



Status of School Psychology in 2020: Part 1, Demographics of the NASP Membership Survey

Anisa N. Goforth
University of Montana

Ryan L. Farmer
Oklahoma State University

Samuel Y. Kim
Texas Woman's University

Shereen C. Naser
Cleveland State University

Adam B. Lockwood
Kent State University

Nicholas W. Affrunti
National Association of School Psychologists

Christy M. Walcott, PhD, Editor
Eastern Carolina University

Nicholas W. Affrunti, PhD, Coeditor
National Association of School Psychologists

ABSTRACT

This report highlights the results from the 2020 NASP Membership Survey, with a particular focus on the demographics and employment settings of school psychologists. For the current survey, 30% of NASP's regular and early career members were randomly selected by state of residence; 1,308 participants ultimately completed the survey. Results found that more than 80% of school psychologists identified as female, White, able-bodied, and monolingual. Further, the number of school psychologists with a specialist degree is increasing over time, while the number of school psychologists with doctoral degrees has remained steady. The average ratio of school psychologists-to-students was 1:1,233. Implications of these results are also discussed.

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Correspondence regarding this article should be addressed to Nicholas Affrunti, National Association of School Psychologists, 4340 East West Hwy, Suite 402, Bethesda, MD 20814; 301-657-0270, ext. 245; naffrunti@naspweb.org.

As the school psychology profession and demographics continue to evolve, the National Association of School Psychologists (NASP) has recognized the importance of examining the current landscape of the field. Every 5 years, NASP has conducted surveys of its members to take a snapshot of their demographics and professional practices, and although some aspects of the profession have changed, other aspects have not. For example, 20 years ago, most school psychologists were White, with less than 6% being members of minoritized groups (Curtis et al., 1999). The previous survey conducted in 2015 showed that 12% of school psychologists were members of minoritized groups (Walcott & Hyson, 2018). These trends are important to explore as the field considers ways to align the demographics of school psychology with the students and families they serve.

In addition to examining the current landscape, the membership survey also serves as an important tool for determining the extent to which NASP is meeting its strategic goals. In 2017, the NASP Leadership Assembly adopted five strategic goals: social justice, workforce shortages, leadership development, NASP Practice Model, and mental/behavioral health providers. The strategic goal related to workforce shortages is particularly relevant to this report. NASP aims to ensure that there is a high-quality and diverse school psychology workforce available to meet an increasing demand for school psychological services. Specifically, NASP has focused on (a) increasing the diversity and representativeness of school psychology practitioners in the field and (b) decreasing the student-to-school psychologist ratio.

With this in mind, the purpose of this report is to highlight the results from the 2020 NASP Membership Survey, with a particular focus on the demographics and employment settings of school psychologists. As the first of several reports, we will highlight the demographic characteristics of the profession, as well as examine trends over time. We will compare data collected in 2020 to those collected in previous iterations of the survey (e.g., 2015 NASP Membership Survey), with a particular lens towards NASP's strategic goals. This report builds upon work that has captured demographics, employment settings, and professional practices of school psychologists in previous years (e.g., McNamara et al., 2019; Walcott & Hyson, 2018).

METHOD

The NASP Membership Survey was developed by the NASP Research Committee in collaboration with the NASP Director of Research, using earlier versions and input from a number of stakeholders. For example, the committee reviewed the 2015 NASP Membership Survey, and committee members discussed the implications of administering the survey during the 2020 COVID-19 pandemic (e.g., the school year had been disrupted, remote learning was occurring). Further, input was obtained by the NASP Board of Directors, who provided insight regarding the updated practice domains and indicated their interest in administering an internal survey focused on the Strategic Goals of the association. The committee addressed concerns regarding NASP simultaneously administering two surveys, which may impact survey response rates. Consequently, some items from this internal survey (e.g., "To what extent do you believe you have adequate knowledge about social justice issues in school psychology?") were added to the NASP Membership Survey. Other items that overlapped with questions already a part of the NASP Membership survey (e.g., "Please estimate and report the ratio of students to school psychologists in your employing school district/agency...") were also included. We believed using a single survey would promote higher response rates and reduce survey fatigue among members.

Ultimately, the 2020 NASP Membership Survey was developed to measure school psychologists' experiences during the 2019-2020 academic year. The 53 items covered demographic questions (e.g., age, gender), school psychology practice (e.g., number of students enrolled, school psychologist-to-student ratio), and information about the respondent's position, credentials, and competencies. In this 2020 NASP Membership Survey, items related to gender, race, and ethnicity questions were modified to better represent respondent characteristics. For example, "Other" was modified to "nonbinary/third gender" in the current survey. In an effort to collect more precise information regarding school psychologists' race and ethnicity, the 2020 NASP Membership Survey included "Arab, Middle Eastern, or North African (AMENA) origin" and modified the "Hispanic, Latino, or Spanish origin" to "Hispanic or Latinx origin." These additional options were provided to more precisely represent school psychologists whose ethnic heritage may encompass a wide array of racial identities. For example, those from AMENA regions may racially identify as Black, Asian, or White, though they may share a similar ethnic heritage. Additionally, this terminology aligns the membership survey with how NASP is collecting demographic information across different efforts (e.g., membership census). Each participant was asked to report both ethnicity and race.

The response style of the items ranged from multiple choice (e.g., "Which best characterizes the geographic location of the school(s) you serve?") to fill in the blank (e.g., "On average, what percent of your work time per

week did you work in each of these grade levels?”). The 2020 NASP Membership Survey can be retrieved on the NASP website: <https://www.nasponline.org/research-and-policy/nasp-research-center/member-surveys>.

Participants

Participants were randomly selected from the NASP member pool in autumn 2020. NASP collectively represents more than 25,000 school psychologists, graduate students, and related professionals, both in the United States and internationally. Additionally, NASP membership consists of multiple self-selected categories, including Regular, Student, Early Career, Retired, International, and Associate. Regular Members were those who had been (a) trained in school psychology, (b) certified by the National School Certification System, (c) credentialed by a state as a school psychologist, or (d) working 50% or more as a faculty member in a school psychology graduate program. Early Career members were those who have graduated from a school psychology graduate program and are in their first or second year of practice.

We used a function in *R* to randomly sample approximately 30% of Regular and Early Career members, by state of residence. That is, we sampled members who lived in all 50 U.S. states, the District of Columbia, and Puerto Rico to ensure geographic representation. Ultimately, 3,935 school psychologists were invited to complete the survey, and 1,308 completed the survey (response rate = 33%).

Procedure

Once approved by the NASP Research Committee and the NASP Board of Directors, participants were randomly selected and emailed on September 21, 2020. In the recruitment email, participants were notified of (a) the purpose of the survey, (b) the link to the survey, and (c) incentives for completing the survey (i.e., random drawing for one \$250 gift certificate, three \$100 gift certificates, or twenty \$30 gift certificates). Eight reminder emails were sent in autumn 2020. These follow-up emails emphasized to participants the importance of the survey and its completion given that it is administered every 5 years. On December 4, participants were invited to complete a follow-up question related to their work setting. This item was sent separately from the main survey due to an administrative error; although descriptive information was collected, it could not be linked with the other data by respondent.

Once the survey period was completed, the data were downloaded by the NASP Director of Research and provided to members of the NASP Research Committee assigned to analyze and disseminate the data. The data were cleaned and analyzed in *R* (4.0) using packages in the tidyverse (1.3.0) as well as ggstatsplot (0.7.1), rstatix (0.7.0), Hmisc (4.4.1), skimr (2.1.2), and Likert (1.3.5).

RESULTS

Overall, 1,308 school psychologists participated in the 2020 NASP Membership Survey. Consistent with Walcott and Hyson (2018), we summarized the results of the survey and aligned them with relevant NASP strategic goals. We also compared the results with data collected in previous membership surveys (e.g., Castillo et al., 2012; Castillo et al., 2014; Curtis et al., 2003, 2004; Curtis et al., 1999; Walcott & Hyson, 2018). Unless otherwise noted, we present the data from the complete sample, not just those school psychologists employed in school districts; however, some data (e.g., ratios) only pertains to participants who were employed full time in a school system. Complete details for the total sample are provided in Tables 1 and 2; complete details for school psychology practitioners employed full-time in a school are provided in Tables 3 and 4.

We have organized the results of the 2020 NASP Membership Survey by (a) general demographics (e.g., age, gender), (b) race and ethnicity, (c) other workforce characteristics, (d) salaries, and (e) school psychologist-to-student ratios to align with the NASP strategic goal on workforce shortages.

Table 1. Demographic information for the Total Sample (n = 1,308)

	Mean (SD)	Range	n (%) Missing
Age	43.9 (11.9) [95% CI 43, 45]	25 to 86	0
	<i>n</i>	%SD [95% CI] ^a	<i>n</i> (%) Missing
Ethnicity	-	-	0 (0%)
Arab, Middle eastern, or North African (AMENA)	12	0.9 [0.2, 5.3]	-
Hispanic or Latinx	100	7.6 [3.8, 14.5]	-
Not of AMEA or Hispanic/Latinx origin	1037	79.3 [77.0, 81.4]	-
Prefer to self-describe	89	6.8 [3.3, 13.5]	-
Prefer not to answer	70	5.4 [2.4, 11.7]	-
Race	-	-	0
American Indian or Alaskan Native	7	0.5 [<0.1 , 4.6]	-
Asian	32	2.5 [0.7, 7.6]	-
Black or African American	51	3.9 [0.2, 9.7]	-
Native Hawaiian or Other Pacific Islander	1	0.1 [<0.1 , 0.4]	-
White	1,123	85.9 [77.7, 91.3]	-
More than one race	36	2.8 [0.9, 8.2]	-
Prefer to self-describe	22	1.7 [0.94, 6.5]	-
Prefer not to answer	36	2.8 [0.9, 8.2]	-
Gender	-	-	0 (0%)
Female	1,142	87.3 [79.4, 92.5]	-
Male	158	12.1 [7.9, 19.9]	-
Nonbinary	1	0.1 [<0.1 , 0.4]	-
Prefer to self-describe	3	0.2 [<0.1 , 0.4]	-
Prefer not to answer	4	0.3 [<0.1 , 0.4]	-
Disability Status	-	-	0 (0%)
Yes	69	5.3 [2.3, 11.6]	-
No	1,223	93.5 [86.8, 96.9]	-
Prefer not to answer	16	1.2 [0.2, 0.6]	-

Note. Missing percent is based on total $n = 1,308$. No exclusions have been made for outliers in this table. Confidence intervals were calculated using DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0).

¹ The 95% confidence interval (CI) indicates that if an estimate were taken repeatedly using the same methods, but with a new sample, then 95% of the confidence intervals would include the true estimate. This provides an indicator of the precision of our estimates in this report.

Table 2. Professional Characteristics of the Total Sample (n = 1,308)

	Mean (SD)	Range	<i>n</i> (%) Missing
Years of Experience	13.3 (9.99) [95% CI 13, 14]	0 to 52	44 (3.4)
	<i>n</i>	% [95% CI] ^b	<i>n</i> (%) Missing
Highest Degree in School Psychology	-	-	44 (3.4)
Master’s level only	111	8.8 [4.7, 10.6]	-
Specialist level	867	68.6 [59.0, 77.0]	-
Doctoral level	286	22.6 [15.5, 32.0]	-
Credentials	-	-	60 (4.6)
American Board of Professional Psychology	6	0.5 [.2, 1.0]	-
American Board of School Neuropsychology	30	2.3 [1.6, 3.3]	-
Board Certified Behavior Analyst	23	1.8 [1.2, 2.6]	-
Licensed Professional Counselor	35	2.7 [1.9, 3.7]	-
Licensed Psychologist	168	12.8 [11.1, 14.8]	-
Nationally Certified School Psychologist	817	62.5 [59.8, 65.1]	-
State Department of Education Teaching Credential	1,162	88.8 [83.2, 91.0]	-
	169	12.9 [11.2, 14.9]	
Primary Role/Setting	-	-	44 (3.4)
Administrator	50	3.8 [2.9, 5.0]	-
School Psychologist practitioner	1,073	82.0 [79.9, 84.0]	-
State department of education employee	4	0.3 [0.1, 0.8]	-
University faculty	63	4.8 [3.8, 6.1]	-
Other	74	5.6 [4.5, 7.0]	-

Note. Missing percent is based on total *n* = 1,308, confidence intervals were calculated using observed *n* via the Wilson approach in DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0).

General Demographics

Participant ages ranged from 25 to 86 years ($m = 43.9$, $SD = 11.9$, $mdn = 43$). Although data from previous surveys have suggested a “graying of the profession” (Curtis et al., 2003, p. 417), more recent data from 2015 (Walcott & Hyson, 2018) and the current survey suggest that the average age of school psychologists has decreased in recent years (see Figure 1). Further, 87.5% of participants reported no disability, 12.3% with a disability, and 0.2% not providing a response.

In regard to gender, the majority of participants reported being female (87%), which is consistent with the 2015 survey results. In 2015, the category “agender” was endorsed by less than 1% of the respondents. In 2020, the

NASP Research Committee removed “agender” and added “nonbinary” (.01%) and the option to self-describe (.02%). Some participants declined to report their gender (.03%).

Table 3. Demographic Information for Full-Time School-Based School Psychologists (n = 936)

	Mean (SD)	Range	n (%) Missing
Age	42.7 (11.4) [95%CI 42, 43]	25 to 79	0
	<i>n</i>	% [95% CI] ^a	<i>n</i> (%) Missing
Ethnicity	-	-	0 (0%)
Arab, Middle eastern, or North African	7	0.7 [< 0.1, 4.9]	-
Hispanic or Latinx	77	7.7 [3.9, 14.6]	-
Prefer to self-describe	67	6.7 [3.2, 13.4]	-
Prefer not to answer	44	4.4 [1.8, 10.4]	-
Race	-	-	0
American Indian or Alaskan Native	7	0.7 [< 0.1, 5.0]	-
Asian	24	2.4 [0.7, 7.6]	-
Black or African American	39	3.9 [1.5, 9.7]	-
Native Hawaiian or Other Pacific Islander	1	0.1 [<0.1, 3.9]	-
White	851	85.7 [77.6, 91.3]	-
More than one race	27	2.7 [0.9, 8.0]	-
Prefer to self-describe	18	1.8 [0.4, 6.7]	-
Prefer not to answer	26	2.6 [0.8, 7.9]	-
Gender	-	-	0
Female	869	87.5 [79.6, 92.6]	-
Male	118	11.9 [6.9, 19.7]	-
Non-binary	1	0.1 [< 0.1, 3.9]	-
Prefer to self-describe	2	0.2 [< 0.1, 4.1]	-
Prefer not to answer	3	0.3 [< 0.1, 4.3]	-
Disability Status	-	-	0
Yes	56	5.6 [2.5, 12.0]	-
No	924	93.1[86.4, 96.7]	-
Prefer not to answer	13	1.3 [0.3, 5.9]	-

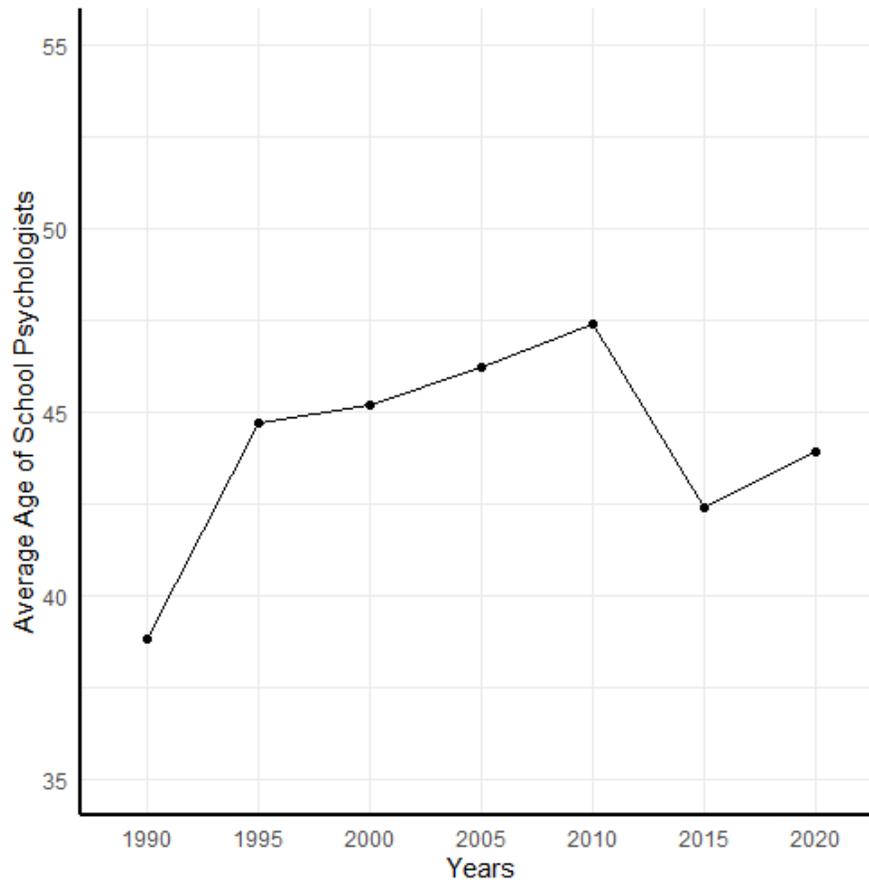
Note. Missing percent is based on total *n* = 993. No exclusions have been made for outliers in this table. Confidence intervals were calculated using the Wilson approach in DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0).

Table 4. Professional Characteristics for Full-Time School-Based School Psychologists (n = 993)

	Mean (SD)	Range	n (%) Missing
Years of Experience	12.4 (9.57) [95% CI 12, 13]	0 to 52	0
Ratio	1,233 (1,285) [CI 1144, 1322]	0 to 16,667	192 (19%)
	n	% [95% CI] ^b	n (%) Missing
Highest Degree in School Psychology	-	-	0
Master’s level only	93	9.4 [5.1, 17.0]	-
Specialist level	736	73.6 [64.7, 82.0]	-
Doctoral level	164	16.5 [10.5, 25]	-
Credentials	-	-	46 (4.6%)
American Board of Professional Psychology	1	0.1 [< 0.1, 0.5]	-
American Board of School Neuropsychology	19	1.9 [1.2, 3.0]	-
Board Certified Behavior Analyst	12	1.2 [0.6, 2.1]	-
Licensed Professional Counselor	24	2.4 [1.6, 3.6]	-
Licensed Psychologist	97	9.8 [8.0, 12.0]	-
Nationally Certified School Psychologist	652	65.7 [63.0, 73.0]	-
State Department of Education Teaching Credential	947	95.4 [94.0, 97.0]	-
130	13.1 [11.0, 15.0]	-	
Setting	-	-	87 (8.8%)
Frontier	1	0.1 [<0.1, 0.5]	-
Rural	188	20.8 [17.0, 22.3]	-
Suburban	475	52.4 [49.0, 55.9]	-
Urban	224	24.7 [21.1, 28.2]	-
Contract Length	-	-	87 (8.8%)
10-month/Approximately 180–190 days	587	64.8 [61.7, 68.0]	-
11-month/Approximately 191–200 days	214	23.6 [20.5, 27.0]	-
12-month/greater than 200 days	105	11.6 [8.5, 15.0]	-

Note. No exclusions have been made for outliers in this table. Missing percent is based on total n = 993. b, confidence intervals were calculated using observed n via the Wilson approach in DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0).

Figure 1. Average Age of School Psychologists Between 1990 and 2020



Regarding language, 92% of participants indicated that they were monolingual. Of those who responded, 161 (12%) of participants reported that they provided services in a second language, and they identified 24 different languages. Given that the race and ethnicity of school psychologists who completed the survey did not change significantly from the previous survey, it is consistent that the percent of school psychologists who reported providing services in a second language also remained about the same; 7% reported second language services in 2020 compared to 8% in 2015. The most common languages reported include American Sign Language, French, Italian, and Spanish.

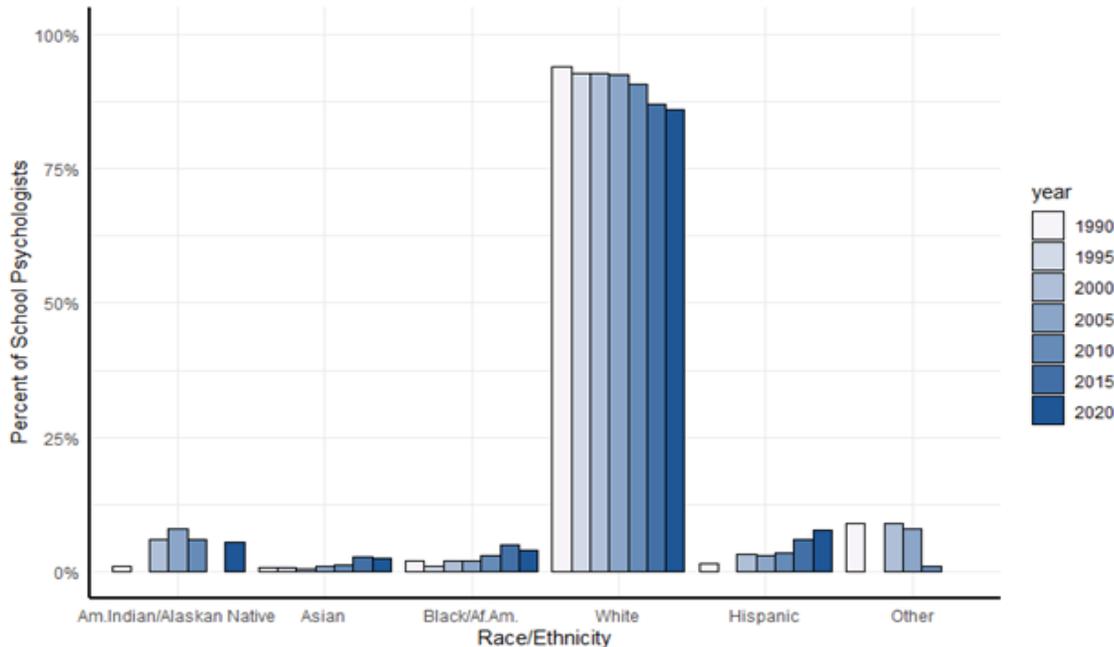
Race and Ethnicity

Among school psychologists in the sample, 86% were White or Caucasian, 4% Black or African American, 3% Asian, 1% American Indian/Alaska Native, 3% identified as having more than one race, and 3% reported no answer (see Table 1). About 1% of respondents reported being of Arab, Middle Eastern, or North African (AMENA) origin, whereas about 7.6% reported being of Hispanic or Latinx origin, an increase from 6% in 2015.

Race and ethnic categories have varied across membership surveys; thus, trend data are not complete. Nonetheless, as shown in Figure 2, there appears to have been an increase in the number of school psychologists who identify as Hispanic or Latinx, but a slight decrease in the number of school psychologists who identify as Asian and Black/African American. The steep decrease observed in the Other category may be partially due to other options available on the 2020 survey. Further, there was a slight downward trend in the number of school psychologists who identified as White over the past few iterations of the membership survey. Overall, the

difference in percentages between the 2015 and 2020 NASP Membership Survey were between 0.1% and 1.0%. The trend in reported race/ethnicity data are more stable compared to the trends observed in the past decade; however, the proportion of non-White school psychologists continued to increase, from approximately 6% in 1990 to 7% in 2015, and 8% in 2020; the majority of this change has been observed since 2010.

Figure 2. Race/Ethnicity of School Psychologists Between 1990 and 2020



Note. Race/ethnicity data are presented for those categories in which data are available.

Other Workforce Characteristics

On average, most participants had a specialist degree, 21.9% had a doctoral degree, and 8.5% had a master’s degree (see Table 2). These results are consistent with recent years and standard credentialing criteria (NASP, 2020b), where the majority of respondents (67% of the full sample and 73.6% of full-time school-based school psychology practitioners) reported holding a specialist degree (e.g., Educational Specialist) or equivalent (e.g., master’s degree plus 30) as their highest degree. Meanwhile, approximately 9% reported holding a master’s degree only, while 22% reported holding a doctoral degree (e.g., EdD, PhD, PsyD). As seen in Figure 3, there was a decreasing trend amongst those who hold a master’s degree only, a relatively stable trend for those who hold a doctoral degree, and a rapidly increasing trend for those who hold a specialist degree.

In regards to other workforce characteristics, the majority of school psychologists had between 5 and 20 years of experience, excluding graduate school and practicum experience, with an average of 13 years ($SD = 10$); these data are presented in Figure 4. Given that experience ranged from 0 (i.e., first year in a full-time position; $n = 46$ [4%]) to 52 years of experience, the observed median of 11 (Interquartile Range²[IQR] = 15, 1st quartile = 5, 2nd quartile = 20) may be a better estimate of centrality in the population.

² Interquartile range is a measure of variability that tells us the range (75th and 25th percentiles) of the middle half of the data.

Figure 3. Trends in School Psychologists' Degrees Between 1990 and 2020

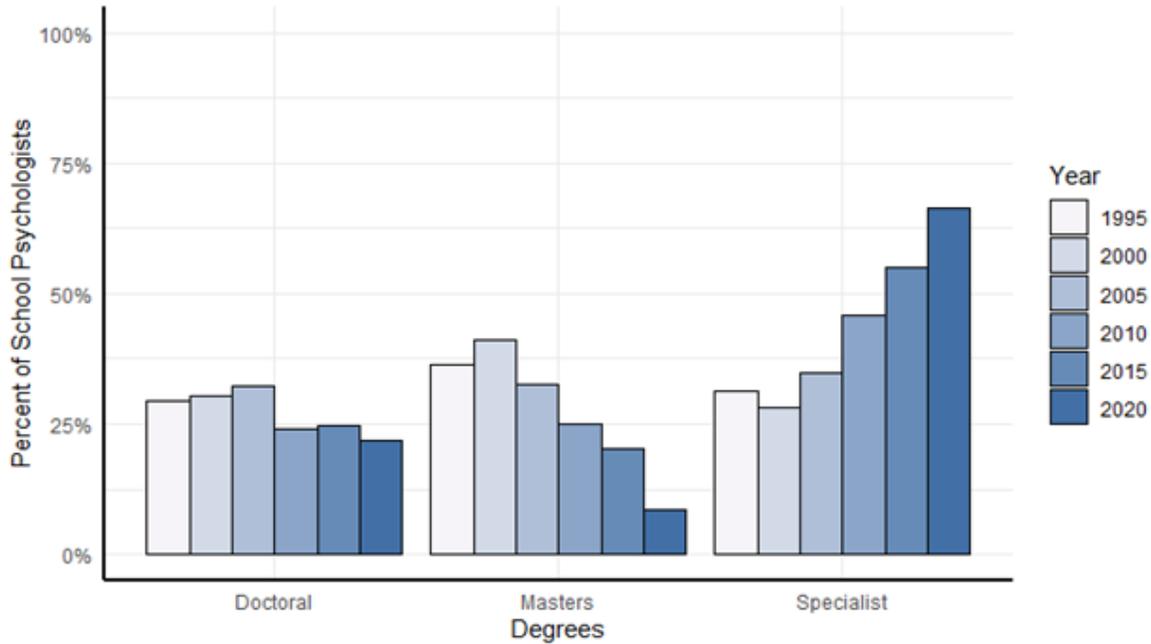
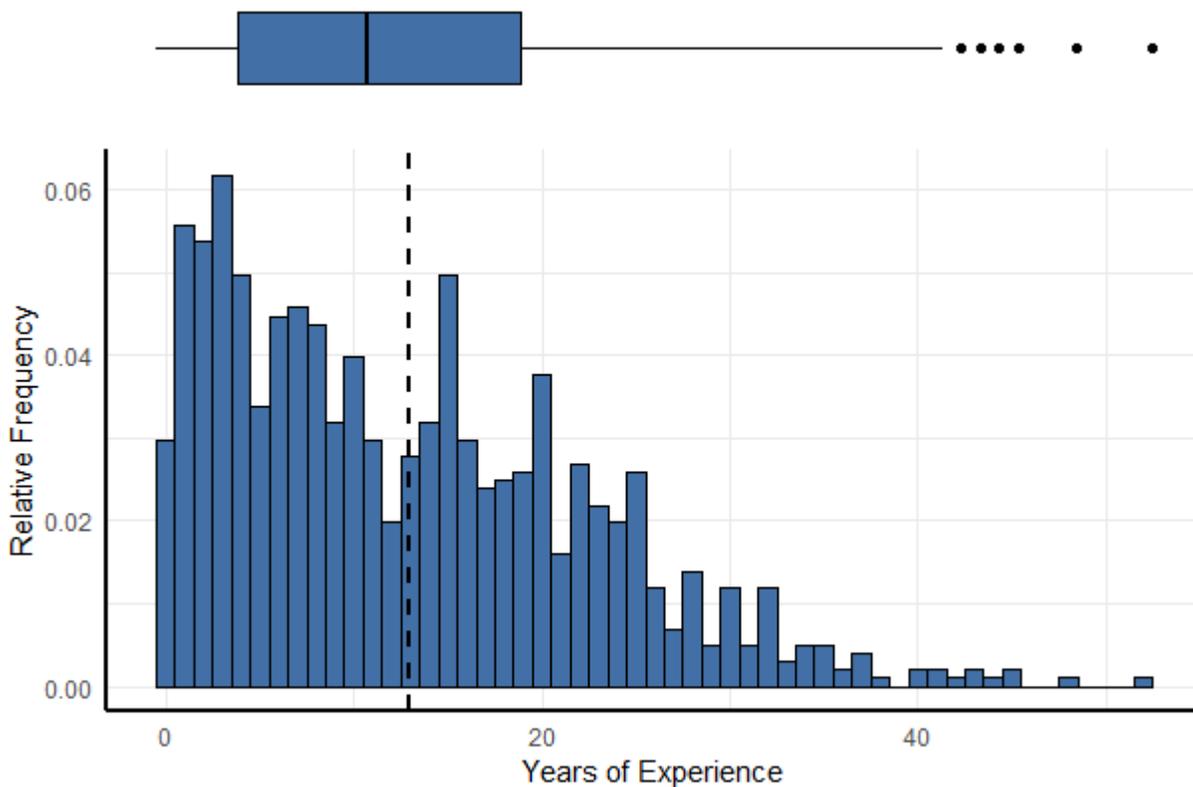


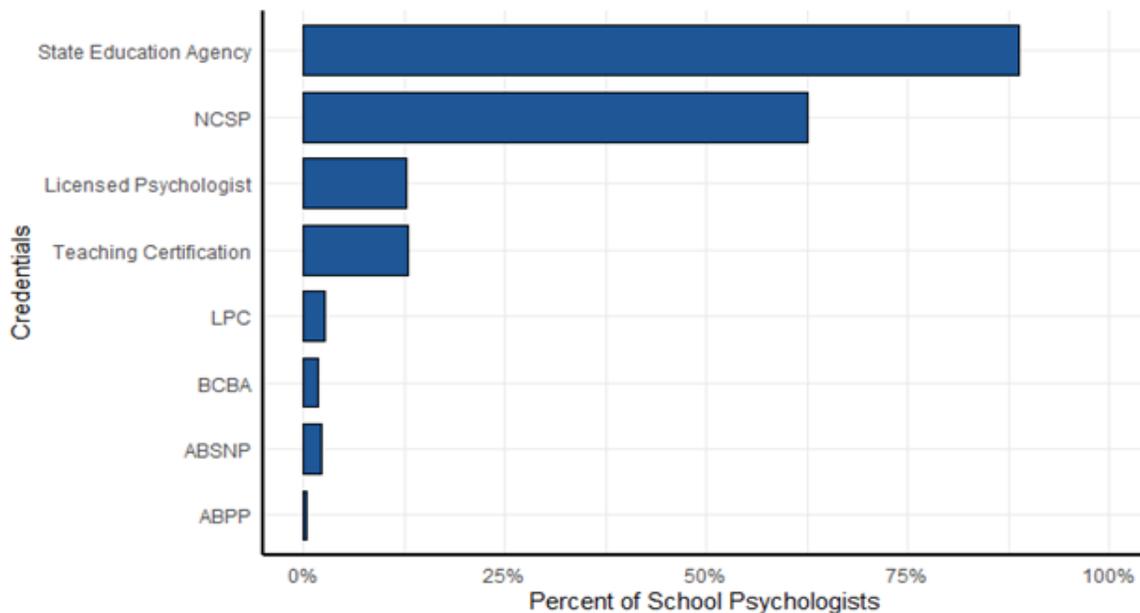
Figure 4. School Psychologists' Years of Experience for 2019–2020 School Year



Note. This box plot represents the distribution of participants' years of experience as a school psychologist. The box plot represents the full range of the data, from the smallest value to the interquartile range (25th percentile, median, 75th percentile), to the largest value. Outliers are represented by dots.

The 89% of school psychologists who reported credential data ($n = 1,308$) held a state education agency certification to practice school psychology. Sixty-three percent of school psychologists reported having the National Certification in School Psychology (NCSP). About 13% of the school psychologists reported being state-board licensed psychologists. Of note, 38% of those individuals with a doctoral degree ($n = 286$) were licensed psychologists. Additional details regarding credentials for the total sample are presented in Figure 5.

Figure 5. School Psychologists Certification and Licensure for 2019–2020 School Year



Salaries

Salaries varied among the school psychologists who completed the survey. As with past membership surveys, it was difficult to compare salaries by state because there were insufficient sample sizes. Participants were grouped according to U.S. Census-defined regions (i.e., states are members of one of four regions: West, Midwest, South, or Northeast). Of the 1,308 total respondents, 1,264 provided information about state residency and salary. As shown in Figure 6, of those participants, the average salary was \$75,667 with a median of \$74,000 ($IQR = \$30,000$, 1st quartile = \$60,000, 3rd quartile = \$90,000). Reported salaries ranged from between \$0 and \$500,000; however, it is unclear whether the outliers were accurate representations of salary of NASP members. To obtain the best population estimates, we removed salaries in excess of 1.5 IQR for further analyses, resulting in 1,088 respondents with salary and state data. Trimming outliers in this way resulted in an average of \$78,054 (95%) for the total sample and an average of \$77,741 (95%) for respondents working full-time in a school setting.

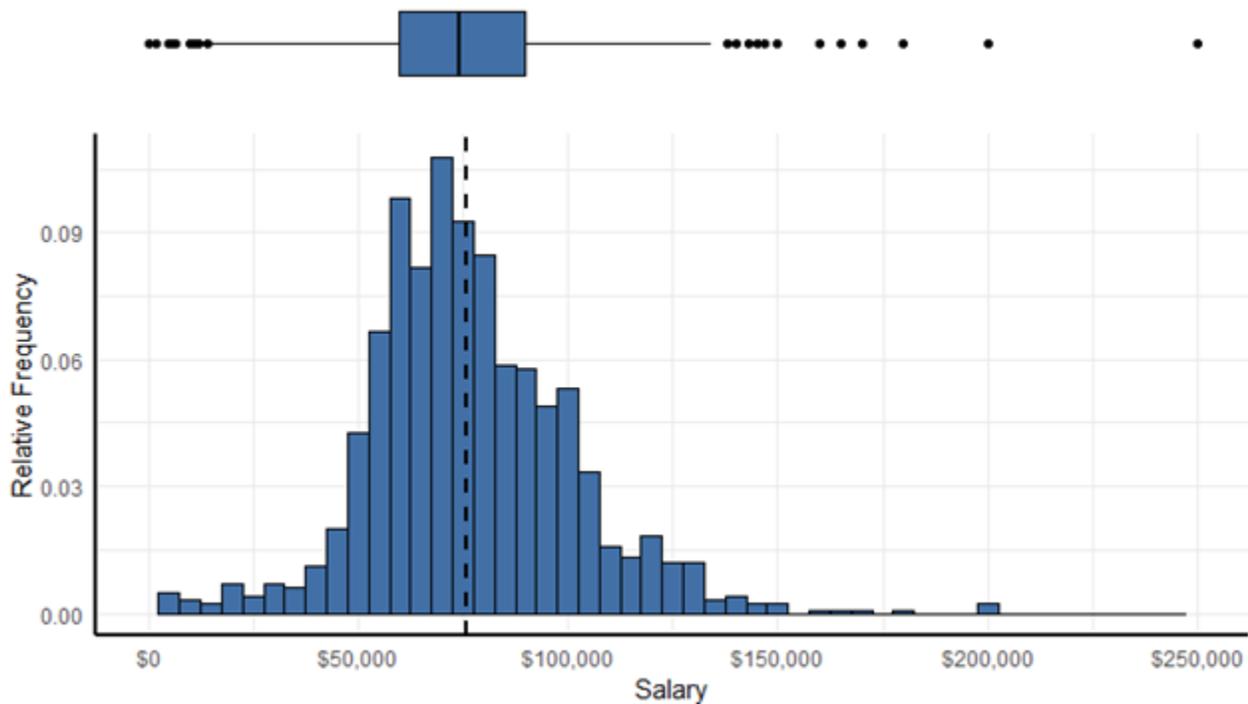
Next, we examined the salaries of school psychologists by region and contract length (see Figures 7 and 8). The proportion of school psychologists that belonged to each of the four primary regions (Midwest, 26%; Northeast, 22.7%; South, 26%; West, 25.3%) were fairly consistent due to our sampling procedure. The average salaries by region were \$74,745, \$82,763, \$71,283, and \$84,198 respectively for the Midwest, Northeast, South, and West.

School Psychologist-to-Student Ratio

One NASP strategic goal is to increase the number of school psychologists to ensure that more students are receiving adequate support in their learning and mental health. Current NASP standards, approved in 2020,

recommend a school psychologist-to-student ratio of 1:500 (NASP, 2020a). In the current survey, school psychologists working full-time in a school district reported ratio data in one of two ways. First, 409 participants

Figure 6. School Psychologists’ Salary for 2019–2020 School Year



Note. This box plot represents the school psychologist’s salaries. The x-axis is limited to \$250,000, which masks one data point of \$500,000. Bins of 200 were used for the histogram. Relative frequency refers to the percentage of total data (proportion of sample-by-bin).

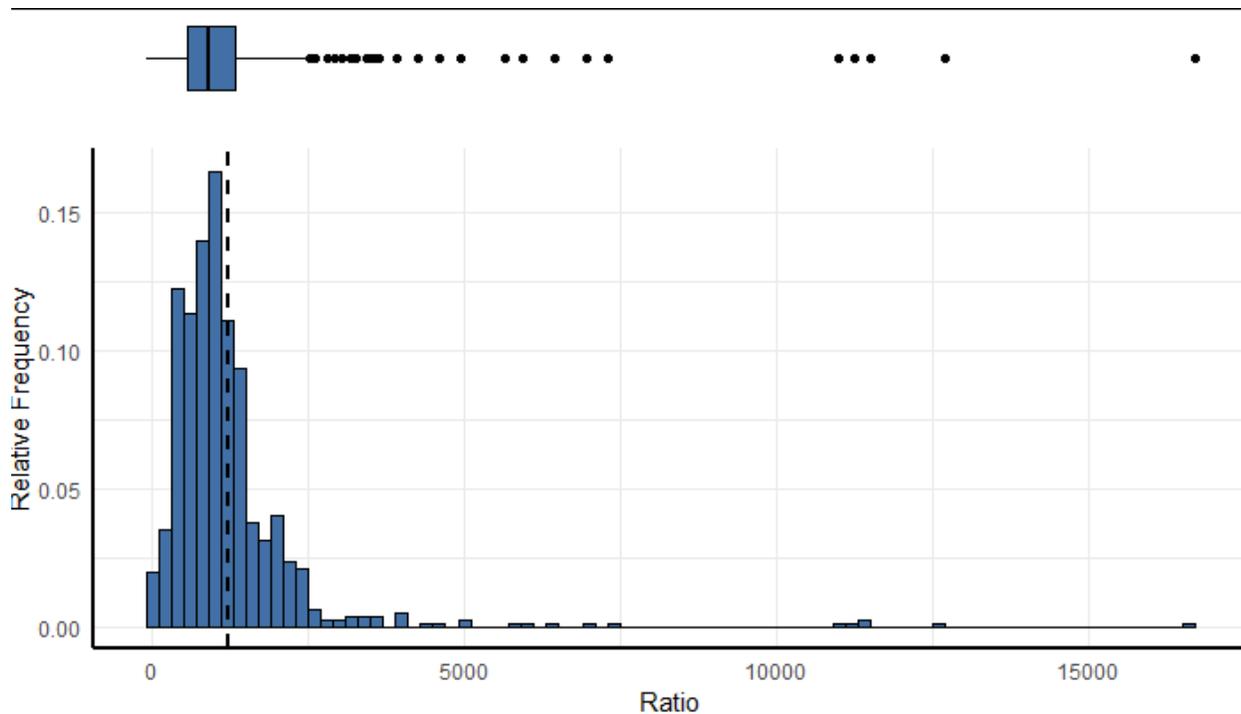
Figure 7. Ridgeline Plot of School Psychologists’ Salary by Region for 2019–2020 School Year



self-reported these data as a ratio, while 392 participants indicated they were uncertain and, instead, reported the total number of students in the district and the number of full-time equivalent (FTE) school psychologists providing services to their district. We thus calculated the ratio as total students divided by FTE school psychologists.

On average for self-reported ratios, the ratio was 1:1,233.37, whereas the average calculated ratio was 1:1,232.77 (see Figure 8). Given there was no statistical difference between these values, $t_{\text{welch}}(750.43)=0.01$, $p = 0.995$, $g_{\text{hedges}}^{\hat{}} = 0.00$ [95% $CI = -0.1, 0.14$], and that there was moderate evidence to believe that these observations were sampled from the same population, $\log(\text{BF}_0)=2.54$ using a default prior, the data were combined.

Figure 8. Histogram and Boxplot of School Psychologist-to-Student Ratio



Note. This box plot represents the ratio of school psychologists to students. Bins of 200 were used for the histogram. The dashed line represents the standard mean (1,233). Outliers are presented for clarity. Relative frequency refers to the percentage of total data (proportion of sample-by-bin).

Thus, the overall average school psychologist-to-student ratio was 1:1,233 (though significant outliers are present in the data). As such, either the median of 1,000 [$IQR = 768$; 1st quartile = 667, 3rd quartile = 1,453] or the 10% trimmed mean of 1,046.40 [95% $CI = 1000.51, 1092.28$]³ is most likely to represent the population average. The arithmetic mean ratio from the current survey is significantly lower than the average mean of 1,381 from the 2015 NASP Membership Survey, $t_{\text{bootstrapped}} = -17.52$, $p < .001$, though the difference is only small-to-medium, $g_{\text{hedges}}^{\hat{}} = -0.12$ [95% $CI = -0.18, -0.05$]⁴.

In order to compare data from the 2020 NASP Membership Survey to surveys administered in past years, the number of school psychologists with ratios below 1,000, below 1,500, above 2,000, and above 3,000 were

³ The confidence interval for the trimmed mean was calculated using the one-group, bootstrap percentile-t method (Wilcox, 2017).

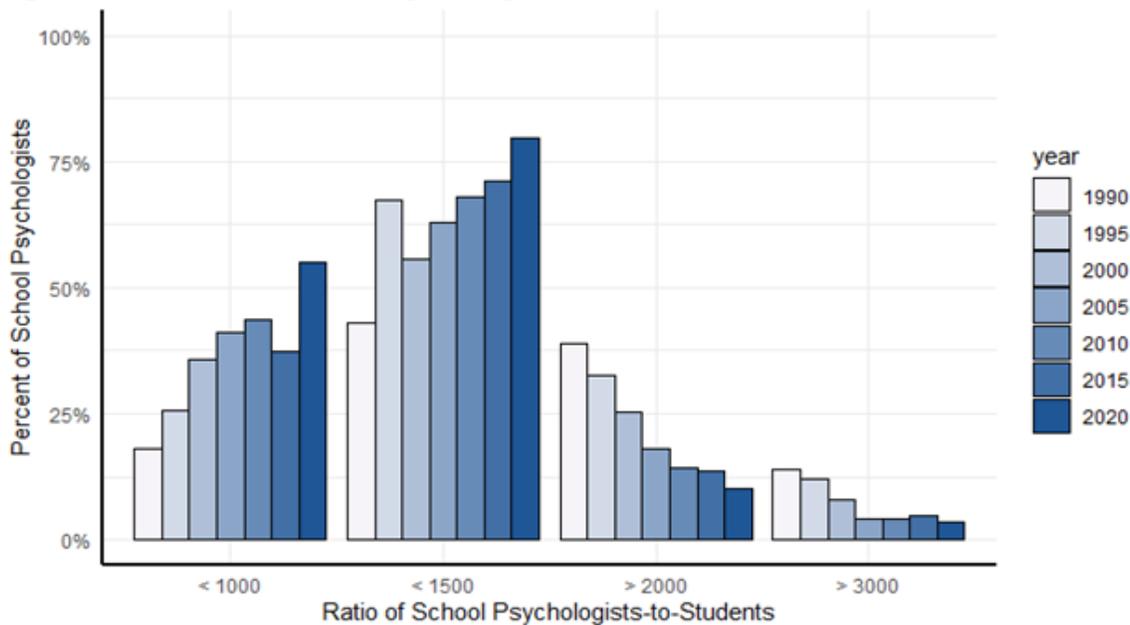
⁴ The arithmetic mean was used in this test despite the trimmed mean likely being a better estimate of the population ratio for two reasons. First, the arithmetic mean was used in 2015 and it was our intent to make as direct a comparison as possible. Second, the arithmetic mean from 2020 was higher, and thus closer to the 2015 arithmetic mean than the trimmed mean from 2020; this provided a more severe inferential test of our question about whether a true difference in ratio was observed.

calculated and plotted by year. These data, presented in Figure 9, depict a clear trend: more school psychologists reported a ratio below 1,000 and 1,500 with each passing year, and fewer school psychologists reported ratios above 2,000 and 3,000.

DISCUSSION AND IMPLICATIONS

The purpose of this report was to highlight the results of the NASP 2020 Membership Survey in order to provide a current picture of the demographics of school psychologists and the employment settings in which they work. Additionally, the purpose of this report is to compare the results of the 2020 survey with findings from surveys in previous years to understand the degree to which the field has changed.

Figure 9. Trends in School Psychologist-to-Student Ratio Between 1990 and 2020



Demographics of the Profession

The results of the membership survey highlight several demographic characteristics of the profession. School psychologists are, on average, 44 years old, White, female, able-bodied, and monolingual. Although the increase in average age subsided in 2015, data from 2020 suggest that average age may once again be increasing slightly. Additional data from future membership surveys are necessary to better understand this trend. Further, approximately 12% of school psychologists reported speaking a second language, which was similar to the previous membership survey results. The most common languages reported include American Sign Language, French, Italian, and Spanish.

Overall, the ethnic and racial diversity of school psychologists in the current survey were similar to results in previous surveys. More than 80% of school psychologists identified as White, suggesting that the field continues to not reflect the diversity of the stakeholders that school psychologists serve, especially given that the student population is predominantly minoritized (Institute of Education Sciences, 2020).

One of the NASP strategic goals is to have a high-quality and diverse school psychology workforce that is available to meet an increasing demand for school psychological services. Although the data suggest that racial/ethnic diversity of the school psychology workforce has increased since the 1990s, continued work is needed to train and retain school psychologists with diverse identities to better reflect the demographics of the students and families

they serve. School psychology training programs must continue to investigate recruitment practices to ensure that they are reaching students who might not already be connected to school psychology through their personal or professional networks.

Simply working to recruit individuals with diverse identities is not enough. Programs must evaluate the ways that equity and diversity are addressed in their courses, program materials, and overall program culture. Although recruitment is one way to help ensure our field reflects the students and families they serve, if new recruits continue to feel marginalized in training programs, they may not choose to stay. Proctor and Owens (2019) suggested that programs wishing to recruit and retain racially and ethnically diverse students must have a commitment to principles of multicultural competence, must connect students to diverse professional networks and diverse mentorship opportunities, and must create an inclusive and affirming program culture. Furthermore, programs should consider infusing a social justice framework into program goals, training, and practice as a part of inclusive and affirming program culture.

The School Psychology Workforce

Another goal of the survey was to understand the current school psychology workforce. Most school psychologists in the survey had a specialist degree, with another 22% holding a doctoral degree, similar to previous results of membership surveys (NASP, 2020b). Overall, the number of school psychologists with a specialist degree has increased over time, while the number of school psychologists with doctoral degrees has remained steady. This trend has implications for increasing the school psychology workforce, and NASP's focus on the creation of additional training programs to address shortages. Growing more or larger training programs requires the field to evaluate accepted ratios of trainers to students in graduate programs and to evaluate availability and quality of supervision of school psychology students in their practicum and internship positions, as well as acknowledging the important role of specialist-level instructors and practicum supervisors in graduate training programs.

In regards to other workforce characteristics, the majority of school psychologists had an average of 13 years of experience, excluding graduate school and practicum experience. Further, most school psychologists indicated working on a 10-month contract and the overall median salary of \$75,000 was significantly higher than \$63,000 in the 2015 survey; however, significant outliers were noted, as were considerable differences based on region. Thus, school psychologists' salaries may vary and are dependent on where they practice. These workforce characteristics are similar to the most recent surveys.

Finally, an important aspect of understanding the school psychology workforce is understanding the number of students that school psychologists serve. Results of the current survey showed that the average ratio of school psychologists-to-students was 1:1,233, a drop from the approximately 1:1,380 found during the 2010 and 2015 surveys (Walcott & Hyson, 2018). Furthermore, using the trimmed mean (likely a more accurate representation of current trends), it appears that school districts are not meeting the NASP updated recommended ratio of 1:500 (NASP, 2020a). This suggests that while progress has been made, we continue to have a significant shortage of school psychologists according to the 2020 NASP Professional Standards.

CONCLUSION AND LIMITATIONS

The NASP membership survey has been, and continues to be, a critical tool to understand the state of the profession. This tool provides a snapshot of school psychologists' demographics, which can help inform the future of the profession. School psychology graduate educators, practitioners, professional associations, and policy makers benefit from this information to make meaningful, positive changes for students, families, and educators.

Nonetheless, there are limitations to conducting surveys, particularly those that are self-reported and retrospective in nature. There is a potential that school psychologists completing the survey may do so in a socially desirable way, and thus caution should be taken in interpreting the data. Additionally, caution should be taken in

generalizing the results of the report to all school psychologists, given that participants completing the survey were NASP members. Further, while the samples in this report and in past reports are thought to be part of the same general population, the samples are different; thus, the results of confirmatory tests should be interpreted with caution. Future investigations may require alternative methodology (e.g., longitudinal data collection), which is outside of the scope and purpose of the NASP membership survey.

Despite limitations, the NASP membership survey functions as a critical benchmark for the profession, informing NASP leadership, school psychology members, and graduate educators of important trends and shortcomings. The data collected and reviewed in this report suggest that the field predominantly has White, able-bodied females, highlighting the need for recruitment and retention of students and school psychologists from minoritized groups. These data also stress that while the ratio experienced by many school psychologists is decreasing, compared to past estimates, it is still woefully higher than recommended (NASP 2020a), which may impede the provision of quality mental health services. Overall, the profession and demographics of school psychology continue to evolve, with the ultimate goal to partner with families, fellow educators, and other professionals to create safe, healthy, and supportive learning environments for all students.

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