively large and growing percentage of undergraduates who are FGS to establish the scope of this population and thus the urgency of the “problem” they represent.⁴² Researchers also cite the relatively low grades and retention and graduation rates of first-generation students,⁴³ and they list other demographic factors such as race, ethnicity, socioeconomic background, country of origin, documentation status, and native language.⁴⁴ The effect of viewing first-generation students as a problem is to differentiate them from traditional students, who serve as an implicit standard of success, and consequently to judge FGS as lacking.

This approach may, however, have the positive outcomes of raising awareness of FGS as a substantial student demographic and of highlighting the obstacles they face. While research studies may initially cite negative trends concerning first-generation students, they later present nuanced findings regarding the information behaviors of FGS, identify how libraries and librarians may be inadvertently creating barriers to access and success, and suggest ways of improving services and instruction.⁴⁵ Nevertheless, the common trend of opening research reports on first-generation students with a litany of negative statistics may predispose readers to view FGS as deficient and problematic.

Beyond the frequent citation of statistics and demographic information, researchers also identify the many ways in which FGS differ from continuing-generation students, particularly in terms of expected behaviors. Tyckoson serves as a clear example of the problem-solution approach in that he describes at length how FGS differ from traditional students and then suggests several modifications that library educators may implement to accommodate the needs of first-generation students. According to Tyckoson, FGS generally have lower than average

family income; enroll in public institutions, particularly two-year colleges and vocational schools; enroll part-time; drop out more frequently; live with their families; encounter difficulties with their families, including lack of understanding of college workload, pressure to succeed, jealousy, and cultural conflicts; and shoulder family responsibilities and employment in addition to coursework.⁴⁶ In response to these tendencies, Tyckoson proposes several accommodations to serve the needs of FGS, such as offering instruction sessions at different times of the day and week, eliminating assignments that can cause a financial burden (for example, requiring extensive photocopying), and creating a “family friendly” environment where students may bring their children.⁴⁷

This problem-solution approach is typical of the diversity or inclusion model in education. To its credit, this approach identifies barriers that FGS face and takes those barriers into account when designing instruction and services. Unfortunately, it also assumes that all first-generation students are alike and that their purported deficiencies are disruptive to the status quo of library services. Further, both the problems (student deficiencies) and solutions (library instructors’ accommodations) remain at an individualistic rather than a systemic or institutional level. David Hudson argues that the LIS emphasis on individualistic responses alone—“demographic inclusion and individual behavioral competence”—prevents an understanding of racism as systemic and of libraries and librarians as complicit in those systems.⁴⁸ Increasing diversity and developing individual cultural competence without addressing systemic racism are insufficient for effecting change. Reports on adjusted curricula or teaching methods in LIS locate both the problem and the solution at the individual level and therefore fail to address the field’s role in producing and perpetuating inequality.

First-Generation Students as Reluctant Library Users

A third theme is a familiar one from LIS literature on undergraduate students generally, namely that students seek the help of librarians and use library collections reluctantly, if at all.⁴⁹ Wagner identified this disconnect by claiming that nontraditional students (including FGS) were “impatient and frustrated to learn that the library reference desk is not a McDonald’s service counter where quick stops yield fast information in neat, take-out containers.”⁵⁰ Wagner implied that students neither recognized the complexity and intricacy of research, nor comprehended the value of the services that librarians offered. The charged rhetoric of the passage hints at the biases that librarians, who are often white, college educated, and middle class, may have toward an increasingly diverse student population.

LIS research studies have indicated that first-generation students typically avoid getting information from librarians. For example, Jordan Yee found a general passivity among some FGS toward their own education.⁵¹ More specifically, researchers have determined that FGS tend to seek information and assistance from many types of people, but only rarely from librarians. Brinkman, Gibson, and Presnell reported that FGS felt formal support systems on campus did not serve them well; consequently, they developed their own informal information networks made up of mentors with similar identities as well as support staff, such as bus drivers, custodians, and cafeteria servers.⁵² The self-perceived lack of knowledge among FGS and the stress it caused them extended to their use of the academic library as well, preventing some from asking for help.⁵³ Firouzeh Logan and Elizabeth Pickard found that first-year FGS tended to seek help from individuals directly related to their courses, such as instructors and teaching assistants. Further, first-generation students usually sought help from librarians only after others urged them to do so.⁵⁴ Similarly, Tien-I Tsai concluded that FGS turned more frequently to print and electronic information sources than to human beings.⁵⁵ Focusing specifically on Latina and Latino first-

generation students, Dallas Long found that they rarely sought the help of librarians; in fact, for most of the students in the study, the “only encounters with librarians were the instruction sessions taught by librarians as part of the general education curriculum.”⁵⁶ Several studies have thus corroborated that FGS rarely, if ever, consult with librarians for help.

LIS researchers have also explored how first-generation students use print and electronic sources in their coursework, which the researchers found troubling in several ways. Paula Dempsey and Heather Jagman described the many possible sources of confusion and frustration that students experience in searching for a book in the stacks.⁵⁷ Long found that, among the Latina and Latino first-generation students he interviewed, few had made use of the library’s collections. One student spent an hour browsing through print copies of journals in the library, and, “exasperated, she gave up after more than an hour of fruitless browsing,” without seeking help from library personnel.⁵⁸ Tsai discovered that, for course assignments, FGS used Web search engines and their personal collection of materials (such as books they owned or resources provided by instructors) more frequently than they did both electronic and print library resources.⁵⁹ In fact, Tsai reported further that students only used library resources when a course instructor required it.⁶⁰ Though Logan and Pickard found that FGS demonstrated some knowledge about search tools and evaluating sources, they prioritized ease of use above other factors and tended to describe their research processes imprecisely, often collapsing search tools and the sources themselves and speaking generally about searching “online” without specifying where and how.⁶¹ Intriguingly, Krista Soria, Shane Nackerud, and Kate Peterson discovered that FGS “were significantly less likely than non-first-generation college students to utilize libraries in nearly all areas except for online reference services.”⁶² This finding may indicate the promise

of online tools for encouraging first-generation students to use library services and meet their information needs.

Overall, these studies strongly suggest the presence of obstacles to FGS interactions with librarians and use of library resources, making them appear as reluctant library users. Researchers have found that first-generation students tend to find academic libraries intimidatingly large, loud, crowded, unfamiliar, and filled with difficult-to-find resources and jargon-filled signage, particularly in comparison with the school and public libraries with which they are more familiar.⁶³ Further, FGS tend to lack awareness of services available in the academic library as well as the value of those services.⁶⁴ Nevertheless, librarians may assume that all students share a body of tacit knowledge.⁶⁵ In fact, researchers have found that first-generation students feel judged for not knowing something and therefore avoid asking for help.⁶⁶ Lack of diversity is yet another factor. Many students do not see themselves reflected in library personnel, collections, and programming, which may contribute to their reluctance to use library services and resources.⁶⁷ Thus, from the physical library space to lack of diversity, several factors contribute to a general tendency among first-generation students to avoid library personnel and resources. Given the many obstacles to library use that researchers have identified, it follows that FGS often remain unaware of the purpose of the academic library and the role that it could play in their success in college.⁶⁸

Though first-generation students may remain reluctant to seek assistance from librarians and to utilize library materials, they nevertheless do make use of library spaces. Researchers found that FGS view libraries as caring about their success because they provide spaces and furnishings that support learning.⁶⁹ Yet they have conflicting feelings about the library, appreciating the space dedicated to studying but also dreading having to study in the first place.

One student described the academic library as “the second home you wish you didn’t have to have.”⁷⁰ Further, first-generation students make library spaces their own. Studies have found that FGS often viewed the academic library as a social space and were more likely to meet friends there than were other students.⁷¹ FGS also used the library for such course-related needs as reserves, printing, and photocopying.⁷² Though they may not be consulting with librarians, borrowing library materials, or searching databases as frequently as other types of students, FGS do use library spaces to meet their social, study, and logistical course needs. First-generation students create strategies for success that do not necessarily correspond to models of research behavior taken for granted in LIS research, models based on the behaviors of traditional students. Therefore, FGS may appear as reluctant library users primarily because LIS researchers view them through a static, limited lens of traditionally effective research behavior and library use.

First-Generation Students as Capable Students

Counter to the previous themes, the final trend in LIS research is to view FGS as students capable of learning and success. Diane Dallis and Emily Okada found that all incoming students they worked with—whether they were FGS or not—shared challenges in adapting to college. These newcomers responded well to low-stakes instruction emphasizing the development of positive affect toward the academic library.⁷³ This view emphasizes the qualities and experiences that incoming first-generation students share with all beginning college students and therefore tends to integrate them into campus culture and procedures, including library orientation and instruction. Indeed, some studies have found that demographic factors and student background had less of a correlation to student success than did previous library use.⁷⁴ These findings underscore the positive impact the library can have on all students—that is, of course, if barriers to the use of library spaces, collections, and services by FGS can be identified and addressed.

Thus, while not dismissing differences among student populations, some studies have found commonalities across student groups. This stands in contrast to approaches described earlier that depict FGS as problematic outsiders to the culture of higher education and to the research process.

Other researchers have presented findings regarding students' research skills that diverge from the usual deficit perspective on first-generation students. Citing "a need to understand first-generation students in terms that reject that deficit-based approach," Karen Neurohr and Lucy Bailey emphasized that they purposefully chose research participants who had completed at least three semesters of college—that is, who had advanced beyond "a common, one-year time frame that universities note as a key marker for retention."⁷⁵ By selecting students who had attained a level of success in college, Neurohr and Bailey explored the characteristics and habits of FGS from an asset-based perspective. In addition, Jennifer Dixon found that, for colleges, having "a large percentage of first-generation college students did not correlate to an additional need for help."⁷⁶ Along the same lines, Logan and Pickard discovered that all the FGS they interviewed had completed a research paper in high school and thus had some research experience on which to build during college.⁷⁷ Brinkman, Gibson, and Presnell also reported that first-generation students felt academically prepared for college.⁷⁸ Further, in comparing first-year with senior FGS, Elizabeth Pickard and Firouzeh Logan found that seniors had "developed additional, necessary research skills and a much more complex understanding of research as a process" and that they "looked to librarians more frequently for assistance and did so with a clearer awareness and understanding of librarians' expertise."⁷⁹ These findings underscore that first-generation students improve their information literacy knowledge and skills over the course of their college careers and come to understand the role of the library and librarians in their academic success.

Other studies have identified traits that contribute to the success of FGS, such as self-reflection and self-directed learning,⁸⁰ as well as routine study habits.⁸¹ First-generation students are not necessarily lacking in preparation for success in college, including in conducting library research. All these findings indicate that FGS have potential funds of knowledge related to conducting research and studying which librarians could foster and extend.

Another strand of research depicts the role of families in the college career of first-generation students in a positive light. Though parents might not offer assistance in navigating college procedures or completing course assignments, researchers have established that FGS generally feel their parents supported them emotionally and encouraged them to attend college.⁸² In fact, Tsai discovered that FGS felt the moral support they received from their parents was an important factor in motivating them to persist in college.⁸³ Rather than acting as a barrier to success, as depicted by some researchers, families may serve as a source of support, inspiration, and motivation—that is, as a resource to increase chances of success.

Discussion and Recommendations

Positive Developments

As became clear in this review, currents in the LIS literature go against the prevailing deficit perspective and instead utilize an asset-based model in discussing FGS. Building on the LIS research that emphasizes what students can do, this article now highlights existing approaches that indicate ways of working productively with first-generation students. One frequent strategy is to collaborate with campus units that support first-generation students, such as the federally funded TRIO programs, first-year experience programs, or relevant academic departments.⁸⁴ Cheryl Riley and Barbara Wales served as librarian mentors to FGS who conducted research projects and cited the benefits for FGS of having “a special relationship with a librarian,”

characterized by “unique opportunities for support and encouragement.”⁸⁵ Similarly, Adriana Parker worked with a university program that offered a community of support for FGS, initially teaching a one-shot instruction session for the program and later becoming fully embedded in the course. Parker emphasized the value of developing personal connections with students as a whole person, rather than appearing as “an unknown authority figure” in “a series of isolated classroom visits.”⁸⁶ The trust that emerged from shared experiences allowed Parker to “learn critical information about our first-generation students as they began to navigate social, academic, financial, and administrative challenges at the university.”⁸⁷ Further, this information enabled her to consider ways to “level the playing field”—that is, to effect change in the university and academic library in order to address students’ varying strengths and challenges.⁸⁸

Of course, not all librarians can serve as research mentors or embedded librarians in a semester-long course. However, other approaches of a more manageable scale emphasize affect and connecting with students. Along these lines, Dallis and Okada offered library orientation and one-shot instruction sessions that aimed “to create a sense of belonging and to encourage a sense of competence.”⁸⁹ Similarly, regarding a library orientation session that fostered positive student affect, Susan Hassig concluded that “by capturing their interest with an entertaining rather than a formal instruction session, their perception of an intimidating academic library can change.”⁹⁰ R. Allan Dermott, Dorin Schumacher, and Stephen Pinzari found that incorporating games in library instruction improved the motivation and engagement of FGS.⁹¹ Smaller-scale approaches such as these can have a substantial impact by placing student affect at the center of instruction and services, rather than overwhelming incoming students with complex library research procedures from the outset.

Another positive trend is to involve students more actively and fully in library instruction. One strategy for doing so, particularly in credit courses, is to cocreate course expectations, learning outcomes, and assignment rubrics as a collaborative community of learners.⁹² Another is to engage students in self-reflection on the reasons for conducting research in the first place, an activity that “can prompt the student to move away from rote information satisficing and can pave the way to a deeper understanding of the motivations behind the process.”⁹³ This also provides library instructors insight into each student’s preparation for and feelings about conducting research, enabling them to adjust instruction accordingly and to “meet specific students on their plane of research understanding.”⁹⁴ In a similar vein, Dempsey and Jagman concluded that “an independent learning activity, when coupled with reflection, effectively exposed first-year students to a number of concepts in the IL Framework.”⁹⁵ Further, the researchers gained deeper insight into actual student library behaviors as well as the skills, concepts, and dispositions that they bring with them to college, some of which related directly to the ACRL “Framework for Information Literacy for Higher Education.” An advantage of introducing metacognitive elements into library instruction is that it avoids the assumption among librarians that “everyone already knows or values what we value” and instead opens a dialogue about conducting research, using information, seeking help, and collaborating more broadly.⁹⁶ This aligns with the funds of knowledge approach in that it values the skills and knowledge that students bring with them to college as the foundation for further, collaborative learning.

Directions for Future Research

LIS research on first-generation students has provided valuable insights into students’ experiences, challenges, and information literacy. However, several possible avenues of research

might further develop the knowledge base on FGS and avoid deficit thinking. The first is to expand LIS research into FGS and the academic library as space. Neurohr and Bailey's study is the only research dedicated exclusively to this topic, and they concluded that, for FGS, developing an affective tie to the library as space "may be an under-recognized source for strengthening connections to a community of learners" and, thus, increasing chances of academic achievement.⁹⁷ Future research could build on previous findings about first-generation students and library spaces to increase our understanding of the ways in which FGS form a connection with library spaces and how they transform those spaces to serve their own academic and social purposes. Such research could form the basis for creating library spaces that more closely align to the characteristics and needs of FGS.

The issue of definitions is a second important area for future research. Current higher education research on FGS questions the ways in which researchers employ the term. Thai-Huy Nguyen and Bach Mai Dolly Nguyen contend that focusing solely on the differences between first-generation students and continuing-generation students may obscure how intersectionality impacts students' lives—that is, "how individuals are multiply disadvantaged."⁹⁸ First-generation status, Nguyen and Nguyen argue, is one factor among multiple identities, including gender, race, ethnicity, and socioeconomic status, and therefore cannot be examined in isolation. This is especially true because "parental education (i.e., how the FGS term is defined) is already an outcome of structural circumstances related to those same social forces."⁹⁹ In other words, the fact that one's parents did not go to college is the historical result of such forces as racism, sexism, and economic injustice. To gain a fuller picture of the experiences of first-generation students in college, LIS researchers must therefore carefully define their categories of analysis

and adopt more nuanced approaches that consider how first-generation status intersects with other forms of oppression.

A third possible area for innovation is the scope of investigation. Some LIS researchers have included everyday information behavior in their analyses, yet the behavior in question remains tied to such college-related contexts as college selection, financial aid procedures, and academic advising.¹⁰⁰ In contrast, research that considers how students use information in their everyday lives, in contexts unrelated to either coursework or college contexts, could uncover funds of knowledge among first-generation students. This approach would help LIS researchers understand the information literacy of first-generation students more fully, beyond academic situations. In addition, as we have seen, LIS literature generally takes a negative view of the families of FGS. Here again, a funds of knowledge approach could reverse this trend by including students' families within the scope of research. In fact, the original research on funds of knowledge was founded on working closely with parents.¹⁰¹ Parents and family of FGS are an underexplored area of research in LIS, and working with them to discover what resources, knowledge, and skills they share with their college-going children would deepen our understanding of how FGS use information within various social contexts.

A fourth suggestion is to explore additional research methodologies. LIS literature largely remains in the habit of examining FGS using educational standards not established with them in mind. To create a system of higher education (including academic libraries) that works for FGS, research must bring students' voices to the forefront so that we LIS professionals might better understand their experiences, characteristics, and needs on their own terms. LIS researchers have frequently collected individual or group interview data.¹⁰² Additionally, Robert Labaree has argued for the use of the life history method to understand first-generation students and

libraries.¹⁰³ Yet LIS studies have not yet employed qualitative research methodologies to their full potential for foregrounding participants' voices. Narrative research is one methodology that could address this trend since it emphasizes individuals' experiences, "set within their personal, social, and historical context, and including the important themes in those lived experiences."¹⁰⁴ Narrative research methodologies place the individuals' voices and understandings of their experiences at the center of research findings and do so within a sociohistorical context. A second promising methodology—participatory action research—involves participants in designing research "to specifically challenge power relations and initiate change in their own communities."¹⁰⁵ Such a methodology would upend the pervasive deficit model in LIS research on FGS in that the students themselves would codesign the research, deciding which questions to ask, how to analyze the data, how and where to disseminate findings, and how to respond to what they learn. Participatory action research on FGS could contribute to the transformation of how LIS imagines information literacy, library spaces, and library services through the students' points of view.

Conclusion

The LIS literature on FGS has undergone several developments since its beginnings in the 1970s. An initial period of unease characterized LIS writing that chronicled shifting student demographics, of which increasing numbers of first-generation students were a part. Beginning in the 1990s, librarians reported on adjustments made to library services and instruction and on collaborative initiatives with other campus units to meet the needs of FGS. In the last decade or so, LIS researchers have developed studies to investigate information literacy, information behaviors, and attitudes toward academic libraries among FGS. This trajectory in the literature serves as evidence of an enduring interest in the field of LIS to expand access to higher

education and to increase student success. As this review demonstrates, however, much of the LIS literature on FGS retains residues of the deficit model of education. Trends such as understanding FGS as outsiders, as a problem, and as reluctant library users may negatively impact how we librarians interact with first-generation students and how we (fail to) design library services, collections, and spaces for them. This article aimed to draw attention to these tendencies in LIS research and to suggest ways in which we might approach FGS in more productive ways. What we learn from and with first-generation students may challenge our understanding of information literacy, the research process, and what success in college might look like, and it may lead to academic libraries where all students, including FGS, feel they fully belong.

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Notes

1. According to a National Center for Education Statistics, 24 percent of undergraduate students in the United States had parents with no college experience, and 34 percent had at least one parent with some college but none with a bachelor's degree. Jeremy Redford and Kathleen Mulvaney Hoyer, "First-Generation and Continuing-Generation College Students: A Comparison of High School and Postsecondary Experiences," National Center for Education Statistics, 2017, 5, <https://nces.ed.gov/pubs2018/2018009.pdf>.
2. Patricia Senn Breivik, *Open Admissions and the Academic Library* (Chicago: American Library Association [ALA], 1977), 6.

3. U.S. Department of Education, "50th Anniversary of the Federal TRIO Programs: Celebrating 50 Years of Providing Hope and Opportunity for Success," 2014, 3,
<https://www2.ed.gov/about/offices/list/ope/trio/trio50anniv-factsheet.pdf>.
4. Office of Postsecondary Education, "Federal TRIO Programs - Home Page," 2018,
<https://www2.ed.gov/about/offices/list/ope/trio/index.html>.
5. U.S. Department of Education, "A Test of Leadership: Charting the Future of U.S. Higher Education," 2006, <https://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf>.
6. Breivik, *Open Admissions and the Academic Library*, 26.
7. Colette A. Wagner with Augusta S. Kappner, "The Academic Library and the Non-Traditional Student," in *Libraries and the Search for Academic Excellence*, ed. Patricia Senn Breivik and Robert Wedgeworth (Metuchen, NJ: Scarecrow, 1988), 44.
8. Barry Trott, Laura Barrett, Ridie Ghezzi, and Jay Satterfield, "Jay Gatsby Goes to College: Engaging At-Risk Students," *Reference & User Services Quarterly* 55, 1 (2015): 11,
doi:10.5860/rusq.55n1.11.
9. Janice Simmons-Welburn and William C. Welburn, "Cultivating Partnerships/Realizing Diversity," *Journal of Library Administration* 33, 1-2 (2001): 6,
doi:10.1300/J111v33n01_02.
10. Ibid.
11. Rochelle Sharpe, "Are You First Gen? Depends on Who's Asking," *New York Times*, November 3, 2017, <https://www.nytimes.com/2017/11/03/education/edlife/first-generation-college-admissions.html>.

12. Thai-Huy Nguyen and Bach Mai Dolly Nguyen, "Is the 'First-Generation Student' Term Useful for Understanding Inequality? The Role of Intersectionality in Illuminating the Implications of an Accepted—Yet Unchallenged—Term," *Review of Research in Education* 42, 1 (2018): 153, doi:10.3102/0091732X18759280.
13. Higher Education Act of 1965, Pub. L. No. 89-329; 1998 Higher Education Act Amendments, Pub. L. 105-244, <https://www2.ed.gov/about/offices/list/ope/trio/triohea.pdf>.
For examples of LIS studies following this definition, see Catherine Haras and Suzanne L. McEvoy, "Making the Bridge: Testing a Library Workshop for a Summer Bridge Learning Community," *Research Strategies* 20, 4 (2007): 257, doi:10.1016/j.resstr.2006.12.003; and Tien-I Tsai and Kyung-Sun Kim, "First-Generation College Students' Information Seeking: Their Personality Traits and Source Use Behavior in Coursework-Related Context," *Proceedings of the American Society for Information Science and Technology* 49, 1 (2012): 2, doi:10.1002/meet.14504901259.
14. Cecilia Rios-Aguilar and Judy Marquez Kiyama, "Introduction: The Need for a Funds of Knowledge Approach in Higher Education," in *Funds of Knowledge in Higher Education: Honoring Students' Cultural Experiences and Resources as Strengths*, ed. Judy Marquez Kiyama and Cecilia Rios-Aguilar (New York: Routledge, 2018), 4.
15. Patricia Montiel-Overall, Annabelle Villaescusa Nuñez, and Verónica Reyes-Escudero, *Latinos in Libraries, Museums, and Archives: Cultural Competence in Action! An Asset-Based Approach* (Lanham, MD: Rowman & Littlefield, 2016), 50.
16. For examples of the term *at-risk* in LIS literature, see Anne C. Barnhart and Andrea Stanfield, "Bridging the Information Literacy Gap: Library Participation in Summer Transition Programs," *Reference Services Review* 41, 2 (2013): 206,

- doi:10.1108/00907321311326147; Susan Hassig, "Their First Encounter: How to Encourage At-Risk Students' Return to the Library," *Community & Junior College Libraries* 12, 1 (2004): 45, doi:10.1300/J107v12n01_08; and Linda Klein, "Reducing Library Anxiety through Career Explorations at Eastern Kentucky," in *The Role of the Library in the First College Year*, ed. Larry Hardesty (Columbia, SC: University of South Carolina, 2007), 217.
17. Richard R. Valencia, *Dismantling Contemporary Deficit Thinking: Educational Thought and Practice* (New York: Routledge, 2010), 125.
 18. James Elmborg, "Critical Information Literacy: Implications for Instructional Practice," *Journal of Academic Librarianship* 32, 2 (2006): 194, doi:10.1016/j.acalib.2005.12.004.
 19. *Ibid.*, 198.
 20. Association of College and Research Libraries (ACRL), "Framework for Information Literacy for Higher Education," 2015, 6, <http://www.ala.org/acrl/standards/ilframework>.
 21. David James Hudson, "On 'Diversity' as Anti-Racism in Library and Information Studies: A Critique," *Journal of Critical Library and Information Studies* 1, 1 (2017): 20–21, doi://dx.doi.org/10.24242/jclis.v1i1.6.
 22. Luis Moll, Cathy Amanti, Deborah Neff, and Norma González, "Funds of Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and Classrooms," chap. 4 in *Funds of Knowledge: Theorizing Practices in Households, Communities, and Classrooms*, ed. Norma González, Luis C. Moll, and Cathy Amanti (New York: Routledge, 2005), 72.
 23. Norma González, Luis Moll, Martha Floyd Tenery, Anna Rivera, Pat Rendón, Raquel Gonzalez, and Cathy Amanti, "Funds of Knowledge for Teaching in Latino Households," chap. 5 in González, Moll, and Amanti, *Funds of Knowledge*, 91.

24. Rios-Aguilar and Kiyama, "Introduction," 5.
25. Ibid.
26. Maria J. Grant and Andrew Booth, "A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodologies," *Health Information and Libraries Journal* 26, 2 (2009): 93, doi:10.1111/j.1471-1842.2009.00848.x.
27. Janice Simmons-Welburn, "Designing Effective Instructional and Outreach Programs for Underrepresented Undergraduate Students: The Iowa Approach," in *Library User Education: Powerful Learning, Powerful Partnerships*, ed. Barbara I. Dewey (Lanham, MD: Scarecrow, 2001), 223.
28. Wagner, "The Academic Library and the Non-Traditional Student," 47.
29. Breivik, *Open Admissions and the Academic Library*, 17.
30. Wagner, "The Academic Library and the Non-Traditional Student," 45–46.
31. Ibid., 48.
32. Ibid.
33. Stacy Brinkman, Katie Gibson, and Jenny Presnell, "When the Helicopters Are Silent: The Information Seeking Strategies of First-Generation College Students," in *Imagine, Innovate, Inspire: Proceedings of the ACRL 2013 Conference*, ed. Dawn M. Mueller (Chicago: ACRL, 2013), 647–48.
34. Ibid., 648.
35. Ibid.
36. David A. Tyckoson, "Library Service for the First-Generation College Student," in *Teaching the New Library to Today's Users: Reaching International, Minority, Senior Citizens, Gay/Lesbian, First-Generation, At-Risk, Graduate and Returning Students, and Distance*

- Learners*, ed. Trudi E. Jacobson and Helene C. Williams (New York: Neal-Schuman, 2000), 92–93.
37. Brinkman, Gibson, and Presnell, “When the Helicopters Are Silent,” 643.
 38. Vasti Torres, Al Reiser, Lucy LePeau, Laura Davis, and Jeffrey Ruder, “A Model of First-Generation Latino/a College Students’ Approach to Seeking Academic Information,” *NACADA [National Academic Advising Association] Journal* 26, 2 (2006): 66, <https://www.nacada.ksu.edu/Resources/Journal.aspx>.
 39. Paula R. Dempsey and Heather Jagman, “‘I Felt Like Such a Freshman’: First-Year Students Crossing the Library Threshold,” *portal: Libraries and the Academy* 16, 1 (2016): 91, <http://indigo.uic.edu/handle/10027/20308>.
 40. Tyckoson, “Library Service for the First-Generation College Student,” 96–97.
 41. Breivik, *Open Admissions and the Academic Library*; and Tyckoson, “Library Service for the First-Generation College Student.”
 42. See, for example, Adriene Lim, “The Readability of Information Literacy Content on Academic Library Web Sites,” *Journal of Academic Librarianship* 36, 4 (2010): 296, doi:10.1016/j.acalib.2010.05.003; Klein, “Reducing Library Anxiety through Career Explorations at Eastern Kentucky,” 217; and Tien-I Tsai, “Coursework-Related Information Horizons of First-Generation College Students,” *Information Research* 17, 4 (2012), <http://www.informationr.net/ir/17-4/paper542.html#.WqqbumaZOV5>.
 43. Examples include Brinkman, Gibson, and Presnell, “When the Helicopters Are Silent,” 643; Karen A. Neurohr and Lucy E. Bailey, “First-Generation Undergraduate Students and Library Spaces: A Case Study,” in *Assessing Library Space for Learning*, ed. Susan E.

- Montgomery (Lanham, MD: Rowman & Littlefield, 2017),” 168; and Tsai and Kim, “First-Generation College Students’ Information Seeking,” 1.
44. Instances include Trott, Barrett, Ghezzi, and Satterfield, “Jay Gatsby Goes to College,” 11; Hassig, “Their First Encounter,” 46; and Simmons-Welburn, “Designing Effective Instructional and Outreach Programs,” 223.
45. See, for example, Brinkman, Gibson, and Presnell, “When the Helicopters Are Silent”; Simmons-Welburn and Welburn, “Cultivating Partnerships”; and Tsai, “Coursework-Related Information Horizons of First-Generation College Students.”
46. Tyckoson, “Library Service for the First-Generation College Student,” 91–98.
47. *Ibid.*, 99–104.
48. Hudson, “On ‘Diversity’ as Anti-Racism in Library and Information Studies,” 6.
49. For a discussion of reasons students do not seek assistance from librarians, see Susan Miller and Nancy Murillo, “Why Don’t Students Ask Librarians for Help? Undergraduate Help-Seeking Behavior in Three Academic Libraries,” in *College Libraries and Student Culture: What We Now Know*, ed. Lynda M. Duke and Andrew D. Asher (Chicago: American Library Association, 2012), 49–70.
50. Wagner, “The Academic Library and the Non-Traditional Student,” 46.
51. Jordan G. Yee, “Librarians as Matchmakers: Connecting Seniors in their Capstone Semester,” *Reference Services Review* 35, 2 (2007): 261, doi:10.1108/00907320710749173.
52. Brinkman, Gibson, and Presnell, “When the Helicopters Are Silent,” 647.
53. *Ibid.*, 648.
54. Firouzeh Logan and Elizabeth Pickard, “First-Generation College Students: A Sketch of Their Research Process,” in Duke and Asher, *College Libraries and Student Culture*, 121.

55. Tsai, "Coursework-Related Information Horizons of First-Generation College Students."
56. Dallas Long, "Latino Students' Perceptions of the Academic Library," *Journal of Academic Librarianship* 37, 6 (2011): 508, doi:10.1016/j.acalib.2011.07.007.
57. Dempsey and Jagman, "I Felt Like Such a Freshman," 93–99.
58. Long, "Latino Students' Perceptions of the Academic Library," 508.
59. Tsai, "Coursework-Related Information Horizons of First-Generation College Students."
60. Ibid.
61. Logan and Pickard, "First-Generation College Students," 114–16.
62. Krista M. Soria, Shane Nackerud, and Kate Peterson, "Socioeconomic Indicators Associated with First-Year College Students' Use of Academic Libraries," *Journal of Academic Librarianship* 41, 5 (2015): 639, doi:10.1016/j.acalib.2015.06.011.
63. Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent," 648; Jan Conway, Tania Olsson, and Nick Veale, "Make the Numbers Count: Improving Students' Learning Experiences," *SCONUL* [Society of College, National and University Libraries] *Focus* 45 (2009): 92, <https://www.sconul.ac.uk/sites/default/files/documents/Focus%2045.pdf>; and Logan and Pickard, "First-Generation College Students," 120.
64. Logan and Pickard, "First-Generation College Students," 124.
65. Conway, Olsson, and Veale, "Make the Numbers Count," 92.
66. Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent," 648.
67. Long, "Latino Students' Perceptions of the Academic Library," 505.
68. Ibid., 511.
69. Neurohr and Bailey, "First-Generation Undergraduate Students and Library Spaces," 174.
70. Ibid., 178.

71. Frans Albarillo, "Super-Diversity and Foreign-Born Students in Academic Libraries: A Survey Study," *portal: Libraries and the Academy* 18, 1 (2018): 79, doi://doi.org/10.1353/pla.2018.0004; and Long, "Latino Students' Perceptions of the Academic Library," 511.
72. Long, "Latino Students' Perceptions of the Academic Library," 510.
73. Diane Dallis and Emily Okada, "Tale of Two Collaborations," in Dewey, *Library User Education*, 233.
74. Krista M. Soria, Jan Fransen, and Shane Nackerud, "Beyond Books: The Extended Academic Benefits of Library Use for First-Year College Students," *College & Research Libraries* 78, 1 (2017): 20, doi:10.5860/crl.78.1.8; and Tiffany LeMaistre, Qingmin Shi, and Sandip Thanki, "Connecting Library Use to Student Success," *portal: Libraries and the Academy* 18, 1 (2018): 137, <https://doi.org/10.1353/pla.2018.0006>.
75. Neurohr and Bailey, "First-Generation Undergraduate Students and Library Spaces," 168.
76. Jennifer A. Dixon, "First Impressions: LJ's First-Year Experience Survey," *Library Journal* 142, 8 (2017): 32, <https://lj.libraryjournal.com/2017/04/academic-libraries/first-impressions-ljs-first-year-experience-survey/>.
77. Logan and Pickard, "First-Generation College Students," 113.
78. Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent," 647.
79. Elizabeth Pickard and Firouzeh Logan, "The Research Process and the Library: First-Generation College Seniors vs. Freshmen," *College & Research Libraries* 74, 4 (2013): 411, doi:10.5860/crl-348.
80. Dempsey and Jagman, "I Felt Like Such a Freshman," 100.
81. Neurohr and Bailey, "First-Generation Undergraduate Students and Library Spaces," 178.

82. Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent," 647; and Torres, Reiser, LePeau, Davis, and Ruder, "A Model of First-Generation Latino/a College Students' Approach to Seeking Academic Information," 66.
83. Tsai, "Coursework-Related Information Horizons of First-Generation College Students."
84. Among the many examples of collaboration with various campus units are Tammy J. Eschedor Voelker, "The Library and My Learning Community: First Year Students' Impressions of Library Services," *Reference & User Services Quarterly* 46, 2 (2006): 72–80, <https://doi.org/10.5860/rusq.46n2.72>; Rajinder Garcha and Julia Baldwin, "Bibliographic Instruction for the Upward Bound Residential Students," *Reference Librarian* 27, 58 (1997): 135–41, doi:10.1300/J120v27n58_13; Haras and McEvoy, "Making the Bridge"; and Yee, "Librarians as Matchmakers."
85. Cheryl Riley and Barbara Wales, "Academic Librarians and Mentoring Teams: Building Tomorrow's Doctorates," *Technical Services Quarterly* 14, 3 (1997): 8, http://dx.doi.org/10.1300/J124v14n03_018.
86. Adriana Parker, "Academic Libraries and Vulnerable Student Populations: A New Model of Embedded Librarianship for First-Generation University Students," *Political Librarian* 3, 1 (2017): 28, <https://openscholarship.wustl.edu/pollib/vol3/iss1/9>.
87. Ibid., 30.
88. Ibid.
89. Dallis and Okada, "Tale of Two Collaborations," 233.
90. Hassig, "Their First Encounter," 54.

91. R. Allan Dermott, Dorin Schumacher, and Stephen J. Pinzari, "Searching for Clues among the Stacks: A Motivational Library Skills Program That Works," *Reading Psychology* 1, 1 (1979): 41.
92. Rachel Dineen and Lyda McCartin, "An Unfinished Journey: Becoming Critical Educators," in *Credit-Bearing Information Literacy Courses: Critical Approaches*, ed. Jessica Critten and Angela Pashia (Chicago: ACRL, forthcoming).
93. Julie Obst and Joe Eshleman, "Librarians and Students: Making the Connections," in *Not Just Where to Click: Teaching Students How to Think about Information*, ed. Troy A. Swanson and Heather Jagman (Chicago: ACRL, 2015), 303.
94. *Ibid.*, 296.
95. Dempsey and Jagman, "I Felt Like Such a Freshman," 100.
96. Obst and Eshleman, "Librarians and Students," 305.
97. Neurohr and Bailey, "First-Generation Undergraduate Students and Library Spaces," 178.
98. Nguyen and Nguyen, "Is the 'First-Generation Student' Term Useful for Understanding Inequality?" 149–50.
99. *Ibid.*, 148.
100. See, for instance, Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent"; and Torres, Reiser, LePeau, Davis, and Ruder, "A Model of First-Generation Latino/a College Students' Approach to Seeking Academic Information."
101. González, Moll, Tenery, Rivera, Rendón, Gonzalez, and Amanti, "Funds of Knowledge for Teaching in Latino Households."
102. Examples include Brinkman, Gibson, and Presnell, "When the Helicopters Are Silent"; Conway, Olsson, and Veale, "Make the Numbers Count"; Logan and Pickard, "First-

Generation College Students”; Long, “Latino Students’ Perceptions of the Academic Library”; Neurohr and Bailey, “First-Generation Undergraduate Students and Library Spaces”; Pickard and Logan, “The Research Process and the Library”; and Tsai, “Coursework-Related Information Horizons of First-Generation College Students.”

103. Robert V. Labaree, “Encounters with the Library: Understanding Experience Using the Life History Method,” *Library Trends* 55, 1 (2006): 121–39, <https://doi.org/10.1353/lib.2006.0048>.
104. John W. Creswell and Cheryl N. Poth, *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, 4th ed. (Los Angeles: SAGE, 2018), 73.
105. Sharan B. Merriam and Elizabeth J. Tisdell, *Qualitative Research: A Guide to Design and Implementation*, 4th ed. (San Francisco: Jossey-Bass, 2016), 57.
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