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Moving up the Pipeline: Factors Associated with Interest in School Psychology Programs

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MOVING UP THE PIPELINE: FACTORS ASSOCIATED WITH INTEREST
IN SCHOOL PSYCHOLOGY PROGRAMS

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ABSTRACT

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IN SCHOOL PSYCHOLOGY PROGRAMS

Amrita Singh

Despite the growing number of minority students in U.S. public schools, only a small percentage of school psychology graduate students, trainers and practicing school psychologists identify themselves as racial minorities. Analyses were conducted on 512 responses to a national survey that investigated demographic and other qualitative factors that are associated with interest in school psychology master's and doctoral programs. Additionally, analyses were also conducted to examine demographic differences that exist between undergraduate students interested in PsyD versus PhD school psychology programs. The study aimed to investigate whether there was: (a) a significant relationship between doctoral interest and higher household incomes, higher parental education, and financial support from family to pay for undergraduate or graduate education, (b) a significant relationship between doctoral interest among racially diverse students and higher household incomes and higher parental education, and (c) a significant relationship between interest in PsyD programs and higher household incomes. Results did not support the three proposed hypotheses. However, exploratory analyses supported differential effects of demographic and qualitative factors on interest in types of school psychology programs among White and minority students. Given the novelty of this study in investigating differences between specialist and doctoral interest, additional research is needed to support this study's findings. Implications for recruitment of diverse individuals and future research are discussed.

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TABLE OF CONTENTS

LIST OF TABLES

Introduction

Statement of the Problem

The National Association of School Psychology (NASP, 2010), recommends that there be 1 school psychologist assigned to every 1000 students enrolled in our nation's public schools, who are responsible for the provision of assessment, consultation, prevention, and intervention services. Unfortunately, the demographic characteristics of current school psychologists do not reflect those of the students enrolled in our nation's public schools, as racial and ethnic minorities are a starkly underrepresented group within the profession. Currently, racial minorities account for approximately 38% of the U.S. population and are expected to constitute greater than half the U.S. population by 2044 (Colby & Ortman, 2014). NASP's latest census of its members demonstrates that only approximately 11.7% of working school psychologists belong to racially and ethnically diverse groups (Walcott & Hyson, 2018). The low percentage of school psychologists of color in the nation is especially troubling in light of the high number of minority students that are currently enrolled in the nation's public schools (McFarland et al., 2018), requiring a greater degree of cultural competence among practitioners.

A related, and equally pressing issue, is the low representation of racially and ethnically diverse individuals in school psychology graduate programs. According to NASP, approximately one quarter of students in both doctoral-level and specialist-level programs belong to racially and ethnically diverse groups (Gadke, Valley-Gray, & Rossen, 2017). Alarmingly, only 12.2% of licensed doctoral-level psychologists in the U.S. are racial and ethnic minorities (APA, 2016). Although the U.S. Bureau of Labor Statistics (2018) identifies expected employment growth and a wealth of job

1

opportunities in the field of school psychology, there may be little to no exposure about the profession of school psychology to high school and college students. An analysis of psychology textbooks revealed that they provide the least amount of coverage about school psychology compared to all other psychology subspecialties (Haselhuhn & Clopton, 2008) and may be preventing more diverse students from entering the profession. Consequently, psychology undergraduates report limited knowledge of school psychology in relation to clinical and counseling psychology (Bocanegra, Gubi, Fan, & Hansmann, 2015). Although research has established the presence of minority students and faculty as an effective strategy for recruitment of diverse graduate students (Rogers & Molina, 2006), undergraduate professors at Historically Black Colleges and Universities (HBCUs) report that school psychology programs fail to proactively recruit students at these universities (Graves & Wright, 2009). Moreover, school psychology doctoral programs are significantly less likely to express dedication to diversity education on their websites compared to clinical psychology programs (Bidell, Ragen, Broach, & Carrillo, 2007). Increasing the number of minority doctoral students can pave the way for an increase in the diversity among school psychologists working in the nation's schools, increase in the number of faculty of color in academia and, ideally, the expansion of diversity-related research publications (Brown, Shriberg, & Wang, 2007; Maton, Kohout, Wicherski, Leary, & Vinokurov, 2006). Research has demonstrated that positive interactions between diverse groups are associated with reductions in prejudiced attitudes (Christ et al., 2014). While an increase in racially diverse school psychologists does not necessarily equate to sufficient training and knowledge of culturally competent services (Graves, Proctor, & Aston, 2014), a diverse graduate student pool can potentially

2

facilitate positive social interactions between different cultural groups. Consequently, Grapin and colleagues (2016) argue that a diverse graduate cohort could promote supportive and tolerant attitudes towards racially diverse individuals, which can prepare graduate students to interact in a more culturally competent manner in schools with a racially diverse student body.

The present study will examine the demographic differences that exist in the school psychology education pipeline, with a particular focus on the racial and socioeconomic characteristics of individuals who choose to enter doctoral versus specialist training programs. This study will also investigate the demographic differences among students interested in PhD versus PsyD school psychology programs.

Literature Review

Benefits of Diversity in School Psychology

Diversification of the school psychology workforce is essential to meet the growing population of ethnic and racial minorities in public schools (Blake, Graves, Newell, & Jimerson, 2016). In 2014, the National Center for Education Statistics (NCES) found that the percentage of racially and ethnically diverse students in U.S. public schools exceeded the percentage of White students (McFarland et al., 2017). The demographic shifts in the cultural composition of the public student body emphasize the need for greater cultural competence and diversity among school psychologists. Research indicates potential benefits in mental health treatment outcomes when clinicians match patients in race and ethnicity (Cabral & Smith, 2011; Gamst et al., 2003; Russel, Fujino, Sue, Cheung, & Snowden, 1996). A meta-analytic study of racial and ethnic matching among mental health clinicians and patients reveals that patients prefer therapists of the same race or ethnicity and hold more optimistic views of racially and ethnically matched therapists (Cabral & Smith, 2011). Such findings stress the importance of racially and ethnically diverse school psychologists to foster a healthy therapeutic alliance between students and school psychologists and to contribute to positive outcomes.

School psychologists in urban public schools serve ethnically and racially diverse populations that necessitate the need for ethnically and racially diverse school psychology practitioners to implement culturally competent and evidence-based services to minority students across the U.S. (Blake et al., 2016). Qualitative research of school psychologists in racially and ethnically diverse urban schools revealed the specific challenges that professionals face in the urban environment (Graves et al., 2014).

Approximately 90% of school psychologists in urban schools reported that at least half of the students requiring school psychology services were of minority status, compared to the national average (36%) of school psychologists serving high-density minority populations posed by NASP's demographic data of its workforce in the 2009-2010 academic year (Curtis, Castillo, & Gelley, 2012; Graves et al., 2014). The comparably higher percentage of psychologists of color in Graves et al.'s (2014) study suggests that diverse school psychologists potentially seek employment in multicultural school settings. School psychologists in urban schools lament their inadequate training in providing multicultural services and a greater need for graduate programs to implement greater focus on teaching evidence-based practices to serve a racially, ethnically, and linguistically diverse urban student body. Although NASP (2010) recommends that there be a ratio of one psychologist per 1000 students, close to half of the urban school psychologists in the study served more than 2000 students (Graves et al., 2014), further emphasizing the need for more demographically diverse and culturally competent school psychologists to serve minority student populations. The likelihood for specific racial and ethnic minorities ages 6 through 21 (i.e., African American or Black, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander) that require services under the Individuals with Disabilities Education Act (IDEA) is greater than the need for services among Asian or White students (U.S. Department of Education, 2016), further indicating the demand for diverse school psychologists to provide special education services for at-risk minority students. According to Truscott and colleagues (2014), African American school psychologists working with racially and ethnically diverse student populations view their capacity to assist and advocate for minority students as

integral opportunities to their careers, which underscores the positive role of advocacy that minority school psychologists undertake to support students of color.

Increases in the percentage of doctoral students of color in school psychology programs can potentially lead to more diverse faculty. An examination of faculty among APA-accredited clinical psychology programs reveals that 76.2% of PsyD program faculty hold a PhD and 21% hold a PsyD degree (Merced, Stutman, & Mann, 2015). The overwhelming majority of psychology faculty members possess a doctoral degree, further emphasizing the need for doctoral education among students of color as a requisite to later earn faculty positions. A diverse faculty and recruitment of students of color has a snowball effect in successfully recruiting additional students of color (Rogers & Molina, 2006). Similarly, Maton and colleagues (2006) contend that a greater number of diverse doctoral recipients in psychology will logically lead to a more qualified group of doctoral faculty candidates of color and to more diversity-related research. Although there is an increasing trend in the number of diversity-themed articles featured in the school psychology journals, the percentage of articles in the literature remains relatively low (16.9%). Between 2000 and 2003, 6.9% of articles in the school psychology literature reviewed by Brown and colleagues (2007) concentrated on the African American population, 4.3% on the Hispanic population, 0.3% on the Native American population, and 0.3% on the Asian American or Pacific Islander population. These disappointing numbers demand a more diverse doctoral graduate and faculty population in school psychology to conduct research relevant to diversity issues.

Demographics in School Psychology

      School psychology workforce. NASP's most recent survey of its members from the 2014-2015 school year revealed that 87.2% of school psychologists in the workforce are White, 5.1% are Black or African American, 6% are Hispanic, Latino, or Spanish Origin, 2.9% are Asian, 0.2% are American Indian or Alaska Native, and 0.2% are Hawaiian or Pacific Islander (Walcott & Hyson, 2018). The average age of the sample was 42.4 years, and 83.7% were female. Compared to previous years, demographic trends demonstrate a continued increase in the number of female school psychologists. Additionally, the mean age of school psychologists has decreased from previous years and has been its lowest since NASP's surveys of its membership began in 1989-1990.

      Further, Walcott and Hyson (2018) add that 8% of its members endorsed delivering multilingual services, and 14% of school psychologists surveyed reported being fluent in a language other than English, with Spanish being the most commonly spoken language (7%). Considering that NASP membership data from 1990 reported that 94% of its members were White, Walcott and Hyson (2018) state that NASP's most recent data demonstrate an increase in racial and ethnic diversity among its members. Despite these changes, when compared to the diversity of the population at large, NASP membership continues to experience minimal growth in the number of racial and ethnic minorities that join. Notably, Graves, Proctor, and Aston (2014) reported that although NASP is the largest professional organization of school psychologists in this country, its membership may not be representative of the true diversity of the profession nationwide, as many school psychologists of color are not NASP members. Regardless, although the NASP membership data do not mirror the diversity of the profession nation-wide, the

differences between the numbers reported herein and those of the American population are very large.

The racial demographics of school psychologists in the U.S. are similar to the demographics of other school personnel. NCES data on the racial characteristics of U.S. public school teachers from 2015-2016 reveals that 80.1% of public school teachers are White, 6.7% are Black, 8.8% are Hispanic, 2.3% are Asian, 0.2% are Pacific Islander, 0.4% are American Indian or Alaska Native, and 1.4% are multiracial (Synder, de Brey, & Dillow, 2019). The numbers for U.S. public school principals are similarly homogenous. Recent data demonstrates that 77.8% of public school principals in the U.S. are White, 10.6% are Black, 8.2% are Hispanic, 1.4% are Asian, 0.2% are Pacific Islander, 0.7% are American Indian or Alaska Native, and 1.1% are two or more races (Synder, de Brey, & Dillow, 2019). In 2017, 92% of American Speech-Language-Hearing Association (ASHA) members, who consist of speech-language pathologists, audiologists, and undergraduate and graduate members, and affiliates, identified as White (ASHA, 2018). The racially similar profile of school psychologists to other school personnel highlight a systemic issue that needs reform to meet the needs of a diverse student population.

School psychology graduate students. Dismaying trends are also found in the number of graduate-level students who are matriculated in school psychology training programs. NASP collects demographic information about the graduate students in both specialist and doctoral programs every year through its online database, the National School Psychology Program Database Project Survey. During the 2015-2016 academic year, there were a total of 321 school psychology graduate programs across the United

States that consisted of 220 specialist-level and 101 doctoral-level programs. Data revealed that 25.3% of students enrolled in specialist-level programs and 25.4% of doctoral-level students identified as racially diverse. Males accounted for 13.7% of enrolled specialist-level students and 17.4% of doctoral-level students (Gadke, Valley-Gray, & Rossen, 2017). The data demonstrate that school psychology graduate students are demographically similar to the school psychologists in the workforce, as the majority of practitioners and students are White females. However, the percentage of minority graduate students in school psychology (approximately 25%) exceeds the number of minority practitioners in the field, as 87.2% of working school psychologists identify as White (Walcott & Hyson, 2018). A limitation of this data is its lack of information regarding the number of individuals from specific minority groups in both specialist-level and doctoral-level programs.

Earlier research of the psychology graduate pipeline among minority students found comparable trends (Maton, Kohout, Wicherski, Leary, & Vinokurov, 2006). Despite a nearly 25% increase in the number of minority students earning the bachelor's degree in psychology from 1989 to 2002, there was a notable lull in the percentage of growth for African American and Hispanic/Latino students enrolled in PhD programs. This pattern evidences the racial and ethnic underrepresentation in psychology farther up the graduate pipeline, particularly among African American and Hispanic/Latino students. Enrollment within PsyD programs, that typically have more of an applied psychology training focus included only 6.5% of African American, and 6.1% Hispanic/Latino students in 2003. The enrollment of minority students in PhD programs was slightly less, with African American and Hispanic/Latino students comprising 6.0%

and 5.1% of students entering PhD programs in 2003, respectively. African American and Hispanic/Latino students entering PsyD and PhD programs met half or less of their racial/ethnic group representation in relation to the U.S. population. On the contrary, Asian American student representation entering PhD programs was greater than double in relation to the U.S. population (Maton et al., 2006). African American/Black and Latinos are at-risk minority groups for pursuit of school psychology graduate education. The striking differences in racial and ethnic group representation in doctoral psychology programs underscores the need to examine the factors that influence each minority groups' decisions to matriculate into doctoral programs.

Attrition data from psychology master's and doctoral programs from 2011 to 2015 revealed slightly lower, yet comparable, rates of attrition from school psychology doctoral programs (i.e., 5.01%, 4.44%, 4.76%, 5.53%, 3.86%) compared to master's programs (i.e., 6.14%, 6.85%, 5.89%, 5.89%, 8.40%). Doctoral attrition was lowest for school, counseling, and clinical psychology programs compared to other subfields (Michaeski, Cope, & Fowler, 2016). Although approximately one quarter of students matriculated into school psychology graduate programs are racially diverse (Gadke, Valley-Gray, & Rossen, 2017), there is no comprehensive record of attrition rates by race and ethnicity from school psychology programs that would inform whether that 25% successfully graduates. African American and Asian doctoral students in special education reported feeling the most dissatisfied with their research experiences in graduate school and indicated feeling the least equipped to publish articles in peer-reviewed journals, lead school programs, and provide specialized services compared to White and Latino students. In comparison to other groups, Asian students perceived

themselves as most dissatisfied with their research experience and least prepared in all aspects during their doctoral pursuit in special education (Wasburn-Moses, 2007). Proctor and Truscott (2012) conducted a qualitative study to investigate the reasons for attrition from school psychology specialist and doctoral programs among African American students. One reason for attrition included perceptions that the school psychology programs were a poor fit that failed to meet their academic and learning expectations, including views that school psychology mainly involves testing and provides few opportunities for other responsibilities. Participants reported a need for advisement from faculty, and identified the absence of meaningful relationships with faculty and peers as a major reason for attrition. Participants stated that race influenced their limited relationships with faculty and peers, such as feelings of discomfort of being racially and economically different from peers and inadequate support from faculty (Proctor & Truscott, 2012). These findings corroborated results from earlier research that demonstrated the impact of race and gender on doctoral study contentment and commitment (Ellis, 2001). Doctoral students with good program advisors perceived themselves as making adequate progress in their graduate career. However, Black female doctoral students reported more contentious relationships with their advisors compared to White students and Black male students (Ellis, 2001). A third reason for attrition among African American school psychology students that emerged in Proctor & Truscott's (2012) study included the joint decision to leave the program with another peer, due to funding concerns or interest in another psychology subfield.

Barriers to Graduate Study in School Psychology

  Exposure to the profession. Research demonstrates that undergraduate psychology students have significantly less knowledge and exposure to school psychology compared to clinical psychology and counseling psychology (Graves & Wright, 2009; Bocanegra, Gubi, Fan, & Hansmann, 2015). Haselhuln and Clopton (2008) investigated the extent and accuracy of coverage of applied psychology fields (i.e., clinical, counseling, school, and industrial/organizational) in introductory psychology textbooks published in the early 2000s. Textbooks were found to cover the least amount of information about school psychology compared to other psychology disciplines. Bocanegra and colleagues (2015) investigated undergraduate psychology juniors and seniors' knowledge and exposure to school psychology from universities across the U.S. Students were administered an exposure scale that assessed the level of information received from textbooks, professors, contact with practitioners, and psychological organizations in regard to school, clinical, and counseling psychology. Participants also completed a knowledge scale that gauged students' level of information regarding the characteristics of professional fields of psychology (i.e., school psychology work settings). Students' choice intentions to apply to school psychology programs were assessed as well. In addition to findings that indicate significantly less undergraduate exposure and knowledge of school psychology compared to the other two professional psychology subfields, results revealed that undergraduates with greater exposure and knowledge of school psychology were significantly more likely to have greater intentions of applying to school psychology programs. No difference between minority and non-

minority undergraduate levels of exposure and knowledge were noted (Bocanegra et al., 2015).

Graves and Wright (2009) implemented a study aimed at investigating faculty's and undergraduate students' views, knowledge, and interest in school psychology at Historically Black Colleges and Universities (HBCU). Both faculty and HBCU students across all undergraduate levels reported less knowledge of school psychology in comparison to other professional psychology disciplines. Overall, 93% of students surveyed expressed a desire to pursue graduate study, with greater interest in attaining graduate degrees in counseling and clinical psychology, respectively. Students attained most information about professional psychology subfields from professors and advisors. Information about clinical and counseling psychology were disseminated through a multitude of outlets, including textbooks, undergraduate classes, and posters. Disappointingly, knowledge about school psychology was not easily distributed via these same outlets. Moreover, faculty at HBCUs also held less information about school psychology in comparison to clinical and counseling psychology. Sixty-four percent of HBCU faculty members denied active recruitment from school psychology programs at their universities (Graves & Wright, 2009). Despite the national shortage of school psychologists (Castillo, Curtis, & Tan, 2014), faculty at HBCU's erroneously believed school psychology provided fewer career opportunities for African American students relative to other psychology subspecialties. Additionally, 78% reported that school psychology organizations, such as NASP and Division 16 of APA, failed to deliver school psychology-related information to HBCU universities (Graves & Wright, 2009).

Limited school psychology faculty. The longstanding shortage of school psychology faculty members is a problem that may be contributing to the limited awareness of the profession among undergraduate psychology students. NASP data reveals that only 7.1% of its workforce is primarily employed in a university setting, with 83% working in school settings (Walcott et al., 2018). A three-year examination of the primary school psychology faculty shortage demonstrated that doctoral programs employ a greater number of primary faculty relative to master's and specialist programs. Most program directors (79%) reported open faculty positions, with a rising number of unfilled positions with each increasing year from 2004-2007 (Clopton & Haselhuhn, 2009). Approximately 50% of faculty resignations resulted from receipt of new faculty opportunities, with 36% of resignations not resulting in new faculty positions. Persistent faculty shortages can impede the number of future school psychology graduates and, subsequently, the number of practitioners (Clopton & Haselhuhn, 2009). Lack of school psychology faculty may play a role in the limited exposure undergraduates receive of the field, as evidenced by the restricted knowledge of school psychology reported by HBCU faculty and students (Graves & Wright, 2009).

Socioeconomic factors. The American Psychological Association (APA, 2012) identified three contributing factors to the educational disparities among ethnic and racial groups: socioeconomic status, biased treatment of ethnically and racially diverse students, and contrasting responses of these individuals to the same educational setbacks. Students from low-income households are at an educational disadvantage due to limited access to quality education and related social opportunities, and fewer opportunities to invest in education. The achievement gap between children from families at the top 10% of family

household income in the U.S. compared to the bottom 10% is larger than the achievement gap between black and white students (Reardon, 2011).

The educational gap between children from low and high socioeconomic have long-term consequences on academic achievement. Caro, McDonald, and Willms (2009) examined the trajectory of the educational disparities between low and high socioeconomic students in Canada ranging from the ages of 7 through 15. Academic achievement was assessed through standardized testing, using a portion of the *Canadian Achievement Test*, Second Edition (CAT/2). The results evidenced an increasing mathematics achievement gap between children from low and high socioeconomic families that widened with school advancement and age. The achievement gap remained stable from ages 7 through 11 and widened at a rising rate until the age of 15. Additionally, NAEP scores among students in 4th, 8th, and 12th grades demonstrate a steady decline in reading and math performance as poverty level in schools increases (McFarland et al., 2018). These findings emphasize the deleterious role of low socioeconomic status on educational attainment.

Educational disparities are particularly prominent for Hispanic/Latino, African American, and American Indian/Alaska Native students in the U.S (McFarland et al., 2018; Quintana & Mahgoub, 2016). Recent NCES data revealed that Black, American Indian/Alaska Native, and Hispanic students consistently received the lowest scores on national reading, math, and science assessments, as measured by the National Assessment of Educational Progress (NAEP) in 4th, 8th, and 12th grade. Asian/Pacific Islander students and White students achieved the highest scores on these assessments (McFarland et al., 2018). The interaction between ethnic and racial disparities and low socioeconomic status

predisposes students of color to a critical disadvantage that can perturb their academic skill development and prospect for continued education (APA, 2012).

Longitudinal research from a nationally representative sample of the U.S. population revealed that level of parents' education influences graduate school matriculation. Only 24% of students with parents who completed high school or less pursued graduate study after obtaining their bachelor's degrees, relative to 62% of students with parents who obtained post-bachelor education (Mullen, Goyette, & Soares, 2003). Parental education has a greater influence on student enrollment into higher-level graduate programs (e.g., doctoral and professional programs) compared to master's programs. Approximately 18% of students with parents with high school education or less matriculated into master's programs, compared to 22% of participants with parents who earned graduate degrees. The gap is much bleaker for students pursuing doctoral study, with only 1.4% of students with parents with high school or less compared to 5.5% of students whose parents have graduate education. Parental education has the greatest effect on doctoral study pursuit. Students with highly educated parents are significantly more likely to enroll in doctoral programs compared to those with less educated parents (Mullen et al., 2003).

Debt. The prospect of graduate education in psychology potentially equates to additional loans and debt for students. Research evidences significant racial and economic disparities in education debt, with students of color and students from low- and mid-income households borrowing more loans to pay for college (Grinstein-Weiss, Perantie, Taylor, Guo, & Raghavan, 2016). Low-income Black students are most vulnerable to education debt compared to other racial and ethnic groups. Additionally,

16

Black respondents in Grinstein-Weiss and colleagues' (2016) study were twice as likely as White participants to have education debt. Such disfavoring trends have lasting consequences on students from disadvantaged racial and economic backgrounds. Greater college debt is a deterrent from doctoral education aspirations and attendance among students attending public undergraduate institutions (Zhang, 2013). Approximately 43.1% of students in psychology graduate programs owe debt from undergraduate education (Doran, Kraha, Marks, Ameen, & El-Ghoroury, 2016). White undergraduate psychology students are more likely to rely on parents and work off-campus to pay for their college education compared to minority students. On the contrary, students of color are more dependent on loans than White students (Lott & Rogers, 2011). These findings suggest that White families are more financially able to provide payment for undergraduate education relative to minority families. Education debt increases with education level (Grinstein et al., 2016). Minority students depend on loans for education payment, as they are unable to rely on family for financial resources.

Funding obtainability for clinical (PsyD) or research-focused (PhD) programs is markedly different. Only up to 10% of students in PsyD programs receive a full assistantship and complete tuition reimbursement compared to 89% of students in research-heavy PhD programs. Approximately 54% of students in PhD programs offering equal focus on research and clinical training are fully funded (Norcross, Ellis, & Sayette, 2010). Consequently, PsyD students report the highest median level of anticipated debt at $160,000, in relation to clinical PhD students seeking jobs in a health service profession at $76,500, and research-focused PhD students at $72,500 (Doran et al., 2016).

Earning a doctoral-level degree in psychology takes many years and often leads to educational debt after graduation. Graduate students and early career psychologists (ECPs), who graduated in the past 10 years, primarily rely on federal loans, followed by aid from university assistantships to pay for graduate education (Doran et al., 2016). An analysis of ECPs and master's and doctoral-level graduate students currently enrolled in clinical and counseling programs reveals that most students (73.7%) borrow federal loans to pay for graduate education, followed by financial support from graduate assistantships or university positions (66.3%). Consistent with Norcross and colleagues' (2010) earlier research, PhD students are more likely to receive university or grant funding compared to PsyD students, indicating that PsyD students need to rely on other sources of funding, such as federal loans. A greater percentage of PhD students receive funding from university jobs or assistantships (40%), university fellowships and grants (12.5%), and outside fellowships and grants (3.4%) relative to PsyD students (2%, 2%, and 0.8%, respectively). Although PsyD students receive less university and grant funding and have greater anticipated debt compared to PhD students, the median starting salaries for both degrees are comparable, with recent PsyD recipients making a median of $60,000 and PhD recipients earning a median of $63,000 (Doran et al., 2016).

Biased treatment. Psychology students of color face a multitude of barriers during their undergraduate experience that can potentially discourage impetus for graduate study pursuit. To understand the racial underrepresentation of students of color in psychology graduate programs, Lott and Rogers (2011) investigated the experiences and beliefs of White and racial minority undergraduate psychology majors across the U.S. Results of the web-based survey and semi-structured phone interviews revealed that

White students and students of color held similar reasons for choosing psychology as a major, including both practice and research opportunities, potential for financial gain, personal experience, and being encouraged to enter the field by someone. Although both groups held similar perceptions of challenges to their educational pursuit presented by friends, relatives, and professors, minority students were significantly more likely to attribute their negative challenges, encouragement perceived from professors, and employment aspirations as associated with their ethnicity. Students of color perceived a greater lack of respect from their professors compared to White students. White undergraduate students were more likely than minority students to feel supported by professors and to work closely with psychology departments. Minority students also reported that their racial/ethnic group representation in psychology textbooks and lectures were stereotypical, inaccurate, or nonexistent (Lott & Rogers, 2011).

Factors Influencing School Psychology and Doctoral Aspirations

To develop a more diverse doctoral-level school psychology population, research necessitates an understanding of the factors that attract minority students of color to school psychology and doctoral education (McCallum, 2016). Due to the shortage of racially and ethnically diverse school psychologists in the workforce, researchers have been tasked with investigating the factors that influence decisions to join the field of school psychology. Students at HBCUs reported aspirations to help diverse individuals as the leading reason for pursuit of graduate education, followed by hopes to influence development of public policy, and likelihood of higher income earnings (Graves & Wright, 2009). Graves and Wright (2007) conducted a national study to examine the motivational factors that influenced students to pursue both master's and doctoral

education in school psychology. Participants consisted of NASP members who were currently graduate students in school psychology programs. Doctoral and nondoctoral students endorsed similar reasons for entering the field, albeit for two significant differences. In comparison to doctoral students, nondoctoral students were significantly more likely to cite job stability and the work schedule in public schools as reasons for entering the field. Qualitative analysis revealed five integral reasons for selecting school psychology as a career: primarily working with children, advocating for socially disadvantaged ethnic groups, such as African Americans and Hispanics due to underrepresentation of these groups in the field, individual experiences and encounters with the field, limited knowledge of school psychology, and working within the public school system. Personal experiences were the most highly endorsed reason for entering the field, highlighting the importance of exposure to school psychology prior to undergraduate education in influencing knowledge and interest in school psychology (Bocanegra, Newell, & Gubi, 2016). An overwhelming majority of participants (92.2%) declared that working closely with children was integral to joining the field (Graves & Wright, 2007). While Graves and Wright's (2007) discovered the central qualities of school psychology that attract students to pursue graduate education, further research is warranted to understand the reasons some students pursue a doctoral degree in the field versus a specialist degree.

Personal contact with school psychologists, knowledge about work in the field, and self-efficacy related to successful admittance and degree attainment are positive factors in increasing undergraduate intentions of applying to school psychology programs among students of color. Bocanegra and colleagues (2016) examined the specific types of

exposure and knowledge among undergraduate students of color that are highly

associated with intentions of applying to school psychology graduate programs. Minority

students cited greatest knowledge about the setting where school psychologists work, the

populations served, and the relevance of the field, and reported the least knowledge

pertaining to training requisites. Participants disclosed that they received most

information about school psychology from professors and advisors, and related courses,

and the least information from recruitment resources. Greater knowledge about the duties

school psychologists perform, the importance of their work, and training requisites is

associated with higher intentions of attending graduate school for school psychology,

which underscores the integral role of disseminating fundamental knowledge about the

field to racial and ethnic undergraduate students. Direct contact with school

psychologists, exposure to professors of psychology and advisors, and receipt of

information about the field from the media were also integral in increasing interest in

applying to school psychology programs among undergraduate students of color

(Bocanegra et al., 2016). These findings highlight the vital role of interpersonal

relationships for increasing student intentions to apply to school psychology programs.

Greater intentions for graduate pursuit were also linked to beliefs that a degree would

provide students with opportunities to earn a promising income and to perform

stimulating tasks, suggesting that a positive view of the field is crucial to minority

intentions to matriculate. Self-efficacious beliefs about successful admittance into a

school psychology graduate program and beliefs of graduating from the program were

strongly linked to increased intentions to matriculate (Bocanegra et al., 2016). Research

findings cement the need for interpersonal contact, mentorship with professors and

advisors in college, and beliefs of self-efficacy in promoting interest to apply to school psychology programs among students of color.

In response to the disproportionately low percentage of African American students pursuing doctoral education, McCallum (2016) qualitatively explored the cultural role of family in influencing student's decisions to apply to graduate school with 41 matriculated doctoral-level students. The majority of participants in the study were pursuing doctoral degrees in psychology (43%). African American doctoral students cited their choice to enter graduate school as a collaborative decision with their parents and relatives. Relatives offered emotional support and resources that shaped their doctoral qualifications. Parents of successfully matriculated doctoral students emphasized high educational expectations, made college attendance mandatory, valued educational attainment, and stressed the role of educational success in social and financial mobility (McCallum, 2016). Previous sociological research indicates a greater likelihood for graduate pursuit among students with parents holding advanced degrees, highlighting the interaction effects of race and socioeconomic status on graduate education attainment (Mullen et al., 2003). Similarly, McCallum's (2016) qualitative study also suggests that higher parental education, in which at least one parent held a graduate degree, is associated with explicit expectations of graduate school attendance among African American students. Notably, participants whose parents earned graduate degrees typically attended predominantly White schools in affluent neighborhoods. While supportive of graduate aspirations, parents from poor or working class families, who had not earned graduate degrees, did not mandatorily expect graduate degree attainment. Alternatively, participants with at least one parent who attended graduate school reported explicit

parental expectations for graduate study. Many participants identified their family and ancestors' historical racial plight and lost opportunities to earn an education as motivation for pursuing a graduate degree. Parental encouragement and emotional support were identified as invaluable resources during the decision-making process of applying to graduate school, which often boosted morale when participants wavered in confidence of their abilities. Participants often sought concrete assistance from extended family and fictive kin for inspiration and to review application materials and select suitable doctoral programs, as parents were often unfamiliar with the application process (McCallum, 2016). Successful matriculation intro doctoral programs among African American students is a collaborative effort between student, parents, and extended and fictive kin, that is inspired by high parental academic expectations, prospects of social mobility, and overcoming historical experiences of discrimination. School psychology graduate programs and organizations need to further expand the resources available regarding the application process and relevant school psychology experience needed to attract students of color, as McCallum's (2016) qualitative study reveals the crucial role of family encouragement and social and emotional support in influencing African American students' decisions to enroll in doctoral programs. Additional research is merited to explore the unique factors that influence students to pursue doctoral degrees versus specialist degrees in school psychology.

Research Questions

The present study will explore the racial demographics of undergraduate students intending to pursue doctoral and specialist degrees in school psychology. The study attempts to address the subsequent research questions pertaining to the school psychology graduate pipeline:

1. Which demographic characteristics are strongly related to doctoral study pursuit in school psychology?

2. What demographic differences exist specifically among racially diverse students who wish to pursue doctoral versus specialist degrees in school psychology?

3. What demographic differences exist between students who wish to earn PsyD versus PhD degrees in school psychology?

Based on the examination of the extant literature, the following hypotheses have been formulated:

1. Doctoral study pursuit among students is associated with high levels of education of at least one parent (e.g., graduate degree) and higher household incomes. Financial support from family to pay for undergraduate education is associated with higher interest in doctoral programs in school psychology compared to specialist programs. Furthermore, students who expect to rely on financial support from family to pay for graduate school are more likely to be interested in doctoral programs in school psychology.

2. Racial minorities who pursue doctoral degrees in school psychology have at least one parent with higher levels of education (e.g., graduate degree).

Additionally, racially diverse students who plan to attend a doctoral school psychology program also have higher household incomes compared to those who intend to earn specialist degrees.

3. Students who pursue PsyDs in school psychology have higher household incomes compared to students pursuing PhDs.

Methods

Participants

Participants consisted of undergraduate psychology students from colleges and universities across the U.S. Individuals needed to be at least 18 years of age to participate in the survey. Out of 585 individuals who attempted the survey, 41 participants (7.0%) completed only the demographic section of the survey, 127 participants (21.8%) completed the demographic items and the first few items regarding the reasons for applying to school psychology programs, and 344 (59.0%) participants completed the survey entirely. Those who responded only to the consent item were excluded from the analyses (73 participants), as these cases contained no available information for analysis. Thus, the analyses of the current study include the 512 participants who provided responses to the demographic questions at a minimum, as this section also yields participant responses to the types of school psychology programs of which participants are interested. The demographic characteristics of participants are displayed in Table 1. Of these participants, 83.8% of participants identified as female, 13.7% identified as male, 1.6% identified as transgender, 0.8% identified as Other, and 0.2% preferred not to respond. The age of the sample ranged from 18 to 58, with a median age of 20 ($SD =$ 4.80). Results demonstrated that the majority of participants were White (68.2%), while 9.4% of participants were Black or African American, 8.4% were multiracial, 7.4% were Hispanic or Latino, 4.1% were Asian, 0.2% were American Indian or Alaska Native, 1.2% identified as Other, and 1.2% preferred not to respond. A racial minority variable, consisting of participants identifying as American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, Hispanic, and

26

multiracial (29.5%), was created to further aid in racial demographic comparisons

between racially diverse students and White students. Participants included 77 (15.0%)

freshman, 92 (18.0%) sophomores, 1›49 (29.1%) juniors, and 192 (37.5%) seniors.

Table 1

Demographic Information

Characteristic	N	Percentage (%)
Gender		
Female	429	83.8
Male	70	13.7
Transgender	8	1.6
Other	4	0.8
Prefer not to respond.	1	0.2
Race		
White	349	68.2
Black or African American	48	9.4
Multiracial	43	8.4
Hispanic or Latino	38	7.4
Asian	21	4.1
American Indian or Alaska Native	1	0.2
Native Hawaiian or Other Pacific Islander	0	0
Other	6	1.2
Prefer not to respond.	6	1.2
College Level		
Freshman	77	15.0
Sophomore	92	18.0
Junior	149	29.1
Senior	192	37.5
Total estimated household income		
Less than $25,000	84	16.4
$25,000 – $34,999	38	7.4
$35,000 – $59,999	67	13.1
$60,000 – $99,999	96	18.8
$100,000 – $149,999	72	14.1
$150,000 or more	56	10.9
I don't know.	97	18.9

Procedure

Undergraduate participants were recruited nationally from colleges and universities identified on the Niche.com website's 2019 list of "Most Diverse Colleges in America," filtered for average selectivity of admission. According to the Niche website, 90% of the criteria that constituted the rankings were obtained from the U.S. Department of Education, which focused predominantly on the racial diversity of students (25%), and also incorporated racial diversity of faculty (10%), economic diversity of students (15%), gender diversity of undergraduate students (5%) and faculty (5%), and the percentage of international (15%) and out-of-state students (15%). Ranking data also integrated self-report student ratings on the climate of the institutions' diversity (10%) ("2019 Most Diverse Colleges Methodology," 2019).

Emails were sent to faculty advisors and chapter presidents of undergraduate psychology associations to 413 of the top 525 most diverse schools. Schools were not contacted if contact information for the faculty advisor, chapter president, or undergraduate psychology chair/director was not available online, or if the institution did not offer psychology as a major. Psychology associations included Psi Chi, Psychology Club, and other clubs related to school psychology and multiculturalism. Program chairs and undergraduate directors were emailed if a Psi Chi/Psychology Club email was not available on the university's website. Psi Chi/Psychology Club chapters were contacted via Facebook messaging if emails were not available on the university website. The survey was also distributed on Society for the Teaching of Psychology listserv. The survey link directed the students to a letter of consent that explained the purpose of the

study, expressed voluntary participation, and noted the right to withdraw at anytime during the survey. Once students read the consent and agreed to partake in the study, they were directed to click a link guiding them to the survey that was created via the web based Qualtrics program.

Measures

   Reasons for entering school psychology graduate programs. An adapted version of the Reasons for Applying to School Psychology Survey (RASP), formulated by Graves and Wright (2007) for use among graduate students, was used prospectively among undergraduate participants in the study. The questionnaire consisted of 29 items. The first section requested participants' demographic information. This section also consisted of an item that assessed the types of school psychology graduate programs of which participants wished to apply (e.g., M.A./M.S., M.Ed., Ed.S., PsyD, PhD, Ed.D). The second section of the adapted RASP assessed qualitative factors that attracted undergraduate students to school psychology as a career. This section obtained information regarding factors that influenced students' intentions to apply to school psychology graduate programs and acquired information about other psychology programs of which they are interested.

Data Analyses

   Descriptive and comparative analyses were conducted on SPSS Version 26.0 to obtain information on participant demographics and to examine the significance of relationships, respectively. The chi-square test for independence was conducted to test the hypotheses outlined by the author, and to explore additional relationships within the data set. The alpha level was set at 0.05 (two-tailed). The Holm's sequential Bonferroni

method was conducted for post-hoc analyses for omnibus chi-square tests for independence (Green & Salkind, 2013). The likelihood ratio chi-square statistic and adjusted significance value were reported in cases where more than 20% of the cell counts had expected values less than 5 (McHugh, 2013).

In response to the different rates of survey completion, the chi-square test for independence was also used to examine racial demographic patterns associated with survey completion. These analyses were used to determine whether any differences existed between racially diverse groups and different rates of survey completion. The data set consisted of three rates of completion: 48%, 61%, and 100%. Individuals with a recorded completion rate of 48% completed only the demographic section of the questionnaire, which also consisted of the item requesting interest in type of school psychology program (i.e., specialist, doctoral). A completion rate of 61% encompassed responses to the demographic section of the questionnaire, and the first few items on reasons for applying to school psychology programs. A completion rate of 100% consisted of responses that attempted the entire survey. Results revealed a significant association between progress rate of survey completion and participant race, χ^2 (2, $N =$ 500) = 6.76, $p = .03$, Cramér's V = .12. Compared to racial minority students, White students were significantly more likely to complete 61% of the survey rather than 48%, χ^2 (1, $N = 162$) = 6.40, $p = .01$, Cramér's V = .20. There was also a statistically significant difference in progress rate of completion with doctoral interest in school psychology programs, χ^2 (2, $N = 473$) = 6.90, $p = .03$, Cramér's V = .12. Additional post-hoc analyses using the Holm's sequential Bonferroni method did not reveal any statistical significance between different rates of progress on doctoral level interest. The

relationship between progress rate and interest in doctoral programs was found to be statistically significant among White participants only, χ^2 (2, $N = 321$) $= 6.94$, $p = .03$, Cramér's V $= .15$. White students who endorsed interest in doctoral school psychology programs were significantly more likely to complete the survey at 61% rate of progress as opposed to a 100% progress rate of completion, χ^2 (1, $N = 303$) $= 6.12$, $p = .01$, Cramér's V $= .14$.

Results

Summary of Data

Of the 512 respondents, 158 students endorsed interest in specialist school psychology programs, 132 students reported interest in school psychology doctoral programs, 183 students indicated interest in both, and 13 students explicitly stated no interest in applying to school psychology programs. The school psychology program variable was further collapsed into two levels, which consisted of doctoral program interest (315 participants) (i.e., individuals who were interested in both doctoral and specialist programs, or doctoral programs only) and specialist program interest only (158 participants) to aid in comparisons of demographics and qualitative reasons for applying to school psychology programs between respondents interested in specialist versus doctoral school psychology programs. The percentage of participant endorsement in interest of types of school psychology programs is illustrated in Table 2.

A summary of qualitative factors related to school psychology interest is displayed in Table 3. Of the students who endorsed interest in graduate school psychology programs, 291 participants ranked the factors that influenced their decision to apply to school psychology graduate programs. The data were ranked according to the frequency of items that were ranked as first priority (i.e., a ranking of 1). The rankings are illustrated in Table 4. The three factors that students endorsed as crucial in their decision to apply to school psychology programs included working with children, job stability, and the status of being a school psychologist.

Table 2

Summary of Interest in Types of School Psychology (SP) Programs

Characteristic	N	Percentage (%)
Interest in SP programs		
No interest in SP programs	13	2.5
Doctoral interest	132	25.8
Specialist interest	158	30.9
Both doctoral and specialist interest	183	35.7
Type of Doctoral Program*		
PsyD programs	71	15.0
PhD programs	150	31.7
Both PsyD and PhD programs	91	19.2

*Percentages for this category are based on the 473 participants who endorsed interest in school psychology programs.

Table 3

Summary of Qualitative Factors Related to Interest in School Psychology (SP) Programs

Characteristic	N	Percentage (%)
When students decided to apply to SP programs		
High school	90	19.0
College	273	57.7
After a work-related experience	6	1.3
Did not wish to attend a SP program	73	15.4
SP program at undergraduate institution		
Yes	293	61.9
No	62	13.1
I don't know.	87	18.4
SP as first choice		
Yes	96	20.3
No	222	46.9
Intentions of applying to other specialties		
Yes	230	48.6

No	97	20.5
Undecided	115	24.3
If applying to other specialties		
Clinical Psychology	78	16.5
Counseling Psychology	86	18.2
Other	67	14.2
Time off after college		
No, applying straight to graduate school	190	40.2
Yes, taking a break before graduate school	81	17.1
Did not wish to attend a SP program	46	9.7
Location of SP program		
Local, only	102	21.6
Out-of-state, only	33	7.0
Both local and out-of-state	167	35.3
Expected primary employment setting		
Private practice	121	25.6
College professor	36	7.6
School system	100	21.1
Other	58	12.3
SP or education faculty role model		
Yes	115	24.3
No	203	42.9
Personal/professional experience with SP		
Met with school psychologist while in school	96	20.3
Met/heard a school psychologist at career event	50	10.6
Had a professor that was a school psychologist	34	7.2
Has a friend/relative who is a school	30	6.3
psychologist	23	4.9
Interviewed/shadowed a school psychologist	19	4.0
Other experience with a school psychologist	141	29.8
No experience with a school psychologist		
Discouraged from applying to graduate school		
Family	64	13.5
Friends	33	7.0
Professors	22	4.7
Teachers	11	2.3
Other	5	1.1
Not discouraged by anyone	226	47.8

Professional/student organizations

Yes	132	27.9
No	184	38.9

Note. Percentages are based on the 473 participants who endorsed interest in school psychology programs.

Table 4

Ranking of Factors Influencing Students' Decisions to Apply to School Psychology Programs

Ranking	Factor that influenced decision	N	Percentage (%)
1	Working with children	92	19.5
2	Job stability	39	8.2
3	Status of being a school psychologist	35	7.4
4	Working in non-traditional settings (i.e., private practice; state government; clinics)	30	6.3
5	Former role model	24	5.1
6	Income potential	20	4.2
7	Prospect of entering academia	19	4.0
8	Possibility of influencing educational policy	16	3.4
9	Prospect of working in a school environment	11	2.3
10	Public school work schedule	4	0.8
11	Recruiting efforts by APA	1	0.2
12	Recruiting efforts by NASP	0	0

Main Analyses

   Demographic influence on school psychology interest. Analyses on the

relationships between demographic characteristics and school psychology interest were

conducted on the 473 participants who endorsed interest in school psychology graduate

programs. Chi-square tests for independence were conducted to investigate the

hypotheses that having at least one parent with a graduate degree and higher household

incomes are related to increased doctoral school psychology interest. Results did not

support these hypotheses. Having at least one parent who earned a graduate degree was

not associated with interest in doctoral school psychology programs, χ^2 (1, $N = 471$) =

0.02, $p = .89$. There was no association between mother's level of education and interest

in either doctoral or specialist school psychology programs, χ^2 (2, $N = 471$) = 0.32, $p =$

.85. Similarly, interest in doctoral school psychology programs did not differ by father's

level of education, χ^2 (2, $N = 469$) = 0.85, $p = .65$. Excluding the 97 participants that

reported being unaware of their total estimated annual household income, income was not

found to be statistically related to interest in doctoral school psychology programs, χ^2 (5,

$N = 385$) =2.12, $p = .83$. The two variables remained independent when the income

variable was collapsed into two levels (below $60,000 per year and $60,000 plus per

year), χ^2 (1, $N = 385$) = 0.53, $p = .47$.

   The chi-square test for independence was also conducted to examine the

hypotheses that familial financial support to pay for undergraduate education and

expected financial support to pay for graduate education would be related to increased

interest in school psychology programs, respectively. These hypotheses were not

supported. Interest in doctoral school psychology programs did not differ by current

means for paying for undergraduate education, χ^2 (2, $N = 471$) = 0.55, $p = .76$. There was also no significant relationship between intended means to pay for graduate school and interest in doctoral school psychology graduate programs, χ^2 (2, $N = 429$) = 1.65, $p = .44$.

Demographic analysis among racially diverse students. A series of chi-square tests for independence were conducted to examine the relationship between demographic characteristics and doctoral interest among racially diverse students who endorsed interest in school psychology graduate programs ($n = 140$). Results failed to support the hypotheses that racial minority students interested in doctoral school psychology programs are more likely to have at least one parent with a graduate degree and a higher household income. Father's education and doctoral interest was not related among racially diverse participants, χ^2 (2, $N = 138$) = 0.49, $p = .78$. A significant association was also not found between mother's education level and interest in school psychology doctoral programs among students of color, χ^2 (2, $N = 140$) = 2.14, $p = .34$. The percentage of participants who endorsed doctoral interest in school psychology programs did not differ by having at least one parent with a graduate degree, χ^2 (1, $N = 140$) = 0.04, $p = .84$. Additionally, higher household income ($60,000 or more) and interest in doctoral school psychology programs were not found to be significantly related, χ^2 (1, $N = 117$) = 0.43, $p = .51$.

Demographic differences between PsyD and PhD. A chi-square test for independence was conducted to investigate whether student interest in school psychology PsyD programs was associated with higher household incomes compared to students interested in school psychology PhD programs. Out of 473 participants who expressed interest in school psychology graduate programs, 15.0% of participants (71 participants)

were interested in PsyD programs only, 31.7% (150 participants) were interested in PhD programs only, and 19.2% (91 participants) were interested in both PsyD and PhD programs. Students who endorsed interest in PsyD programs alone and those interested in both PsyD and PhD doctoral programs were combined ($n = 162$) to aid in comparison to students interested in only PhD school psychology programs. Analyses were conducted on the 315 participants who endorsed doctoral interest in school psychology. Although results did not support the hypothesis that students interested in school psychology PsyD programs have higher household incomes compared to those interested in PhD programs, results indicated a non-significant trend in the predicted direction between higher household income (e.g., $35,000 or higher) and PsyD interest, χ^2 (1, $N = 254$) = 1.88, $p =$ .17.

Exploratory Analyses

      Demographic influence on doctoral interest in school psychology. Additional chi-square tests for independence were conducted to investigate the relationships between other demographic characteristics and doctoral interest in school psychology among participants who endorsed interest in school psychology graduate programs ($n = 473$). The results of these analyses are shown in Table 5. The association between race (i.e., racial minority and White students) on interest in doctoral school psychology programs was statistically non-significant. Doctoral interest in school psychology programs did not differ by gender, marital status, or having financial dependents. There was a significant association between college level and interest in doctoral school psychology programs. However, the association between college level and interest in doctoral school psychology programs was significant among White students only. White students were

more likely to be interested in specialist school psychology programs as underclassmen rather than upperclassmen. GPA was found to be independent of interest in doctoral school psychology programs.

Table 5

Demographic Factors Associated with Interest in School Psychology

Characteristic	*n* (%)	Chi square tests of independence
Race		$\chi^2(1) = 0.09$
White	321 (69.6)	*p* = .77
Racial minority	140 (30.4)	*n* = 461
Gender		$\chi^2(1) = 0.03$
Male	60 (13.0)	*p* = .87
Female	401 (87.0)	*n* = 461
Marital status		$\chi^2(1) = 0.02$
Single, never married	444 (94.1)	*p* = .88
Married or domestic	28 (5.9)	*n* = 472
partnership/Widowed/Divorced/Separated		
Financial dependents		$\chi^2(1) = 1.10$
Children or providing for someone	23 (4.9)	*p* = .30
No dependents	447 (95.1)	*n* = 470
College level		$\chi^2(1) = 9.31$
Lowerclassmen	155 (32.9)	*p* = .002**
Upperclassmen	316 (67.1)	*φ* = .14
		n = 471
College level (White, only)		$\chi^2(1) = 9.87$
Lowerclassmen	100 (31.3)	*p* = .002**
Upperclassmen	220 (68.8)	*φ* = .18
		n = 320
College level (Racial minority, only)		$\chi^2(1) = 1.13$
Lowerclassmen	52 (37.4)	*p* = .29
Upperclassmen	87 (62.6)	*n* = 139
GPA		$\chi^2(1) = 0.39$
3.5 or higher	277 (58.7)	*p* = .53

Less than 3.5	195 (41.3)	$n = 472$

Demographic analysis among racially diverse students. Additional exploratory chi-square analyses were conducted to explore the relationship between other demographic characteristics and doctoral interest in school psychology programs, specifically among racially diverse students who endorsed interest in school psychology programs ($n = 140$) . The results are displayed in Table 6. The percentage of racial minority participants who were interested in doctoral school psychology programs did not differ by gender, marital status, or having financial dependents. Current means of paying for undergraduate education and expected means to pay for graduate school among students of color were not found to be significantly related with interest in doctoral school psychology programs. College level (i.e., lowerclassmen and upperclassmen) and GPA were found to be independent of interest in doctoral school psychology programs among racially diverse undergraduate students.

Table 6

Demographics Associated with Interest in School Psychology: Racially Diverse Students

Characteristic	n (%)	Chi square tests of independence
Gender		$\chi^2 (1) = 0.68$
Male	19 (14.0)	$p = .41$
Female	117 (86.0)	$n = 136$
Marital status		$\chi^2 (1) = 0.88$
Single, never married	130 (92.9)	$p = .35$
Married or domestic partnership/Widowed/Divorced/Separated	10 (7.1)	$n = 140$

Financial dependents		$\chi^2(1) = 0.22$
Children or providing for someone	13 (9.4)	$p = .64$
No dependents	125 (90.6)	$n = 138$
Means to pay for undergrad education		$\chi^2(2) = 3.17$
No financial support from family	63 (45.3)	$p = .21$
Financial support from family, only	13 (9.4)	$n = 139$
Financial support from family, plus	63 (45.3)	
Expected means for graduate education		$\chi^2(1) = 0.11$
No financial support from family	80 (63.0)	$p = .75$
Some or all financial support from family	47 (37.0)	$n = 127$
College level		$\chi^2(1) = 1.13$
Lowerclassmen	52 (37.4)	$p = .29$
Upperclassmen	87 (62.6)	$n = 139$
GPA		$\chi^2(1) = 0.41$
3.5 or higher	61 (43.9)	$p = .52$
Less than 3.5	78 (56.1)	$n = 139$

*$p < .05$. **$p < .01$. ***$p < .001$

Demographic differences between PsyD and PhD interests. Exploratory chi-square tests for independence were conducted to explore the relationship between other demographic factors and interest in PsyD school psychology programs. Analyses were conducted on the 315 participants who endorsed doctoral interest. Results are displayed in Table 7. Interest in school psychology PsyD programs was not found to be significantly related to race, gender, marital status, or having financial dependents. Results did not demonstrate a significant relationship between having at least one parent with a graduate education, father's education, and mother's education on interest in school psychology PsyD programs.

Results revealed a statistically significant association between current means of paying for undergraduate education and interest in school psychology PsyD programs.

Specifically, students without financial support from family to pay for their undergraduate education were less likely to endorse interest in school psychology PsyD programs compared to students with financial support from family and other means of payment, χ^2 (1, $N = 272$) = 6.33, $p = .01$, Cramér's V = .15. Expected means to pay for graduate school was found to be independent of interest in school psychology PsyD programs. Results indicated a statistically significant association between level in college and interest in PsyD programs. Specifically, lowerclassmen were more likely to endorse interest in PsyD programs compared to upperclassmen. GPA and PsyD were also found to be significantly related. Students with GPAs less than 3.5 were more likely to endorse interest in school psychology PsyD programs compared to students with higher GPAs.

Table 7

Differences in Demographics Between Students Interested in PsyD and PhD Programs

Characteristic	*n* (%)	Chi square tests of independence
Gender		$\chi^2(1) = 0.30$
Male	38 (12.6)	$p = .59$
Female	263 (87.4)	$n = 301$
Race		$\chi^2(1) = 0.87$
White	209 (69.2)	$p = .35$
Racial minority	93 (30.8)	$n = 302$
Marital status		$\chi^2(1) = 2.25$
Single, never married	292 (93.9)	$p = .13$
Married or domestic partnership/Widowed/Divorced/Separated	19 (6.1)	$n = 311$
Financial dependents		$\chi^2(1) = 1.10$
Children or providing for someone	12 (3.9)	$p = .30$
No dependents	298 (96.1)	$n = 310$
Parent education		$\chi^2(1) = 0.79$

One or more parents with graduate degree	103 (33.1)	$p = .38$
No parent with graduate degree	208 (66.9)	$n = 311$
Father education		$\chi^2 (2) = 2.42$
No college degree	144 (46.6)	$p = .30$
College degree	101 (32.7)	$n = 309$
Graduate degree	64 (20.7)	
Mother education		$\chi^2 (2) = 0.12$
No college degree	107 (34.4)	$p = .94$
College degree	136 (43.7)	$n = 311$
Graduate degree	68 (21.9)	
Means to pay for undergrad education		$\chi^2 (2) = 6.41$
No financial support from family	125 (40.2)	$p = .04*$
Financial support from family, only	39 (12.5)	$\varphi = .14$
Financial support from family, plus	147 (47.3)	$n = 311$
Expected means for graduate education		$\chi^2 (2) = 4.23$
No financial support from family	186 (64.8)	$p = .12$
Financial support from family, only	10 (3.5)	$n = 287$
Financial support from family, plus other means	91 (31.7)	
College level		$\chi^2 (1) = 4.50$
Lowerclassmen	117 (37.6)	$p = .03*$
Upperclassmen	194 (62.4)	$\varphi = .12$
		$n = 311$
GPA		$\chi^2 (1) = 4.89$
3.5 or higher	186 (59.6)	$p = .03*$
Less than 3.5	126 (40.4)	$\varphi = .13$
		$n = 312$

$*p < .05. **p < .01. ***p < .001$

Reasons for applying. A series of chi-square tests for independence were also utilized to examine the association between reasons that students decided to apply to school psychology programs and doctoral interest. Analyses used to assess relationships between qualitative factors and interest in doctoral school psychology programs were

conducted on the 442 participants who attempted to respond to items on the qualitative

portion of the survey. Results of omnibus analyses are shown in Table 8. Interest in

doctoral school psychology programs did not differ by when students decided to apply

(i.e., high school, college, or after a work-related experience), intentions to take time off

prior to applying, or plans to apply to graduate programs other than school psychology.

Among individuals who were interested or undecided in applying to other programs,

results demonstrated a statistically significant difference between intentions to apply to

programs other than school psychology and plans to apply to solely to school psychology

on doctoral interest in school psychology programs. When race was entered as a control

variable, this relationship was only significant among White students. White participants

who endorsed prospects to apply to clinical programs were more likely to express

doctoral school psychology interest than those interested in counseling programs, χ^2 (1, N

= 111) = 29.83, $p < .001$, Cramér's V = .52. Additionally, White students were more

likely to be concurrently interested in clinical psychology programs compared to other

graduate programs, χ^2 (1, $N = 92$) = 10.28, $p = .001$, Cramér's V = .33. Conversely,

interest in doctoral programs was lower among White participants concurrently interested

in counseling psychology programs compared to other graduate programs, χ^2 (1, $N =$

113) = 6.82, $p = .01$, Cramér's V = .25. Results demonstrated a non-significant trend

between concurrent interest in specialties other than school psychology and doctoral

interest in school psychology programs among racial minority students.

There was a statistically significant difference among students who identified

school psychology as a first career choice and those who did not in doctoral interest in

school psychology programs. This association was found to be statistically significant

among White students only. White participants who identified school psychology as a first career choice were less likely to endorse doctoral interest compared to those who did not distinguish school psychology as a first choice.

Having a school psychology program in the same undergraduate institution and interest in doctoral school psychology programs were found to be independent of one another. However, there was a statistically significant association between having a school psychology program within the same institution and interest in doctoral programs among students identifying as racial minorities only. Racial minority students with a school psychology program within their current undergraduate institutions were more likely to endorse specialist school psychology interest than those who were unsure about a school psychology program at their college or university, χ^2 (1, $N = 117$) = 5.82, $p =$ .02, Cramér's V = .22. Similarly, racial minority students who denied having a school psychology program within their undergraduate institutions were more likely to express specialist interest in school psychology compared to those who were unaware of a school psychology program in their institution, χ^2 (1, $N = 43$) = 6.17, $p = .01$, Cramér's V = .39.

Distance of school psychology programs in which students endorsed interest and doctoral interest in school psychology programs were found to be significantly related. Students considering both local and out-of-state options were more likely to endorse interest in doctoral school psychology programs compared to those considering only local options, χ^2 (1, $N = 269$) = 21.310, $p < .001$, Cramér's V = .28. Significant associations were not found between interest in doctoral school psychology programs and having a school psychology or education faculty member as a role model, personal or professional experience with a school psychologist, or discouragement from applying to graduate

school. Belonging to a professional or student psychology organization was not found to be significantly related to interest in doctoral school psychology programs.

Results indicated a significant relationship between expected primary employment setting after graduate school completion and interest in doctoral school psychology programs. When controlling for race, the relationship between primary employment setting and interest in doctoral school psychology programs was significant among White students only. White students interested in doctoral school psychology programs were more likely to select private practice as an primary employment setting over schools, χ^2 (1, $N = 148$) = 16.70, $p < .001$, Cramér's V = .34. Similarly, White participants who expressed interest in doctoral school psychology programs were more likely to expect college professorship as primary employment as opposed to the school system, χ^2 (1, $N = 98$) = $p < .001$, 13.28, Cramér's V = .37. Furthermore, the proportion of White students who chose Other employment settings were more likely to endorse doctoral interest compared to those who selected the school system as their primary employment setting, χ^2 (1, $N = 107$) = 20.90, $p < .001$, Cramér's V = .44.

Table 8

Influence of Qualitative Factors on Doctoral School Psychology (SP) Programs

Characteristic	n (%)	Chi square tests of independence
When students decided to apply		χ^2 (2) = 0.67
High school	90 (24.4)	$p = .71$
College	273 (74.0)	$n = 369$
After a work-related experience	6 (1.6)	
Time off after college		χ^2 (1) = 0.40
No, applying straight to graduate school	190 (70.1)	$p = .53$
Yes, taking a break before graduate school	81 (29.1)	$n = 271$

Applying to programs other than SP		$\chi^2(2) = 5.48$
Yes	230 (52.0)	$p = .07$
No	97 (21.9)	$n = 442$
Undecided	115 (26.0)	
Applying to other specialties		$\chi^2(2) = 33.62$
Clinical Psychology	78 (33.8)	$p = < .001***$
Counseling Psychology	86 (37.2)	$\varphi = .38$
Other	67 (29.0)	$n = 231$
Applying to other specialties (White, only)		$\chi^2(2) = 30.71$
Clinical Psychology	45 (28.5)	$p = < .001***$
Counseling Psychology	66 (41.8)	$\varphi = .44$
Other	47 (29.7)	$n = 158$
Applying to other specialties (Racial minority, only)		$\chi^2(2) = 3.65$
Clinical Psychology	33 (47.1)	$p = .16$
Counseling Psychology	19 (27.1)	$n = 70$
Other	18 (25.7)	
SP as first choice		$\chi^2(1) = 5.96$
Yes	96 (30.2)	$p = .02*$
No	222 (69.8)	$\varphi = .14$
		$n = 318$
SP as first choice (White, only)		$\chi^2(1) = 11.10$
Yes	59 (27.7)	$p = .001**$
No	154 (72.3)	$\varphi = .23$
		$n = 213$
SP as first choice (Racial minority, only)		$\chi^2(1) = 0.02$
Yes	35 (35.4)	$p = .89$
No	64 (64.6)	$n = 99$
SP program at undergraduate institution		$\chi^2(2) = 4.08$
Yes	293 (66.3)	$p = .13$
No	38 (8.6)	$n = 442$
I don't know.	66 (14.9)	
SP program at undergraduate institution (White, only)		$\chi^2(2) = 0.66$
	204 (67.3)	$p = .72$
Yes	47 (15.5)	$n = 303$
No	52 (17.2)	
I don't know.		
		$\chi^2(2) = 7.65$
SP program at undergraduate institution (Racial	86 (66.7)	$p = .02*$

minority, only)	12 (9.3)	$\varphi = .24$
Yes	31 (24.0)	$n = 129$
No		
I don't know.		
Location of SP program		$\chi^2 (2) = 21.45$
Local, only	102 (33.8)	$p = < .001***$
Out-of-state, only	33 (10.9)	$\varphi = .27$
Both local and out-of-state	167 (55.3)	$n = 302$
SP or education faculty role model		$\chi^2 (1) = 0.62$
Yes	115 (36.2)	$p = .43$
No	203 (63.8)	$n = 318$
Personal/professional experience with SP		$\chi^2 (1) = 2.62$
Yes	175 (55.4)	$p = .11$
No	141 (44.6)	$n = 316$
Discouraged from applying to graduate school		$\chi^2 (1) = 0.99$
Yes	90 (28.5)	$p = .32$
No	226 (71.5)	$n = 316$
Expected primary employment setting		$\chi^2 (3) = 21.47$
Private practice	121 (38.4)	$p = < .001***$
College professor	36 (11.4)	$\varphi = .26$
School system	100 (31.7)	$n = 315$
Other	58 (18.4)	
Expected primary employment setting (White, only)		$\chi^2 (3) = 31.41$
Private practice	77 (36.5)	$p = <.001***$
College professor	27 (12.8)	$\varphi = .39$
School system	71 (33.6)	$n = 211$
Other	36 (17.1)	
Expected primary employment setting (Racial minority, only)		$\chi^2 (3) = 4.00$ $p = .26$ $n = 99$
Private practice	42 (42.4)	
College professor	9 (9.1)	
School system	28 (28.3)	
Other	20 (20.2)	
Professional/student organizations		$\chi^2 (1) = 1.90$
Yes	132 (41.8)	$p = .17$
No	184 (58.2)	$n = 316$

$*p < .05. **p < .01. ***p < .001$

Discussion

The aim of the current study was to investigate the relationship between demographic characteristics and interest in doctoral and specialist school psychology programs among students in general, and racially diverse students, specifically. Additionally, this study intended to investigate demographic differences between students who are interested in PsyD versus PhD programs in school psychology. Results did not support any of the three hypotheses that were proposed herein. Specifically, a statistically significant relationship was not found between doctoral interest in school psychology and higher household incomes, having at least one parent with a graduate degree, financial support from family to pay for undergraduate education, or expected familial financial support to pay for graduate school. Among racially diverse students, a significant association was also not established between interest in doctoral school psychology programs and higher household incomes or having at least one parent with a graduate level education. Furthermore, a significant relationship was not found between higher household incomes and interest in PsyD programs.

A lack of significant relationships between various demographic factors (e.g., race, household income, and parental education) and increased interest in doctoral programs was surprising given the existing data supporting the relationship between race, higher household incomes, and having at least one parent with a graduate degree on educational attainment (McCallum, 2016; McFarland et al., 2018; Mullen, Goyette, & Soares, 2013). Although research supports the presence of a school psychology graduate pipeline for racially diverse individuals (Gadke, Valley-Gray, & Rossen, 2017) and psychology as a whole (Maton, Kohout, Wicherski, Leary, & Vinokurov, 2006), one

49

potential reason for the non-significant findings is that the current study focused on prospective interest in school psychology rather than actual attendees of school psychology graduate programs. As research demonstrates that racial minorities constitute only 25% of school psychology programs, it is evident that students of color are underrepresented in the field (Gadke et al., 2017). While interest may be similar across demographic characteristics during undergraduate years, racial, economic, and social factors may serve as barriers from applying to or successfully matriculating into school psychology programs. Additionally, data from student NASP members who are currently enrolled in school psychology graduate programs indicated that less than half of the school psychology graduate students matriculated directly into their graduate programs after completing their undergraduate education (Bocanegra, Rossen, Grapin, 2017). Since the current study focused only on undergraduate students, it is likely that the findings failed to account for the socioeconomic profile of individuals who took time off from school before choosing to pursue school psychology. Obstacles to transitioning to respecialization into school psychology after working in a related professional career include existing family duties, issues with scheduling time to attend the graduate program, and inconvenience of relocating (Bocanegra et al., 2017; NASP 2016). Furthermore, one potential reason for the non-significance of results is that undergraduate students may lack fundamental knowledge of the job and funding opportunities that each degree affords (i.e., specialist versus doctoral, and PsyD versus PhD).

Exploratory analyses were conducted to further investigate the relationships between other demographic characteristics and doctoral interest in school psychology programs among students. Results indicated that lowerclassmen (i.e., freshmen and

sophomores) were significantly more likely to endorse interest in school psychology doctoral programs compared to upperclassmen (i.e., juniors and seniors). When controlling for race, this relationship was found to be significant among White students only. These findings indicate that race may have an impact on the positive relationship between lowerclassmen status and doctoral interest in school psychology programs. Research has demonstrated that undergraduate students reported higher intentions for applying to school psychology graduate programs immediately following a short informational video regarding the profession and recruitment. When students' intentions were assessed yearly for four years after viewing the video, students who watched the video were not found to have significantly higher intentions of applying to school psychology programs compared to a control group (Bocanegra, Gubi, Callan, & Clayson, 2019). The findings from the longitudinal study by Bocanegra and colleagues (2019) suggest that continued exposure about school psychology and the recruitment process might be necessary in maintaining choice intentions of applying to school psychology programs. In the present study, lowerclassmen might have been more likely to express interest in school psychology as they may have recently taken introductory psychology classes compared to upperclassmen who were exposed to different subfields earlier in their undergraduate education.

Additional analyses of the relationship between demographic characteristics and interest in PsyD versus PhD programs were also conducted. Results demonstrated that students with no financial support from family to pay for undergraduate education were significantly less interested in PsyD programs than students receiving some financial support from family. This finding confirms existing research that supports the lack of

funding opportunities and higher graduate school debt for students in PsyD programs compared to PhD programs (Norcross, Ellis, & Sayette, 2010; Doran, Kraha, Marks, Ameen, & El-Ghoroury, 2016). A longitudinal study revealed that increased debt has a significant negative effect on attendance in more expensive graduate school programs (e.g., doctoral, MBA, and first professional degrees) among public college students (Zhang, 2013). Existing research suggests that PsyD programs may be a more expensive option for students compared to PhD programs. Although information on funding availability for school psychology programs has not been researched, prior research on funding in clinical psychology programs demonstrates that there are increased opportunities for full tuition remission, assistantships, and fellowships in research-based PhD programs compared to self-supporting PsyD programs. Alarmingly, 81% of PsyD programs included in the study failed to offer full tuition remission for its students. Additionally, approximately only 7% of PsyD programs offered more than half of students' full tuition remission (Norcross et al., 2010). Given the existing research supporting increased college debt as a limiting factor for attendance for more expensive graduate programs, the findings of the current study suggest that students with no financial support from family to pay for undergraduate education, and increased college debt, may not be as interested in PsyD programs, which offer less funding than PhD programs. Recruitment strategies for school psychology programs, particularly PsyD programs, should focus on tuition remission, including grants, scholarships, and fellowships (Chandler, 2011). According to NASP (2016), additional recruitment strategies include advertising the career and personal perks of a school psychology degree, such as job availability, employment flexibility, and competitive pay.

Results also demonstrated that lowerclassmen were significantly more likely to express interest in school psychology PsyD programs than upperclassmen. PhD programs, which offer more funding than PsyD programs (Norcross et al., 2010), may be a more appealing option for upperclassmen that are faced with the imminent decision of attending graduate school, and that are likely more aware of college debt as a major factor in their decisions to attend graduate school. Compared to students with higher GPAs (i.e., 3.5 and higher), students with lower GPAs were significantly less interested in school psychology PsyD programs. Norcross and colleagues (2010) found that the average incoming GPAs increased linearly from practice-focused clinical psychology doctoral programs (i.e., 3.4 – 3.5) to research-focused doctoral programs (i.e., 3.6). Verbal, quantitative, and analytical writing scores on the GRE followed this similar trajectory as programs increased in research focus. Furthermore, PsyD programs were increasingly less likely to require GREs as an admission requisite. Clinical PsyD programs housed with the university psychology department had an average acceptance rate of 26%, compared to a 7% acceptance rate among research-heavy PhD programs (Norcross et al., 2010). Although an aggregate of incoming student GPAs and GRE scores were not available specifically for school psychology PhD and PsyD programs (Michalski, Cope, & Fowler, 2019), these findings suggest that research-focused PhD programs may have stricter admission requirements, including higher GPA requirements, compared to PsyD programs. Furthermore, these findings suggest that students may be selecting options for doctoral study based on the perceived competitiveness of their undergraduate GPA.

Exploratory analyses were conducted to investigate the relationship between doctoral interest in school psychology and other factors related to exposure to school psychology that were gathered in the second part of the survey. Compared to students concurrently interested in counseling psychology graduate programs or other miscellaneous graduate programs, students that synchronously endorsed interest in clinical psychology graduate programs were significantly more likely to endorse interest in doctoral school psychology programs. On the other hand, concurrent interest in counseling programs was significantly related to decreased interest in doctoral school psychology programs compared to those interested in a variety of other graduate programs. These findings highlight the importance of increased outreach efforts by APA and NASP among students applying to clinical psychology programs to increase awareness of school psychology as another graduate option. When controlling for race, the relationship between interest in applying to other graduate programs and doctoral interest in school psychology remained significant only among White students. Thus, race has an effect on the relationship between prospects to apply to clinical psychology or other graduate programs and doctoral interest in school psychology. Since undergraduate students interested in school psychology doctoral programs are also concurrently interested in clinical psychology programs, NASP should disseminate information about school psychology to clinical programs as well. NASP (2016) recommends that efforts should be made to recruit individuals from clinical psychology, which currently experiences an overproduction of practitioners, for respecialization.

Results indicated that students who identified school psychology as a first career choice were more interested in specialist school psychology programs. When controlling

for race, results indicated this relationship to be significant among White students only. These results demonstrated that race has an impact on the association between school psychology as a first career choice and interest in specialist programs. Research demonstrates that only 58% of current school psychology students identified school psychology as a first career choice (Bocanegra, Rossen, & Grapin, 2017). Bocanegra and researchers (2015) found that increased exposure and knowledge to the field were associated with higher intentions of applying to school psychology graduate programs among undergraduate upperclassmen. Although research does not support a significant difference between White and racially diverse undergraduate students in their exposure to school psychology (Bocanegra, Gubi, Fan, Hansmann, 2015), the results of the present study underscore the need for additional exposure to school psychology in attracting students of color to the field. After a 2018–2019 pilot, NASP's Multicultural Affairs Committee launched an exposure initiative to actively disseminate information about school psychology to diverse high school and undergraduate students. Known as the NASP Exposure Project (NASP-EP), this initiative has shared information about the field to 10,000 students (NASP, n.d.). NASP openly shares its presentation materials and flyers on its website to allow graduate students, practitioners, and faculty members in school psychology to easily distribute relevant information about the various roles of school psychologists, the primary work setting, opportunities to work with children and families, and recruitment to graduate programs. Flyers are also available in Spanish. Given the dearth of racially diverse graduate students and practitioners in school psychology, active information dissemination is crucial to increase exposure to the field among students of color.

Students who expected their primary employment setting after completion of graduate school to be private practice, college professorship, or other employment options (e.g., hospital, research, non-profit organizations, etc.) were significantly more likely to endorse doctoral interest in school psychology compared to students interested in working primarily in schools. When race was entered as a control variable, this relationship was significant among White students only. Thus, race had an impact on the relationship between primary employment settings and doctoral interest in school psychology. These findings suggest that the school system may be a more appealing work setting to White students interested in specialist school psychology programs.

Racial minority students who identified having a school psychology program within their undergraduate college or university were significantly more likely to be interested in specialist programs in school psychology compared to those who were unaware of a school psychology program in their current undergraduate institution. Additionally, racially diverse students who were unaware of a school psychology program at their current school were less likely to be interested in doctoral school psychology programs than those who did not have a school psychology program at their institution. Existing research has found that having a school psychology program at one's undergraduate institution was not a common mode of first exposure to school psychology. Personal contact with individuals in the field, such as professors or faculty members, relatives and friends, and school psychologists, were more common forms of first exposure to the field (Bocanegra, Rossen, & Grapin, 2017). Compared to nonminority students, racially diverse undergraduate students enrolled in an introductory applied psychology course demonstrated higher post-course intentions for selecting

school psychology as a career (Bocanegra, Gubi, Callan, Grapin, & McCall, 2019). The findings of the current study suggest that school psychology programs on campus are associated with increased specialist interest among minority students, suggesting a differential influence of school psychology programs on the undergraduate campus among students of color. More importantly, these findings highlight the need for exposing school psychology to racially diverse students to attract them to graduate study. The NASP Exposure Project, for example, is one initiative that allows graduate students and practitioners in the field access to online materials to disseminate information about school psychology to racially diverse high school and undergraduate students (NASP, n.d.).

Additional analyses demonstrated that students considering both local and out-of-state graduate program options were more likely to express interest in doctoral school psychology programs compared to students only considering local options for study. These findings suggest that individuals interested in doctoral school psychology programs were able to predict a wider range of options for graduate study compared to students interested in specialist programs. While Black undergraduate psychology students and university professors identified location of graduate program as a major factor in graduate program selection (i.e., large, urban city, warm climate, and an ample Black population), financial support was deemed more vital to this decision (Chandler, 2011). According to the U.S. News and World Report (Powell & Kerr, 2019), the average cost of tuition and fees for out-of-state public universities was more than $10,000 higher (i.e., $22,557) compared to in-state public universities (i.e., $10,116). Out-of-state study requires additional costs, including housing, which may not be an affordable option for

some students. While students interested in doctoral studies may be willing to or able to invest time and money in an out-of-state five-year program, students interested in specialist programs may be more likely to consider local options that are less costly and time-consuming.

Ranked data of factors associated with interest in school psychology corroborated existing research that highlights working with children as the primary incentive for entering the field (Bocanegra, Rossen, & Gupi, 2017; Graves & Wright, 2007). School psychology students reported greater levels of excitement in working with children and their families rather than in the specific responsibilities of a school psychologist, including interventions, assessments, program evaluations, respectively (Bocanegra et al., 2017). Consequently, recruitment efforts should focus on the school psychologists' role in collaborating with families and serving children. Alternately, the results of the current study found that recruiting efforts by APA and NASP were the least compelling factors in influencing undergraduate student interest in school psychology. These findings mirrored existing research by Graves and Wright (2007), which found that almost all school psychology students deemed recruiting efforts by APA and NASP of minimal importance in their decision to attend school psychology programs. The literature suggests that NASP and APA should focus their efforts differently, such as stressing the opportunities for students to work with children of all ages.

Overall, race appeared to play a crucial role in the relevance of certain factors on doctoral and specialist interest in school psychology graduate programs. White students were more likely to endorse interest in doctoral school psychology programs as lowerclassmen and if they were concurrently interested in applying to clinical psychology

or other graduate programs than counseling programs. Compared to those interested in doctoral programs, White students interested in specialist programs were more interested in working in the school setting, and were more likely to identify school psychology as a first career choice. These findings suggest that White students interested in pursuing specialist degrees in school psychology demonstrated more commitment to school psychology. The results of the current study are not surprising – while specialist degrees afford individuals the opportunity to work mainly as practitioners of school psychology, doctoral degrees grant additional opportunities for students to pursue careers in administration, private practice, university faculty careers, or research (NASP, n.d.).

Effective recruitment tactics to successfully attract prospective students of color to psychology graduate programs include the involvement of diverse faculty and current students in the recruitment stage, faculty initiation of individualized communication with potential students, and a representative pool of diverse faculty and students (Rogers & Molina, 2006). Since receipt of information appears to lead to educational aspirations for graduate school and a potentially larger graduate applicant pool, it is crucial for school psychology graduate programs to actively educate undergraduates about the field (Bocanegra et al., 2015). HBCU student and faculty unfamiliarity with school psychology underscores the need for active recruitment methods by APA and NASP at HBCU universities to educate students of color about graduate and employment opportunities in school psychology (Graves & Wright, 2009). Prior research demonstrates that contact with a professor or faculty advisor was the most common means of initial exposure to the field among current school psychology graduate students (Bocanegra, Rossen, & Grapin, 2017). Personal contact with school psychology faculty during undergraduate education

appears to be pivotal in increasing knowledge and interest in school psychology as a career choice and should utilized as a recruitment method.

Future Directions

Future studies should employ longitudinal research designs to investigate the relationship between prospective undergraduate interest in school psychology and actual follow-through with applying, to determine the demographic characteristics, such as race, household income, and parental education, that might serve as barriers to applying to school psychology graduate programs. Longitudinal research can also bridge the gap between studies that focus on prospective interest (Bocanegra, Gubi, Fan, & Hansmann, 2015) and retrospective interest of students already matriculated into graduate programs (Bocanegra, Rossen, Grapin, 2017; Graves & Wright, 2007). Additionally, future studies investigating prospective interest in school psychology should recruit participants from related psychology and education settings, as less than half of school psychology graduate students matriculated directly into their graduate programs after earning their undergraduate degree (Bocanegra, Rossen, Grapin, 2017).

Additional research is required to replicate the findings of this study, as the current study is novel in its investigation of the differences between specialist and doctoral interest in school psychology. Prior research has focused on the factors related to interest in school psychology without a particular focus on whether differences exist in the demographic characteristics and qualitative factors related to interest in pursuing different degrees in school psychology (Bocanegra, Rossen, Grapin, 2017; Graves & Wright, 2007). The results of the present study found that factors related to specialist interest in school psychology programs were significant among White lowerclassmen,

and among White students who had identified school psychology as a first career choice and expected the school setting as their primary employment setting. Further research is required to replicate these findings and to examine the factors that are meaningful in attracting students of color to the field, as minorities are still underrepresented in both graduate programs and the field (Gadke, Valley-Gray, & Rossen, 2017; Walcott & Hyson, 2018).

Limitations

One limitation of this study was its focus on undergraduate students' prospective interest in school psychology, which did not take into account individuals who took time off after their undergraduate education before attending graduate school. According to a recent NASP survey of its graduate student members, over half of the school psychology graduate students did not directly matriculate into graduate school after completing their undergraduate education (Bocanegra, Rossen, Grapin, 2017). Accounting for students who pursued work careers prior to graduate school matriculation might reflect different demographic characteristics. Since students who are interested in pursuing school psychology as a career might have been more likely to participate in the survey, this study's sample likely did not incorporate sufficient responses from students explicitly not interested in the profession. Another limitation of this study is that it did not investigate differences between students interested in school psychology graduate programs versus students not interested in the field, as only a few participants explicitly denied interest in school psychology as a career ($n = 13$). Since only a quarter of graduate students in either specialist or doctoral school psychology programs are racially diverse (Gadke, Valley-Gray, & Rossen, 2017), demographic differences may not have emerged in comparisons

of program level interest, but could have surfaced between students interested in school psychology compared to those who were not. An additional limitation of this study is the lack of diverse students from each racial category to examine differences between racial minority groups in their interest in school psychology programs.

Implications for the Profession of School Psychology

Despite the growing population of racially diverse students in U.S. public schools (McFarland et al., 2017), racial minorities continue to be underrepresented as practitioners, researchers, and students of school psychology. Recent data demonstrates that 87.2% of school psychologists are White (Walcott & Hyson, 2018) and only one quarter of school psychology graduate students are racially diverse (Gadke, Valley-Gray, & Rossen, 2017). In light of these issues of diversity within the field, efforts need to focus on recruitment of diverse individuals. Effective graduate psychology recruitment strategies to obtain a more diverse graduate pool include a high representation of both faculty and students of color within departments and programs, an admissions process that weighs recommendation letters, personal statements, and past experiences in the field of greater importance than GPA and GRE scores, and financial support, including opportunities for fellowships and assistantships (Rogers & Molina, 2006). Psychology programs that have successfully enrolled a diverse graduate body have employed approximately 8 out of 10 recruitment strategies (Rogers & Molina, 2006), demonstrating the high level of involvement needed to increase racial representation in graduate psychology programs.

The current study's findings revealed that factors attracting undergraduate students to school psychology doctoral and specialist programs were different among White and racially diverse students, suggesting that school psychology graduate programs need to tailor their recruitment strategies to attract students of color. Specifically, racially diverse individuals who attended an undergraduate program with a school psychology program on the same campus were more likely to endorse interest in

specialist school psychology programs than those who were unaware of a school psychology program at their institution. Prior research has shown that increased exposure to school psychology among undergraduate upperclassmen is associated with higher intentions of applying to school psychology graduate programs (Bocanegra, Newell, & Gubi, 2016). Greater efforts to expose students of color to school psychology are crucial for higher intentions for applying to school psychology graduate programs. The NASP Exposure Project offers practitioners, faculty, and graduate students materials regarding the various roles school psychologists undertake in the school setting, ways to support culturally diverse students as a school psychologist, and information about graduate school, to high school students and undergraduates (NASP, n.d.).

Increasing diversity in school psychology is integral to fostering a more inviting environment for students of color. A qualitative study revealed that a lack of meaningful relationships with faculty and peers was a leading reason for attrition among African American school psychology graduate students. Students believed that racial and economic differences from peers and limited support from faculty negatively impacted their relationships in graduate school (Proctor & Truscott, 2012). Mentorship is crucial for students of color to feel supported during their graduate training. An increase in the number of racially diverse practitioners and faculty can ideally lead to additional opportunities to mentor incoming students of color. Alarmingly, a recent study found that Black school psychology graduate students experienced the highest rate of racial microaggressions before and during internship, compared to other racial minority groups (Proctor, Kyle, Lau, Fefer, & Fischetti, 2016). Diversifying the graduate pool can

potentially shape an environment that is more welcoming and accepting of students'

racial and economic differences.

It is crucial that undergraduate faculty take a more active role to address the

systemically disproportionate percentage of racially diverse students in school

psychology graduate programs. Given the limited knowledge of the field among

undergraduate students, undergraduate faculty in psychology must implement consistent

efforts to promote school psychology as a career and assist students in fostering

connections to the field through mentorship (Bocanegra, Gubi, Callan, & Clayson, 2019).

Undergraduate courses that can promote awareness of the profession include introductory

psychology classes and seminar courses. Increased awareness of micro-aggressions

among faculty is also warranted to address the unintentional and intentional biases and

discrimination that students of color face in school psychology programs (Proctor, Kyle,

Lau, Fefer, & Fischetti, 2016).

The present study is novel in its examination of demographic differences that

exist between students interested in doctoral and specialist school psychology graduate

programs. Since the current study focused on prospective interest in school psychology

programs, a longitudinal research design would be useful to assess factors that lead

students of color to their decisions to attend specialist and doctoral school psychology

programs. Additional research is required that will incorporate participants that have

taken time off after completing their undergraduate degrees and those who have gained

experience in a work-related field prior to their graduate study.

Appendices

Appendix A.
Consent Form

Date
Dear Undergraduate Psychology Student,

You have been invited to take part in a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

If you agree to participate in this study, you will be asked to complete [30] questions that should involve no more than 15-20 minutes of your time. There are no known risks associated with your participation in this research. Although you will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

Any responses or information that you provide will be kept confidential and used for research purposes only. Your responses will not be made available to anyone other than the researchers. By completing the measures in this study, you will be providing your consent for participation. Please do not include your name on any forms within the research study in order to ensure anonymity.

Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty. For questionnaires, you have the right to skip or not answer any questions you prefer not to answer.

If there is anything about the study or your participation that is unclear or if you wish to report a research-related problem, you may contact Amrita Singh at xxx-xxx-xxxx, amrita.singh10@stjohns.edu, 8000 Utopia Parkway, Jamaica, New York 11439. For questions about your rights as a research participant, you may contact Dr. Marie Nitopi, IRB Coordinator at 718-990-1440.

Thank you for your time.

Recruitment Email (Professors)

Dear Professors of Psychology,

You have been invited to assist in forwarding a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate psychology students would be greatly appreciated.

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

www.qualtrics.com/abcd

Please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Recruitment Email (Faculty Advisors)

Dear Psi Chi/Psychology Club Chapter Faculty Advisor,

You have been invited to assist in forwarding a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate Psi Chi and Psychology Club members would be greatly appreciated.

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

www.qualtrics.com/abcd

Please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix D.
Recruitment Email (Program Chairs/Directors)

Dear Chair/Director of Undergraduate Psychology,

You have been invited to assist in forwarding a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate psychology students would be greatly appreciated.

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

www.qualtrics.com/abcd

Please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix E.
Recruitment Email (Chapter Presidents)

Dear Psi Chi/Psychology Club Chapter President,

You have been invited to assist in forwarding a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Your decision to forward the survey to your undergraduate Psi Chi members and Psychology Club members would be greatly appreciated.

Participation in this study will involve no more than 15-20 minutes of your members' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

www.qualtrics.com/abcd

Please feel free to forward this email to any psychology undergraduate students, student psychology clubs, professors of psychology, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix F.
Recruitment Email (Students)

Dear Undergraduate Psychology Student,

You have been invited to take part in a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Participation in this study will involve no more than 15-20 minutes of your time. There are no known risks associated with your participation in this research. Although you will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

www.qualtrics.com/abcd

Please feel free to forward this email to any psychology undergraduate students, professors of psychology, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix G.
Follow-Up Recruitment Email (Professors)

Dear Professors of Psychology,

You have recently received an email inviting you to forward a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate psychology students would be greatly appreciated.

If you have already chosen to forward this study to your colleagues, undergraduate students, or other psychology listservs, please know that your assistance is greatly appreciated. If you have not decided yet to forward the survey, your students may access this study online at:

www.qualtrics.com/abcd

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

If you have not done so already, please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix H.
Follow-Up Recruitment Email (Faculty Advisors)

Dear Psi Chi/Psychology Club Chapter Faculty Advisor,

You have recently received an email inviting you to forward a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate Psi Chi members and Psychology Club members would be greatly appreciated.

If you have already chosen to forward this study to your colleagues, undergraduate students, or other psychology listservs, please know that your assistance is greatly appreciated. If you have not decided yet to forward the survey, your students may access this study online at:

www.qualtrics.com/abcd

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

If you have not done so already, please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix I.
Follow-Up Recruitment Email (Program Chairs/Directors)

Dear Chair/Director of Undergraduate Psychology,

You have recently received an email inviting you to forward a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Although this study does not request survey completion by professors of psychology, your decision to forward the survey to your undergraduate psychology students would be greatly appreciated.

If you have already chosen to forward this study to your colleagues, undergraduate students, or other psychology listservs, please know that your assistance is greatly appreciated. If you have not decided yet to forward the survey, your students may access this study online at:

www.qualtrics.com/abcd

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

If you have not done so already, please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix J.
Follow-Up Recruitment Email (Chapter President)

Dear Psi Chi/Psychology Club Chapter President,

You have recently received an email inviting you to forward a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

Your decision to forward the survey to your undergraduate Psi Chi members and Psychology Club members would be greatly appreciated.

If you have already chosen to forward this study to your colleagues, undergraduate students, or other psychology listservs, please know that your assistance is greatly appreciated. If you have not decided yet to forward the survey, your students may access this study online at:

www.qualtrics.com/abcd

Participation in this study will involve no more than 15-20 minutes of your students' time. There are no known risks associated with their participation in this research. Although they will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

If you have not done so already, please feel free to forward this email to any professors of psychology, psychology undergraduate students, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix K.
Follow-Up Recruitment Email (Students)

Dear Undergraduate Psychology Student,

You have recently received an email inviting you to take part in a research study which aims to explore the demographic differences between undergraduate psychology students interested in applying to doctoral and master's programs in school psychology. This study will be conducted by Amrita Singh, M.S., a doctoral candidate in school psychology at St. John's University in Queens, New York. Her faculty sponsor is Dr. Marlene Sotelo-Dynega, Associate Professor, Director of Graduate Programs in School Psychology at St. John's University.

If you have already chosen to participate in this study, or forward it to fellow undergraduate students, other psychology professors, or other psychology listservs, please know that your assistance is greatly appreciated. If you have not decided yet to participate, you may access this study online at:

www.qualtrics.com/abcd

Participation in this study will involve no more than 15-20 minutes of your time. There are no known risks associated with your participation in this research. Although you will receive no direct benefits, this research may be used to identify the at-risk demographic factors that affect a student's interest and likelihood of applying to graduate school psychology programs.

If you have not done so already, please feel free to forward this email to any psychology undergraduate students, professors of psychology, or listservs of undergraduate psychology students who may be interested in participating in this study. Your assistance is greatly appreciated.

If you have any questions, please contact Amrita Singh at amrita.singh10@stjohns.edu.

Thank you for your time and consideration.

Appendix L.
Questionnaire (Adapted Reasons for Applying to School Psychology)

Section 1

1. Gender
    a. Male
    b. Female
    c. Transgender
    d. Other (Please specify.) _____
    e. Prefer not to respond.
2. What is your ethnicity? (Choose one or more.)
    a. American Indian or Alaskan Native
    b. Asian
    c. Black or African American
    d. Native Hawaiian or Other Pacific Islander
    e. White
    f. Hispanic
    g. Other (Please specify.) _____
3. What is your age? _____
4. Please state your marital status.
    a. Single, never married
    b. Married or domestic partnership
    c. Widowed
    d. Divorced
    e. Separated
5. Please state your financial dependents. (Please select all that apply.)
    a. I have children.
    b. I am providing with someone.
    c. I do not have children.
6. Please indicate your current education level in college.
    a. Freshmen
    b. Sophomore
    c. Junior
    d. Senior
7. What is the name of the undergraduate college/university you are attending, or have attended? _____
8. What is your current cumulative undergraduate GPA?
    a. Less than 1.0
    b. 1.0 – 1.49
    c. 1.5 – 2.49
    d. 2.5 – 3.49
    e. 3.5 – 4.0
9. Which school psychology programs do you wish to apply? (Please select all that apply.)
    a. M.A./M.S.

b. M.Ed.
c. Ed.S.
d. Psy.D.
e. Ph.D.
f. Ed.D.
10. Please select the highest level of education that your mother completed.
    a. Less than high school
    b. High school diploma or GED equivalent
    c. Vocational or technical training
    d. Associate's degree
    e. Bachelor's degree
    f. Master's degree
    g. Professional or doctoral degree
11. Please select the highest level of education that your father completed.
    a. Less than high school
    b. High school diploma or GED equivalent
    c. Vocational or technical training
    d. Associate's degree
    e. Bachelor's degree
    f. Master's degree
    g. Professional or doctoral degree
12. What is your total estimated household income?
    a. Less than $25,000
    b. $25,000 - $34,999
    c. $35,000 - $59,999
    d. $60,000 - $99,999
    e. $100,000 - $149,999
    f. $150,000 or more
    g. I don't know.
13. How are your currently paying for undergraduate education. (Please select all that apply.)
    a. Loans
    b. Scholarship or grants
    c. Financial support from parents or family
    d. Working at school or outside of school
    e. Other (Please specify.) _____
14. How do you intend to pay for graduate school? (Please select all that apply.)
    a. Loans
    b. Scholarship or grants
    c. Financial support from parents or family
    d. Working outside of school
    e. Assistantship or fellowship at school
    f. I don't know.
    g. Other (Please specify.) _____

Section 2

The following questions ask about your reasons for applying to school psychology programs. This section will take only 5-10 minutes of your time.

15. When did you decide you wanted to apply to school psychology graduate programs?
    a. High school
    b. College
    c. After a related work experience (Please specify.) _____
    d. I do not wish to attend a school psychology graduate program.
16. Does your undergraduate institution have a school psychology program?
    a. Yes
    b. No
    c. I don't know.
17. Are you applying to other specialties beside school psychology?
    a. Yes
    b. No
    c. Undecided.
18. If applying to other specialties other than school psychology, what other specialties?
    a. Clinical psychology
    b. Counseling psychology
    c. Other (Please specify.) _____
19. Is school psychology your first choice as a career?
    a. Yes
    b. No (Please specify your first career choice.) _____
20. Will you be taking time off after college to prepare yourself to apply to school psychology graduate programs?
    a. No, I am applying during my senior year of college, and do not plan on taking a break before graduate school.
    b. Yes, I plan on taking a break before applying to apply to graduate school. (If so, please specify what you will be doing or hope to do during this time.) _____
    c. I do not wish to apply to school psychology graduate programs.

21. How far are the school psychology graduate programs to which you are applying?
    a. I am considering only local options, within my state of residence.
    b. I am considering out-of-state options.
    c. I am considering both local and out-of-state options.
22. Please state the factors that influenced your decision to either stay local or go out-of-state for graduate school. _____
23. Did you have a school psychology or education faculty member as a role model?
    a. Yes
    b. No
24. Have you ever had a personal or professional experience with a school psychologist? (Please select all that apply.)
    a. Yes, when I was in school I met with a school psychologist.
    b. Yes, I interviewed/shadowed a school psychologist as part of a school assignment.
    c. Yes, I met or heard a school psychologist speak at a career event.
    d. Yes, one of my professors was a school psychologist.
    e. Yes, a friend or family member is a school psychologist.
    f. Yes, other (Please specify.) _____
    g. No.
25. Please indicate by whom you have been discouraged from applying to graduate school. (Please select all that apply.)
    a. Family
    b. Friends
    c. Teachers
    d. Professors
    e. Other (Please specify.) _____
26. Upon completion of your graduate education, where do you expect will be your primary employment setting?
    a. Private practice
    b. College professor
    c. School system (private or public)
    d. Other (Please specify.) _____
27. Please rank the extent to which the following influenced your decision to apply to school psychology graduate programs.
    a. Status of being a school psychologist
    b. Former role model
    c. Working with children
    d. Prospect of working in a school environment
    e. Job stability
    f. Income potential
    g. Public school work schedule
    h. Working in non-traditional settings (i.e., private practice; state government; clinics)
    i. Prospect of entering Academia
    j. Possibility of influencing educational policy

k. Recruiting efforts by the National Association of School Psychologists (NASP)
l. Recruiting efforts by the American Psychological Association (APA)
28. Do you belong to any professional and/or student psychology organizations (e.g., PsiChi, APA, NASP, etc.)
   a. No.
   b. Yes. (Please specify.) _____
29. Please specify other factors that influenced your decision to apply to school psychology graduate programs. _____

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