Influencing Factors on the Pursuit of Graduate Degrees in Agricultural Social Sciences

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Abstract

This study examined the motivating factors that influenced prospective graduate students' choice in pursuing an advanced degree and choosing an institution at which to study. This article articulates the qualitative piece of a larger study which sought to understand these reasons and why they were important. Interviews from 15 current graduate students at two land-grant universities were coded and thematically analyzed according to phenomenological reduction procedures. Results of the study indicate that prospective graduate students highly weigh (1) funding opportunities, (2) external factors such as career advancement or higher pay, (3) personal growth and learning opportunities, and (4) perceived flexibility within their program when applying for graduate programs in areas of agricultural education, agricultural communication, extension education or agricultural leadership development. Finally, doctoral students felt the opportunity to conduct research was also an important factor, although most master's degree students disagreed. Future recommendations for research included identifying differences in motivations for students of different demographics and more deeply exploring students' understanding of possible funding opportunities and processes.

Keywords: graduate degree; graduate school; institution choice; agricultural social sciences; motivation

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Introduction

Higher education aspirations are on the rise and are often treated as an expectation for most high school graduates (Eagan et al., 2014). With the increasing number of students interested in post-baccalaureate graduate education, researchers, policy-makers, and educators have become particularly interested in what experiences encourage or discourage students from considering post-baccalaureate education (Hanson, Paulsen, & Pascarella, 2016; Millet, 2003). Previous research on graduate degree aspirations focused primarily on American students' background characteristics such as race, sex, and socioeconomic status (Pascarella, Wolniak, Pierson, & Flowers, 2004). Additional research has demonstrated that students' majors have significant impact on graduate

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school aspirations and enrollments. Students majoring in some fields of study, such as mathematics and the sciences, are significantly more likely to enroll in graduate programs compared to their peers majoring in other fields (Mullen, Goyette, & Soares, 2003; Zhang, 2005). Furthermore, while a bachelor's degree is considered as the equalizing accomplishment, the impact of such degree can vary substantially by field of study and job market, particularly in the years immediately following graduation (Monaghan & Jang, 2017). Although certain fields have been investigated, regarding graduate student matriculation and experience, the unique differences in graduate school enrollment and impact based on field of study, fueled the question of what leads students to select and enroll in graduate programs focused on agricultural social sciences. According to the United States Department of Agriculture 2015-2020 report on employment opportunities for college graduates, only 61% of ANR job openings will be filled by ANR graduates, leaving employers to look to other fields to fill the remaining 39% of jobs (Goecker, Smith, Fernandez, Ali, & Goetz Theller, 2015). As the demand for agriculture and natural resources (ANR) educators and professionals continues to increase, it is imperative that graduate programs understand the impact certain factors have on student decisions to pursue and enroll in such programs to assist with recruitment, retention, and overall degree completion. As such, this study examined what factors served as motivation for students to enroll in graduate programs within agricultural social sciences at two land-grant universities.

Literature Review

Theory of Planned Behavior

Understanding the motivational factors behind a student's reason for selecting a graduate program of study can serve to aid educators and program administrators in the design of education programs (Hegarty, 2011). Not only do personal factors inform a student's decision to go to graduate school, these factors also influence a student's choice of institution. The theory of planned behavior explores the underlying cognitive aspects for behavior change and can be used to examine the motivation behind student graduate program choices (Ajzen, 2012). Ajzen posited that human action is guided by the connection between behavioral beliefs, normative beliefs, and control beliefs. Meaning, human action occurs due to the interaction of the likely outcomes of a behavior with social norms and expectations, as well as with other factors that may enable or hinder behavior. A person's attitudes reflect their behavioral beliefs and perceptions of probable outcomes of a behavior, as well as if specific behaviors are positively or negatively valued. Normative beliefs are the social pressures associated with a specific behavior and subjective norms are an individual's perceptions about the behavior. Control beliefs refer to a person's perceived behavioral control, including factors that may facilitate or impede a behavior (Ajzen, 2012). An individual's intentions can thus be predicted from attitudes, subjective norms, and perceptions of behavioral control.

When selecting a graduate program of study, prospective students consider the outcomes of earning a graduate degree, in addition to their own values of continuing education. Normative beliefs result in perceived social pressures, such as encouragement from family and friends to complete a graduate degree program. Ultimately, the effects of an individual's attitude toward a behavior and subjective norms on intention are moderated by their perception of behavioral control. Thus, the more favorable the attitude and subjective norms and the greater the perceived control, the stronger the person's intention to perform the behavior in question (Ajzen, 2012).

Ingram, Cope, Harju, and Wuensch (2000), used the theory of planned behavior to "predict college students' intentions and behaviors related to graduate school admissions from their attitudes, subjective norms and perceived behavioral control" (p. 217). The authors found that attitude, subjective norms, and perceived behavioral control were correlated with each other and

that each contributed to predict a student's intention to apply to graduate school (Ingram et al., 2000). Thus, individuals who have a positive attitude toward graduate school, whose significant others or social network have a positive attitude toward graduate school, and those who believe they have some behavioral control over being admitted to graduate school are more likely to attend. Behavioral beliefs produce attitudes, intentions, and behaviors and reflect the information an individual has in relation to the performance of a given behavior (Ajzen, 2012). As a result, the theory of planned behavior can "increase understanding of the factors that influence and determine students' application behaviors" (Ingram et al., 2000, p. 222). Graduate programs can use this increased understanding to inform their practices when recruiting graduate students to their programs.

Self-Efficacy

Stemming from an individual's perceived behavioral control is their feelings of self-efficacy or their beliefs about their capabilities to perform a given action (Bandura, 1977). As attitudes prove an important variable when considering the intentions and subsequent behavior of prospective graduate students, an understanding of the role of self-efficacy in decision making is also useful (Ingram et al., 2000). Bandura (1989) asserts that individuals possess the agency to influence their own lives by effecting change in themselves and their situations through their own effort. Self-efficacy affects cognitive processes and can be self-hindering or self-aiding. Sources of self-efficacy include past performances, vicarious experiences or models, verbal persuasion, and emotional responses (Bandura, 1977). Within the sources of efficacy information, individuals attribute success to ability or effort, which in turn increases self-efficacy. According to Bandura (1989), increased efficacy equals the visualization of more success scenarios, which in turn affects motivation and persistence.

Bandura's definition of self-efficacy considers the cognitive aspects that occur internally when an individual is choosing behaviors. According to Bandura, both motivation and goal-setting are rooted in cognitive activities such as the activation and persistence of behaviors (Bandura, 1977). This implies Ajzen's theory of planned behavior, in which perceived behavioral control is an individual's beliefs about their ability to initiate a specific behavior (Ajzen, 2012). Using Ajzen's theory of planned behavior, an individual's intention signals their readiness to initiate a behavior. Positive intentions lead to the likelihood of an observable response or behavior change (Ajzen, 2012). When individuals have positive intentions and the agency to initiate behavior change, then they have a higher self-efficacy. As a result, "the greater the increments of self-perceived efficacy, the greater the changes in behavior" (Bandura, 1977, p. 206). The likelihood of a behavior occurring is a function of the strength of an individual's efficacy expectation (Bandura, 1977). Therefore, an individual's self-efficacy beliefs are one factor informing their choice to attend graduate school.

Institution Choice

Once an individual has the positive intention and the agency to apply to graduate school, the individual must then weigh their options in the selection of an institution. Bersola, Stolzenberg, Love, and Fosnacht (2014) asserted that although there is a multitude of literature on the college choice process for undergraduate students, there is limited research into the college choice process for graduate students. English and Umbach (2016) agree that research on graduate college choice lags behind that of undergraduate college choice, with few studies drawing from nationally representative samples. Studies of institution choice cite multiple demographic factors, such as gender, socioeconomic status, ethnicity, and marital status as influencing the selection of a graduate

institution (Lei & Chuang, 2010). Earlier studies suggest that students selecting a graduate institution face different constraints than undergraduate applicants, including opportunities for funding, employment needs for the applicant and/or significant other, location, and familial responsibilities (Kallio, 1995). Due to these constraints, the desirable characteristics of a graduate institution vary widely among graduate students.

Bersola et al. (2014), found that even though students begin by considering a wide array of institutions, their process of filtering their choices to a single institution "appears to be rather uniquely tailored to the individual" (p. 536). A study of doctoral students' institution choice at a selective, research-intensive university concluded that students considered faculty quality the most important factor in selecting an institution, followed by research quality, faculty access, and program reputation (Bersola et. al, 2014). The majority of respondents that were admitted to a doctoral program received some form of funding, either through a fellowship or a research or teaching assistantship. As a result, students who received funding were more likely to enroll in the institution than those who did not. Ultimately, a student's decision to enroll in a graduate program was determined by the level of importance they placed on certain program and institutional characteristics (Bersola et. al, 2014).

Similarly, English and Umbach (2016) continued the exploration of factors in the decision to attend graduate school, as well as how undergraduate institution characteristics impact graduate school choices. The researchers found that "individuals weigh the monetary benefits and costs of graduate education and select the option that maximizes their utility" (English & Umbach, 2016, p. 197). In addition, they explored how students weighed the benefits of attending graduate school as compared to the earnings they would forego through not entering the workforce after graduating with a bachelor's degree. English and Umbach (2016) found that "variables associated with students are more powerful in shaping graduate school choice decisions than characteristics of the undergraduate institution they attended," although undergraduate major did influence a student's decision to pursue graduate education (p. 204). The researchers recommended further research on the role of funding in institution choice and further studying the institutional choices of underrepresented minority students. By understanding the individual student factors that influence the decision to pursue graduate education, graduate school programs can improve their educational equity and their program efficiency (English & Umbach, 2016).

Graduate Program Choice

Similar studies have been conducted to understand the factors that influence graduate program choice. Poock and Love's (2001) study explored factors influencing the program choice of higher education administration doctoral students. Results showed that factors vary by gender, enrollment status, age, and race. Some factors involving faculty, such as friendliness, positive interactions, and unsolicited contact with faculty were highly rated. Other factors associated with the academic program were rated highly, such as flexible program requirements, course offerings, and program rigor. In addition, the reputation and location of the institution were also ranked highly (Poock & Love, 2001). This study concluded that prospective students want to attend a friendly and welcoming institution. Also, that prospective students consider social influences like those of a partner, students currently enrolled in the program, or current professionals in the field when selecting a graduate institution (Poock & Love, 2001). More recently, Hands (2018) explored doctoral student motivation to attend library and information science graduate programs. Factors motivating doctoral students in library and information science programs included "research-related interests, previous educational experiences, preparation for the future, appeal of the scholarly environment, and encouragement from respected others" (p. 17). Students apply to doctoral programs with a wide range of experiences that contribute to their decision to earn a

doctoral degree. Hands (2018) also found that students were motivated by learning something new, continuing study in an area of personal interest, achieving a personal goal, and preparation for a future career.

Although some studies have explored graduate program choice, "models describing the program choice of graduate students are clearly lacking" (Poock & Love, 2001, p. 206). Current models largely address the college choice process for undergraduate students and do not focus on college choice for graduate students. Poock and Love (2001) indicated further research was needed in replicating their study, to explore graduate student choice from a qualitative perspective, and to explore program choice for students in fields other than higher education administration. Similarly, Ramirez (2013) discussed how much the college choice literature has focused on high school and community college students, rather than the graduate school choice process. Ramirez's study further explored the graduate school choice process by researching college choice for Latinos/as in doctoral education. Bersola et. al (2014) reinforced that most "administrators and staff are unsure about the attitudes and behaviors of applicants during the admissions cycle" and that this is a topic with a limited body of knowledge (p. 516). The agricultural social science discipline, inclusive of majors such as agricultural education, agricultural communication, extension education and agricultural leadership development, is one area where such research is needed. Understanding the factors that influence a student's decision to pursue a graduate degree in agricultural social sciences and in the selection of a specific institution will aid program administrators in the design of their educational programs.

Purpose and Objectives

The purpose of this study was to determine the factors that influence a student's decision to pursue a graduate degree in agricultural social sciences, as well as to identify those factors influencing their choice of institution. Specifically, this study sought understanding for the following questions.

1. What factors are important for prospective graduate students to pursue an advanced degree?
2. What factors influence a prospective graduate student to choose their institution when pursuing an advanced degree in agricultural social sciences?

Exploration of these factors in this discipline aids in meeting Research Priority 4 of the American Association of Agricultural Education (AAAE) National Research Agenda (2016): Meaningful, Engaged Learning in All Environments. Specifically, this research addresses the following research priority question: "How can delivery of educational programs in agriculture continually evolve to meet the needs and interests of students?" (Edgar, Retallick, & Jones, 2016, p. 39).

Methodology

Research Design

The data reported in this paper are part of a larger project, which utilized a sequential mixed-methods study. First, a Delphi method was utilized, which allowed participants to answer self-administered questionnaires individually and anonymously over a series of rounds (Fink, Kosecoff, Chassin, & Brook, 1984). This quantitative portion was administered over two rounds using a questionnaire distributed via Qualtrics to graduate students at either the University of Florida or The Ohio State University, with a self-selected major in agricultural social sciences. The goal of the questionnaires was to get a ranked list of factors that influenced students' decision to

pursue a graduate degree, and which qualities influenced their institution choice. Those results were used to inform the qualitative piece of the study. This paper only reports on the qualitative data of the study.

This qualitative arm of the study used phenomenology, which examines the lived experiences of multiple individuals to determine shared meaning in the context of a specific phenomenon (Creswell & Poth, 2018). Phenomenology also has two subcategories: hermeneutical and transcendental (Creswell & Poth, 2018). Transcendental phenomenology, as described by Moustakas (1994), requires researchers to first identify the concept to study, reflect on their own previous experiences with the concept and bracket out those experiences to identify potential biases, and collect data from several individuals that have lived through the identified phenomenon. This study aimed to describe the factors which influence a graduate student's decision to attend graduate school and select a specific program. The researchers' reflexivity statements follow, along with the thematically-grouped data.

Reflexivity

Within qualitative research, researchers must understand their own experiences with the phenomenon being observed and recognize biases that exist due to those experiences which could influence the interpretation of the data (Creswell & Poth, 2018; Tracy, 2010). Through a process of bracketing those experiences, or reflexivity, a researcher enhances their study's trustworthiness because it allows researchers to examine the phenomenon with a new, fresh perspective (Creswell & Poth, 2018; Crotty, 2003). The following paragraphs serve as a reference for the reader to understand the backgrounds of each member of the research team as they pertain to this study.

Our three-person research team was comprised of one master's student, one doctoral student, and one assistant professor, all within the agricultural education and communication department at the University of Florida. The lead researcher is a full-time marketer at the university, where his duties partly include creating strategy to recruit graduate students. He is a part-time master's student, but earned his undergraduate degree from Ohio State, so he served as the point of contact with the sample of the population from that university, distributing questionnaires and conducting interviews.

The second researcher is a full-time undergraduate advisor and part-time doctoral student. She holds a bachelor's degree and two master's degrees, but all are in disciplines that do not fall within agricultural social science. Her studies focus on leadership education and development, including leadership identity development. She served as the main point of contact with the UF sample of the population of that university distributing the questionnaires and conducting many of the interviews.

The final researcher is an assistant professor. She specializes in identity development, culture, diversity, social justice, and equity within access to higher education and leadership development. She served as a consultant and advisor for our methodology and assisted in interview data collection. Additionally, she serves as an advisor to an agricultural graduate student organization and as a member of her department graduate committee.

Participant Selection

In order to be considered for this study, participants were a current student at the time of invitation, or accepted an admittance decision to pursue a doctorate or master's degree in agricultural education, agricultural communication, agricultural leadership development or

extension education at either Florida or Ohio State. A total of 151 students met the criteria. A total of 20 students, 10 from each university, were invited to interview for this study. The 20 students were comprised of a random stratified sample (Ary, Jacobs, Sorensen, & Walker, 2014) of five male and five female students from each university, who had completed the first two rounds of the questionnaire. Fifteen accepted the invitation to interview.

Data Collection

The data from the first two quantitative rounds were used to create the interview questions for the qualitative round of the study. This piece involved a series of semi-structured interviews. At the end of quantitative questionnaires, respondents were asked if they would like to volunteer for an interview to discuss their motivation for attending graduate school in more detail. Polkinghorn (1989) stated that phenomenological research should focus on interviews of five to 25 participants. The qualitative piece of this study examined the lived experience of 15 individuals that accepted the invitation to interview. Of the 15, eight were from Florida and seven were from Ohio State. Additionally, eight were students pursuing a master's degree, and seven were pursuing a doctorate. Table 1 shows a further breakdown of participants' demographics. The qualitative data is reported in this paper because the researchers wanted a holistic view of the factors that influence a graduate student to pursue an advanced degree in agricultural social sciences. The quantitative questionnaires were needed to ensure the questions asked in the interviews were reliable (Ary et al., 2014). Therefore, the rest of this section is focused on measures to increase quality in qualitative research.

Once the interviews were conducted and transcribed, data analysis followed the process consistent with phenomenological reduction (Moustakas, 1994). In this process, the researchers read each transcript several times to familiarize ourselves with the data and explore the perspectives, descriptions, and details the participants provided. Following, we created meaning units, or codes (Harding, 2013) tied to the phenomenon we were studying. Lastly, we clustered the codes into overarching themes, using similar words and phrases to support each theme.

Table 1

Participant Demographics

Pseudonym	Institution	Gender	Residence	Degree	Enrollment
Dwight	OSU	M	Out-of-state	Ph.D.	Full-time
Stanley	OSU	M	In-state	Ph.D.	Part-time
Jan	OSU	F	In-state	Ph.D.	Part-time
Erin	OSU	F	In-state	M.S.	Part-time
Phyllis	OSU	F	Out-of-state	M.S.	Full-time
Holly	OSU	F	In-state	M.S.	Part-time
Kelly	OSU	F	In-state	M.S.	Part-time
Toby	OSU	M	International	Ph.D.	Full-time
Nellie	UF	F	In-state	Ph.D.	Part-time
Pam	UF	F	In-state	Ph.D.	Part-time
Angela	UF	F	In-state	Ph.D.	Part-time
Michael	UF	M	Out-of-state	M.S.	Full-time
Andy	UF	M	In-state	M.S.	Full-time
Kevin	UF	M	In-state	M.S.	Part-time
Meredith	UF	F	In-state	M.S.	Full-time

Quality in Qualitative Research

To conduct qualitative research that is high quality, Tracy (2010) mentioned that the presence of credibility and trustworthiness are imperative. Credibility and trustworthiness are qualities that help explain the dependability of the research findings, and are achieved by triangulating multiple sources of data. This study included three rounds of data collection, in which three researchers separately analyzed the data and built consensus after each round. The multiple sources of data and multiple researchers coming to the same conclusions all serve as triangulation methods. Additionally, rich descriptions of the data including quotations from the participants were provided to create multivocality (Tracy, 2010). It is also important to note that due to the major focus of this study being qualitative, the findings should not be generalized beyond the sample. However, qualitative research can be transferable if the population in which the findings are transferred to are represented with similar demographics (Ary et al., 2014).

Results

The thematic analysis performed on data from student interviews organized findings and enabled further generalizations. The coding process provided analysis of relationships between the open code categories which allowed for understanding of factors that influence a students' decision to pursue a graduate degree in agricultural social sciences and their selection of an institution. Findings reported address the research objectives assessed in the study.

Importance of Funding

The most prominent theme found was that students identified funding as a necessary component or the most important factor in their decision to pursue a graduate degree in agricultural social sciences and in their institutional choice. Similar to Bersola et. al, (2014), most participants received some form of funding to pursue graduate education. All but one student interviewed received some type of funding or assistance from their institution. However, the self-funded student, Kevin, expressed his desire to receive funding, saying, "I'm looking to get a job at UF that has the EEP program [employee education program]." The remaining participants received funding or tuition assistance through the following means: employee education program benefits for working full-time at the institution, graduate teaching or research assistantships, or graduate fellowships. Many students cited receiving funding as the reason they were able to pursue graduate studies. For instance,

> I wanted to pursue a master's degree and this degree specifically, but I think funding made it more, I guess applicable to my situation…definitely made it more feasible for my situation and made it more enticing to do it as well (Andy).

Erin mentioned receiving "a hundred percent free tuition for being an Ohio State employee and that is what I'm taking advantage of right now." Some full-time employees expressed the need to remain in their careers, while attending graduate school, such as Dwight. He stated, "I could not leave secondary administration at the rate of pay that I was earning to come back to graduate school without some sort of funding…There's just no way. There's just no way." Funding provided the greatest opportunity for students to pursue a graduate degree in agricultural social science programs.

Students also revealed they would not have pursued graduate school had they not received funding. Holly stated, "there's no way I could" and "without that [online master's] program and being employed through the university, there is no way I could afford to study." Jan, a part-time student receiving employee tuition assistance, explained,

> It was nine years to do this degree alone…and I don't think I would have persisted over that long and extended period of time, especially as a part-time student, had it not been free.

Regarding the possibility of pursuing a doctoral degree without funding, Nellie stated,

> Probably not, even though it's always been like one of my major life goals. If I hadn't either been working for UF or been on like an assistantship or a fellowship, I probably would not have pursued it, mainly because the only other option for graduate students is loans and that's a lot of money. I have some loans still for my master's degree that I'm still paying off 10 years later and so I don't think that I would willingly take on that debt again.

Even though most students stated that they would not be currently pursuing a graduate degree without funding, some expressed they would have taken other paths to graduate school. For example, Stanley stated, "I would probably be pursuing it, but it would have probably taken me longer because of the cost. I would have had to spread it out more." Pam stated, "I probably would have paid for a master's degree, but I don't think that I would have pursued a doctoral degree right now if it wasn't for the financial assistance." Without funding, some students expressed the need to have returned at a later date to pursue graduate studies. Kelly stated,

> I have an assistantship…If I did not receive funding, I probably would not have started grad school right away. I most likely would have tried for an extension position or some job that would have paid for it because I really didn't want to have to pay for another degree.

Similarly, Meredith stated, "I don't have the money for it…I may have come to grad school later in life, but I definitely would not have done it right after undergrad."

> Ultimately, as in Bersola et. al (2014), funding proved the decisive factor in a majority of students' decision to pursue graduate education. For instance, when discussing the employee education program, Pam stated,

> It provided more tuition assistance in my job than an assistantship would and so it just kind of made a bit more financial sense, while also kind of adding to what I wanted to ultimately do with my career and gain more skills that way.

Others, like Phyllis, confirmed the role of funding in graduate program choice when she stated:

> I think funding is the most talked about aspect in the cohort. Everybody that I talked to made a quick decision to come to our program based on funding, based on availability of funding and promised funding for their duration of time here.

By receiving funding, students could then focus on additional program characteristics that were important to them.

Factors External to Self

Aside from funding as a critical factor in the decision to pursue a graduate program in agricultural social sciences, students identified multiple extrinsic factors that contributed to their decision. All students viewed their graduate degree program as contributing to their career goals, whether they were future career goals or goals to propel them forward in their current positions. Understanding research and being able to apply theory to practice were important motivators for students to pursue graduate studies. Many students were currently employed, or desired employment, in an area of agricultural social science and saw a graduate program as a means to learning the skills they would need in the profession. Toby stated, "I wanted to be a really good researcher" and "I think this degree directly connects to what I'm doing." Those students who were full-time professionals valued the opportunity to connect their studies with their current roles. For example, Stanley stated, "My expectation was to always try to align my assignments to my career so that they counted twice." In addition, many students understood that a graduate degree was required for their ultimate career goals and provided the opportunity to be a competitive job applicant. Andy pointed out the benefits of a graduate assistantship in providing

pertinent experience. He stated that his assistantship "helps facilitate my career as it puts me around an academic discipline…I'm able to draw from leadership theories and leadership education to help push students further in their careers." Ultimately, a graduate program is seen by students as an opportunity to gain knowledge and experience that will serve them in their careers, an opportunity to qualify for more competitive jobs, and the opportunity to connect theory and practice.

Several program factors also contributed to students' external motivations in pursuing graduate studies in agricultural social sciences. Curriculum and program offerings at each institution played a role in the decision-making process for many students. Students identified a varied range of classes, online course options, and curriculum flexibility to tailor their degree to their personal interests as curricular factors. Nellie stated, "I knew what I wanted to write my dissertation on…I actually went to departments where I thought it would fit and kind of interviewed departments and faculty." In addition to curriculum, students also considered faculty in their decision to attend a specific program. Many students considered faculty research interests and their personal connections with faculty members in their prospective department. Pam stated,

> I knew…whoever my advisor would be was going to be really important in my development as a researcher, as a student, as a scholar and so it was really important in what I looked at as a whole.

Nellie and Pam's statements centering around advisors and faculty suggest that students are looking for mentorship, networking, and support from faculty in their graduate program of study. Holly expected "a lot of feedback from an advisor, an advisor who is willing to work with you and communicate clearly and communicate their expectations clearly." Perceived support from faculty was critical for Michael when choosing his graduate program. He shared one of his expectations coming in as a novice, stating, "I [expected I] would have people that would work with and support me in those situations of 'I don't know what to do here.'" It was important to students to have a good network of faculty who are both available and willing to assist students in the progression of their graduate program.

In addition to curriculum and faculty considerations, most students listed the location and reputation of the institution as a major factor in their decision to attend. Many students were aware of the reputation of their institution prior to applying. This information was gathered from department websites, alumni of the institution, or through national rankings. Some students were already alumni of their chosen graduate institution, which provided a sense of comfort and convenience when deciding where to pursue graduate school. For other students who worked full-time, the location of the institution combined with the ability to use employee education tuition assistance programs proved to be important.

Many students also mentioned personal life influences that impacted their decision to attend graduate school. Some had partners and/or families that needed to be considered when undertaking graduate school. Erin stated, "I have a two-year-old; so [the online program offering] just works better with my schedule." Dwight stated, "I decided to choose this specific program because I have a wife…I am a professional with a family structure." He chose to attend a university where his wife could have proximal employment. Considerations for employment and education for the partners and children of graduate students were weighted heavily in their decision of graduate school program. Along with personal and program factors, many students were encouraged by friends or family members to pursue graduate education.

Each student also evaluated their graduate program expectations when deciding to pursue a graduate degree in agricultural social science. Students had expectations of faculty and advisors, as well as specific learning objectives. Communication with faculty and advisors was important.

Nellie said, "Setting those expectations early with your advisor is really important to figuring out how you're going to be successful and how you're going to complete your degree." All students valued being challenged and exposed to diverse thinking and perspectives. As in Ajzen's Theory of Planned Behavior (2012), extrinsic factors, such as social norms and student expectations coupled with a student's perceived outcomes of attending graduate school led to their decision to enroll in a graduate agricultural social sciences program.

Personal Growth/Impact

Many graduate students balanced the extrinsic factors that influenced their decision with intrinsic desires they felt they wanted to improve. Mainly, the participants craved opportunities that stimulated their intellect or talked about their desire to learn. Often, graduate students balance their studies with various outside factors such as a full-time career or taking care of a family. Investing in this extensive opportunity takes careful consideration of the external rewards an advanced degree can bring, but some students obtain a master's or doctorate degree strictly because of their own personal motivation.

For many of the graduate students interviewed in our study, finding a program with academic rigor was important to create an intellectual challenge. Phyllis discussed her expectations that she considered when deciding which university and program to attend:

> I think my expectations were to be challenged in a, like I said, like a more adult manner. I don't know really, maybe a more mature manner. I didn't want any of the hand-holding that was in undergrad. I was expecting maybe more discipline, more independence, more leeway in following my own pursuits.

In addition to being treated as an adult throughout coursework Pam discussed the importance of finding a program that challenged her thought processes:

> I just wanted a program that- that challenged me in a way, that [the faculty] kind of challenged my thinking… In a lot of programs that I looked at, I was actually kind of turned away from because, after talking with some of the faculty in those programs a little bit more, it was very much a 'one way' kind of thinking and they weren't really open to different perspectives. I knew I wasn't going to get much out of that.

Continuing with the desire for a challenge, Andy stated, "that's really kind of why I came to graduate school, to learn more, push myself harder and further and especially at the University of Florida, I expect to be challenged." For these students, assigning "value" to a program was closely related to how much they would be able to create their own path of study in graduate school with professional and intellectual stimulation from the faculty with which they worked.

Other graduate students simply had a desire to learn more. Sometimes feeling that their undergraduate degree program did not adequately prepare them for a career in their field, they turned to graduate school to continue on a path of learning. Meredith mentioned that choosing a graduate program "was actually less about it being specifically a master's program and more about it being an opportunity to learn more in general." Learning happens in many forms in graduate school, inclusive of, but not limited to, the coursework. For Jan, learning through courses was a big proponent for choosing her program. She said, "I think what I wanted was a combination of things. I wanted information gained, you know, I wanted the information I was going to get out of the classes I took."

One international student compared his own prior experiences to graduate students in the United States. While he came to the U.S. to pursue a doctorate, his master's degree was obtained at an international university.

> [Graduate students in the United States] had a different experience. They have been to conferences. They do a lot of research which fascinated me. So [my experience] is more about learning my goals. Why did I come here? When compared to other grad students is- I came with a pretext… I am sure that I don't know anything, and that's a fact, so when I think that I don't know anything I am like, double charged that I need to learn everything. So that was my goal.

"To learn everything" was not the only goal brought up throughout participants' discussion about the reasons they chose to return to graduate school. Angela had been putting off getting her degree for a variety of reasons in her personal life, but she finally returned to earn her doctorate and offered this reflection:

> It's been a life goal and I wanted to do it. So I did it. I am doing it. But the other part about that is, I think at least most of us in education are lifelong learners and there's so much of this that I didn't know that I'm learning and it's just-- I get excited about it… After a period of time [in a career] you get a little stale and you need an injection of new information. You need an injection of energy to revitalize your program and that's why I did it.

The idea of getting a Ph.D. degree was kind of a bucket list item, but learning the new information throughout her program was a selling point in creating new life and energy in her career.

The personal desire to grow and learn was a common theme throughout the participants' journeys in pursuing their advanced degrees. Whether it came because they craved a challenge in their way of thinking, simply wanted to learn more in their field, or wanted the degree as a life goal, the expected growth throughout the graduate program was important.

Perceived Program Flexibility

There was one somewhat unexpected theme that emerged from the data, in regard to why a graduate student chose to specifically study agricultural communication, agricultural education, extension education, or agricultural leadership development. Many of the students noted that committing to these programs allowed them flexibility in their coursework to tailor their program in order to fit specific, niche interests or career options. Some students had a very specific and specialized career option they wanted to pursue, and obtaining an advanced degree in one of these areas allowed them to select coursework and committee members that would complement the students' experiences and leverage opportunity to secure a job in that area. Others wanted flexibility in the actual program experience. For example, the flexibility to take classes both online or in-person allowed them time to devote to balancing their other aspects of life. This need for flexibility coincided with a perception that these students felt they traveled a very unique path into graduate school and had expectations and motivations that differed from their peers.

Angela thought she was different from other graduate students in her cohort, so she was seeking flexibility in learning, rather than preparing for a career:

> I'm older than the students and I'm older than most of the professors. When you're working full-time a lot of things just get busy right here in front of you and then you suddenly realize that goal I was hoping to achieve when I was in my 40s and 50s didn't happen. And so it was one of those nagging things that I just wanted to accomplish. I think the same thing for most of [the other students in my cohort] is they're looking at going into their career. I already have it. I have a wonderful career. I enjoy it thoroughly. I--it is the best job I've ever had and so [preparing for a career is] not my goal. My goal is to gain more knowledge to be able to be more proficient and to get this thing I want done, done. So I'm sure my goal is very, very different than younger people. They're looking for a job. I got one. I got the best job.

The idea of experiencing something different because of being a part-time student and full-time employee was echoed amongst other part-time students. Stanley said, "I probably ended up with this degree program because I thought that they would be more friendly towards [working professionals]."

Graduate students also felt they were unique in selecting their program because of their life experience, and that experience allowed them to think through their needs for flexibility in their program. Dwight, a full-time student that returned to graduate school after working as an agriculture educator, thought he was unique in the way he chose his institution. "I approached this from a much different reason than any of my colleagues who started at the same point in time. I brought a different mentality because I had been working." Phyllis, who was also a full-time student, but went straight from her bachelor's degree into her master's degree program thought her interests made her unique when compared to her peers in her cohort.

> I think what I'm interested in is a little specialized. So, I was looking for professors who had a broad range of research interests and were not so honed in their own discipline that there wasn't any wiggle room for somebody who was interested in something different…
> I had to tailor this program to what I wanted it to be.

One other full-time student, Meredith, felt like her reasons for being in graduate school differed greatly from her peers.

> [Other students in this department] want to work on problems that are going to save the world. You know, they're really big honorable missions and I feel like me wanting to do equine stuff is not at all along those themes and is just because I like horses. So I really respect a lot of the people that are in this department because of that.

Even though the graduate students in agricultural communication, agricultural education, extension education, or agricultural leadership development in this study are pursuing the same Master of Science or Doctorate of Philosophy degree, there was a very common perception of having a unique educational experience throughout the degree program.

Research

Finally, we noticed the opportunity to conduct research was inconsistently important or not important throughout the interviews. At first, the data were separated to determine if there was a divide between the two universities (i.e., one university's students thought the opportunity to conduct research in a graduate program was crucial, while the other university's students did not see the importance). However, there were no large differences in how graduate students approached their decision to pursue an advanced degree at either university.

Next, the researchers separated the data between master's degree students and students pursuing a doctorate. In this process, it became very clear that an overwhelming majority of master's students did not recognize or consider the value of conducting research while choosing a graduate program, but doctoral students saw the value in possible research opportunities. Maxwell (2010) recognized the value of including numbers in qualitative research to help stress the scope of specific themes that emerged, and as such, each student's mentality toward research was counted in order to better understand the influence research opportunity had in students' choice to choose a graduate program.

While there was one master's student that did believe research was an important factor that should influence the decision to attend graduate school, the remaining seven did not. For example, Meredith offered this:

> I hadn't even considered research when I was going to grad school. I did not come here at all to do research. I--I guess I knew in the back of my mind I would have to do a thesis to graduate, but it was not at all a driving force for my interest.

Holly offered reflection that coincided with this statement.

> [Research] was a very new experience for me because my background; my undergrad is actually in education and it's not something you do typically… I'd never gotten to do any sort of research when I went through my research methods class. That--that was tricky. I felt like I was learning an entirely new language, but so it wasn't, it wasn't something that I was even necessarily thinking about. So [research] wouldn't have, it didn't factor in very highly to my decision [of going to graduate school].

Some students, like Michael, did not believe research to necessarily be unimportant, but realized that he was missing a lot of awareness or exposure to what 'research' meant. "I think one thing that I didn't realize as much is like the research process and how much research is part of becoming a faculty member at an institution." While Michael came to graduate school to obtain the credentials to one day be faculty, he misunderstood how much research plays a part in that career.

> Inversely, two doctorate students expressed that research was not as important as other factors. However, the remaining five doctorate students interviewed articulated they felt research was a very important piece to consider for graduate school. Jan stated:

> [Research] was something I wanted to do because I, especially with having been a master's student in higher ed student affairs, and knowing, sort of through that program, how much research it takes to really get to the heart of why things succeed or fail, and understanding what impact we are having on students… I did come into this sort of with the goal of really studying my own audience and getting to the heart of what makes it fit. You know, what makes it successful.

Toby recognized that earning a Ph.D. degree requires a large research project and mentioned that the research is what got him excited about the program.

> A Ph.D. is just learning really, yeah. You're doing more education, more study. And even research is more study… Every single time I think about university in the morning when I get up, I get so pumped up. Just the fact that I am here and I'm learning that--that's what makes me pumped up.

Finally, Dwight carefully considered the research access and opportunities he would have when he was selecting the institution he wanted to attend. For him, research was a focal criterium in his decision.

> Most schools offered me quality opportunities to engage in independent research, training to become a quality researcher. That's--that's a Ph.D. in our field. You are a researcher. So that's got to be priority number one.

There was inconsistency in the data about the importance of research between master's- and doctoral-level students. Yet, those (usually doctoral) students that saw value in research opportunities structured a lot of their decision-making processes around the research factors when selecting their program.

Conclusions, Implications, and Future Research

The purpose of this study was to advance knowledge about what motivates students to enroll in graduate programs within agricultural social sciences at land-grant universities. Students' motivation to apply to agricultural social sciences graduate programs are based on a range of experiences that have been shown to guide their choice and decision to apply and enroll in a graduate program. Results of the study show four major themes that were consistent among factors that impact motivation: 1) importance of funding, 2) extrinsic factors, 3) personal growth, and 4) perceived flexibility. For doctoral students, a fifth theme was added: opportunity to conduct

research. All participants acknowledged the important role funding played in their decision to pursue, enroll in, and complete a graduate degree, echoing Kallio's (1995) findings that illustrated that graduate program choice was constrained by varying factors, including funding needs.

Additionally, extrinsic factors were identified as having a strong impact on motivation. In particular, all participants believed that a graduate degree would prepare them for their future careers or further support them in their current careers and made note of curriculum and faculty support and mentorship opportunities. Most participants identified location and reputation of the institution and department as a factor in their selection decision while also taking into consideration personal life factors. As the third major theme, opportunities for personal growth were highlighted via participants having a desire to gain more knowledge and apply it to their current and/or future professions. These results align with Hands' (2018) study that also found that students' choice to pursue graduate school was motivated by the hope to gain new knowledge and achieve a personal goal of obtaining a graduate degree that would ultimately prepare them for future career opportunities.

The fourth and final theme present in the data centered around many of the participants' perception of having a unique experience, different from other peers', and having the ability to adapt their curriculum to their needs within an agricultural social sciences graduate program. Participants perceived having a unique experience based off specialized career, unique schedule, type of courses taken (in-person and online) and reason for pursuing a graduate degree. Finally, doctoral students felt the opportunity to conduct research was very important and should be carefully considered (e.g., making sure the student's research interests match faculty interests), but master's students did not articulate research to be important in their search.

Adding to the minimal body of research surrounding the experiences and motivation of students enrolling in social science agricultural graduate programs, this research highlights the important role funding plays in assisting individuals to pursue graduate school opportunities. This study also highlights the role played by institutions and faculty in influencing choice of program. In particular, students are looking for mentorship and guidance from faculty and efforts to support students play an important role in how students select programs. Results are expected to affect student recruitment and assist program administrators in developing doctoral programs that meet the professional and personal interests of students and designing services that support student retention and matriculation that can contribute to decreasing the current deficit of ANR educators and professionals in the field.

Limitations and Future Work

The purpose of this study was not to generalize but rather to begin a conversation about graduate student motivation to enroll and select a graduate program within the agricultural social sciences community and to serve as a baseline investigation. Limitations of this study relate to the sample size and institutional affiliation of participants. While this qualitative study did reach saturation at 15 participants, this sample size only represents a small population of graduate students enrolled in agricultural social sciences graduate programs. Future research could utilize a quantitative survey to distribute to more participants that will assist in highlighting a possible phenomenon among this population in regard to graduate program selection and enrollment. Additionally, participants represent two land-grant universities in the United States and it may be beneficial to pursue an inquiry that includes responses from all land-grant universities.

Since the unanimous factor that influenced participants' motivation to pursue and enroll in an agricultural social sciences graduate program was funding, future research regarding the knowledge, process, and overall experience of pursuing educational funding among this population

would be extremely beneficial for graduate education stakeholders. Finally, future research that looks at graduate student motivation across varying demographics, for example race, gender, and first-generation college student status will also prove beneficial to add to a greater understanding and support of this population. Limitations notwithstanding, the current research presents new insights on this populations' perspective that is of value to academic deans, graduate colleges, departments, and professional associations specializing in graduate student education.

References

Ary, D., Jacobs, L. C., Sorensen, C. K., & Walker, D. A. (2014). *Introduction to research in education.* (9th Edition). Belmont, CA: Wadsworth, Cengage Learning.

Ajzen, I. (2012). Theory of planned behavior. In P. A. M. Lange, A. W. Kruglanski & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 438-459). London, UK: Sage.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. doi:10.1037/0033-295X.84.2.191

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175-1184. doi:10.1037/0003-066X.44.9.1175

Bersola, S. H., Stolzenberg, E. B., Love, J., & Fosnacht, K. (2014). Understanding admitted doctoral students' institutional choices: Student experiences versus faculty and staff perceptions. *American Journal of Education 120*(4), 515-543. doi:10.1086/676923

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Crotty, M. (2003). *The foundations of social research: Meaning and perspective in the research process.* Thousand Oaks, CA: Sage Publications.

Eagan, K., Stolzenberg, E. B., Ramirez, J. J., Aragon, M. C., Suchard, M. R., & Hurtado, S. (2014). *The American freshman: National norms fall 2014.* Los Angeles: Higher Education Research Institute, UCLA.

Edgar, D. W., Retallick, M. S., & Jones, D. (2016). Meaningful, engaged learning in all environments. In Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). *American Association for Agricultural Education national research agenda: 2016-2020.* Gainesville, FL: Department of Agricultural Education and Communication.

English, D., & Umbach, P. D. (2016). Graduate school choice: An examination of individual and institutional effects. *The Review of Higher Education, 39*(2), 173-211. doi:10.1353/rhe.2016.0001

Fink, A., Kosecoff, J., Chassin, M., & Brook, R. H. (1984). Consensus methods: Characteristics and guidelines for use. *American Journal of Public Health*, *74*(9), 979-983. doi:10.2105/AJPH.74.9.979

Goecker, A. D., Smith, E., Fernandez, J. M., Ali, R., & Goetz Theller, R. (2015). Employment opportunities for college graduates in food, agriculture, renewable natural resources, and

the environment. *United States Department of Agriculture*. Retrieved from
https://www.purdue.edu/usda/employment/

Hands, A. S. (2018). What doctoral student motivation tells us about the future of LIS education.
Journal of Education for Library and Information Science, 59(3), 17-
25. doi:10.3138/jelis.59.3.2018-0014.03

Hanson, J. M., Paulsen, M. B., & Pascarella, E. T. (2016). Understanding graduate school
aspirations: The effect of good teaching practices. *Higher Education, 71*(5), 735–752.
doi:10.1007/s10734-015-9934-2

Harding, J. (2013). *Qualitative data analysis from start to finish.* Thousand Oaks, CA: Sage.

Hegarty, N. (2011). Adult learners as graduate students: Underlying motivation in completing
graduate programs. *The Journal of Continuing Higher Education, 59*(3), 146-151.
doi:10.1080/07377363.2011.614883

Ingram, K. L., Cope, J. G., Harju, B. L., & Wuensch, K. L. (2000). Applying to graduate school:
A test of the theory of planned behavior. *Journal of Social Behavior and Personality,
15*(2), 215-226.

Kallio, R. E. (1995). Factors influencing the college choice decisions of graduate students.
Research in Higher Education, 36(1), 109-124. doi:10.1007/BF02207769

Lei, S. A., & Chuang, N-K. (2010). Demographic factors influencing selection of an ideal
graduate institution: A literature review with recommendations for implementation.
College Student Journal, 44(1), 84-97.

Maxwell, J. A. (2010). Using numbers in qualitative research. *Qualitative Inquiry, 16*(6), 475-
482.

Millett, C. M. (2003). How undergraduate loan debt affects application and enrollment in
graduate or first professional school. *The Journal of Higher Education, 74*(4), 386–427.
doi:10.1353/jhe.2003.0030

Monaghan, D., & Jang, S.H. (2017). Major payoffs: Postcollege income, graduate school, and the
choice of "risky" undergraduate majors. *Sociological Perspectives, 60*(4), 722-246.
doi:10.1177/0731121416688445

Moustakas, C. (1994). *Phenomenological research methods.* Thousand Oaks, CA: Sage
Publications.

Mullen, A. L., Goyette, K. A., & Soares, J. A. (2003) Who goes to graduate school: Social and
academic correlates of educational continuation after college. *Sociology of Education*,
76(2), 143-169. doi:10.2307/3090274

Pascarella, E. T., Wolniak, G. C., Pierson, C. T., & Flowers, L. A. (2004). The role of race in the
development of plans for a graduate degree. *The Review of Higher Education, 27*(3),
299–320. doi:10.1353/rhe.2004.0006

Polkinghorne, D. E. (1989). Phenomenological research approach. *Existential-phenomenological in psychology*, 233-244.

Poock, M., & Love, P. (2001). Factors influencing the program choice of doctoral students in higher education administration. *NASPA Journal 38*(2), 203-223. doi:10.2202/1949-6605.1136

Ramirez, E. (2013). Examining Latinos/as' graduate school choice process: An intersectionality perspective. *Journal of Hispanic Higher Education 12*(1), 23-36. doi: 10.1177/1538192712452147

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837-851. doi:10.1177/1077800410383121

Zhang, L. (2005). Advance to graduate education: The effect of college quality and undergraduate majors. *The Review of Higher Education*, *28*(3), 313–338. doi:10.1353/rhe.2005.0030