The Gender Pay Gap for Behavior Analysis Faculty

Anita Li¹ · Nicole Gravina² · Joshua K. Pritchard³ · Alan Poling¹

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Abstract

We examined publicly available faculty salaries for men and women faculty members at 16 university programs accredited by the Association for Behavior Analysis International (ABAI). Overall, 52.4% of the 103 faculty members were women, although there were twice as many men as women at the full-professor level. Our data suggest that ABAI-accredited training programs pay women less than men at all academic levels. Both in absolute terms and relative to the wage gap reported in other areas of psychology, the difference in mean wages for women and men in our sample was substantial. The mean salaries of men were 13%, 6%, and 15% greater than those of women at the assistant-, associate-, and full-professor levels, respectively. At all levels, the highest salary reported was earned by a man, and the lowest salary was earned by a woman. This is an embarrassment for our discipline. It is time for a change, and we behavior analysts have the tools to make change happen. Let us put those tools to good use.

Keywords Gender issues · Wage gap · Women · Inequity

It is heartening that the field of behavior analysis continues to encourage the participation of women, as demonstrated by a special series in this journal devoted to the topic (Nosik & Grow, 2015), the establishment of the Women in Behavior Analysis conference (WIBA, 2017), and now this special issue on diversity and equity. Surely, there is reason for such support. In general, women faculty members in both the humanities and the sciences typically have higher workloads (Valian, 2005) and fewer opportunities for advancement (Flaherty, 2017) than do men. Overall, women also are paid less than men in similar academic positions (Fox, 1981). For example, a recent article reported that men working in psychology departments were paid on average over \$2,000 more than women at the full and associate levels and over \$600 more than women at the assistant-professor level (Christidis, Lin, & Stamm, 2017). It is not clear whether a similar gender gap in pay exists for women and men who work as academics

in behavior analysis departments because no relevant data have been published.

If behavior analysts are serious about solving problems relating to gender and diversity in their discipline, a necessary first step is quantifying those problems. A substantial gender gap in the pay of women and men who teach in programs accredited by the Association for Behavior Analysis International (ABAI) would, on the face of it, appear to be a cause for concern. At a minimum, it would be cause for investigating the extent to which discrimination against women, a known factor in the gender gap in pay (e.g., Blau & Lawrence, 2000), was at work in the departments of concern. Thus, the purpose of the study was to determine whether the reported pay of faculty members in graduate training programs accredited by ABAI differed according to gender.

Method

We examined the most recent publicly available salary data for faculty members at ABAI-accredited programs. There are currently 22 ABAI-accredited universities at the doctoral or master's level based in the United States, of which 18 are public with posted salary information. Salary databases were found by using the search terms “[university name] faculty salary” or “[state of university] public employee salary database” using

✉ Anita Li
anita.li@wmich.edu

¹ Department of Psychology, Western Michigan University, Kalamazoo, MI 49008, USA

² University of Florida, Gainesville, FL, USA

³ Factari, Lincoln, USA

the Google search engine. The authors recorded the year of salary reported, university name, faculty member, rank, salary, and gender. Two universities did not provide salary information for individual faculty members by name; therefore, it was impossible to analyze data for these universities as a function of rank and gender, and they were excluded.

For each of the 16 universities for which usable data were available, the gender, salary, and rank of each full-time faculty member were recorded. Faculty members were designated as men or women according to their first names as outlined by McSweeney and Swindell (1998). If gender could not be determined on this basis, a Google search was conducted using the person's full name to determine gender from sources such as a university webpage, as described by Li, Curiel, Pritchard, and Poling (2018). Visiting professors and all lecturers were excluded from the data set. Any pay reported above base salary (e.g., overloads or grant pay) was not included in the data. Two people independently scored 15% of the faculty members, selected at random. Interobserver agreement across all categories was 100%.

Results

A total of 103 faculty salaries, for 54 women and 49 men, were obtained and analyzed. Data for 16 faculty members (9 women, 7 men) were obtained for the 2016–2017 academic year, and data for 82 faculty members (42 women, 40 men) were obtained for the 2017–2018 academic year. The only publicly available salary information for one university (with 3 women and 2 men) was from 2014 to 2015, so we used those data. Table 1 depicts the findings for salary means and medians by rank and gender, with data rounded to the nearest whole dollar. Figure 1 depicts the distribution of salaries for women and men across individual accredited program according to rank, and Figure 2 summarizes these data across all programs using a box plot that indicates for each rank the median salaries, ranges, and interquartile ranges.

There were 16 women and 12 men at the rank of assistant professor; their salaries averaged \$67,670 for women and \$78,186 for men. There were 25 women and 11 men at the rank of associate professor; their salaries averaged \$89,315 for women and \$95,281 for men. Finally, there were 13 women

and 26 men at the rank of full professor; their mean salaries were \$107,516 for women and \$126,009 for men. A two-sample *t*-test ($t = -2.78$, $df = 77$) indicated that the difference (\$20,116) in the average salaries of women (\$87,283) and men (\$107,399) across all academic ranks combined was significant at the $p < 0.05$ level ($p = 0.025$). The mean salaries of men were 13%, 6%, and 15% greater than those of women at the assistant-, associate-, and full-professor levels, respectively. At all levels, the highest salary reported was earned by a man, and the lowest salary was earned by a woman.

The differences in median salaries of women and men at the various ranks were somewhat smaller than the differences in mean salaries. The median salaries of men were 3%, 3%, and 17% greater than those of women at the assistant-, associate-, and full-professor levels, respectively. The quantitative difference in findings for means and medians indicates that extreme values (very high salaries for relatively few men, very low salaries for relatively few women) substantially influenced group averages (see Figure 2).

Discussion

At the present time, there are 22 ABAI-accredited universities at the doctoral or master's level based in the United States. We analyzed data for 16 of those institutions, all public, for which usable data were available. Those universities reported salaries for 54 women and 49 men who worked as faculty members in behavior analysis. This is a sizable sample, but it is not clear that conclusions supported by our findings would hold for the behavior analysts employed by the other six ABAI-accredited universities. Moreover, the manner in which we determined gender, although precedented (e.g., Li et al., 2018; McSweeney & Swindell, 1998), is not infallible. Nonetheless, despite the limitations of our findings, they should be a concern for behavior analysts.

Behavior analysts will be pleased to learn that average salaries for faculty members in our sample were substantially higher than salaries reported for academics in various areas of psychology (Christidis et al., 2017). In academia, as in clinical practice (Behavior Analysis Certification Board, 2018), behavior analysis is both a valuable and a lucrative profession.

Table 1 Mean and median salaries of behavior analytic faculty at ABAI-accredited programs by gender

Rank	Gender (# of Faculty)	Mean Salary	Median Salary
Assistant Professor	Women (16)	\$67,670	\$71,712
	Men (12)	\$78,186	\$74,320
Associate Professor	Women (25)	\$89,315	\$87,553
	Men (11)	\$95,281	\$90,767
Professor	Women (13)	\$107,516	\$98,170
	Men (26)	\$126,009	\$118,227

Fig. 1 Scatterplot of salaries of behavior analysis faculty across ABAI-accredited programs. Each data point represents the salary of one faculty member. Open triangles denote female faculty members, and closed circles denote male faculty members

Advocates for women will be heartened to find that, although there were nearly twice as many men as women at the rank of full professor, women outnumbered men at both ranks of assistant professor and associate professor. These data suggest that recent hires in behavior analysis were about as likely, or more likely, to be women as they were to be men, which was not the case several years ago.

Although there were similar numbers of men (12) and women (16) at the level of assistant professor, there were twice as many women as men at the associate level but twice as many men as women at the full-professor rank. It is possible that women at the associate level are not being promoted to the full-professor rank as readily as men, which would be a reason for concern, but our data do not allow us to know whether this is the case. Our data are also inadequate to determine whether years in rank, specialty area within applied behavior analysis, success in securing extramural funds, years required to secure promotion, or other measures of productivity are related to

salary. Another consideration is whether the number of years since receiving a PhD contributed to a faculty member's current pay through scheduled yearly increases. We encourage future researchers to examine these variables, although relevant data are likely to be hard to obtain.

It is unfortunate that the ABAI-accredited training programs that we examined pay women less than men at all academic levels. Both in absolute terms and relative to the wage gap reported in other areas of psychology (Christidis et al., 2017), the difference in mean wages for women and men in our sample is enormous. This state of affairs is a problem for our discipline and should distress all behavior analysts. Women faculty have received unequal and unfair treatment for millennia. It is time for a change.

In 1983, one of us coauthored an early article addressing women's participation in behavior analysis (Poling et al., 1983). The version of the manuscript initially submitted recommended that women should take whatever steps are available, including seeking legal recourse when appropriate, to protect themselves as professionals. That recommendation was nixed by the reviewers. But it was a good one, worth repeating. Women, and the men who support them, who are employed in behavior analysis training programs need to look carefully for discriminatory practices, overt or covert, at work in their departments. They should act quickly and forcefully to eliminate practices that are discriminatory and to strengthen those that ensure the success and well-being of all faculty members. For the good of our discipline, we behavior analysts should support our colleagues, regardless of their gender, gender identity, sexual preference, race, ethnicity, cultural background, or socioeconomic history. These characteristics make individuals unique, but they do not make them good or bad behavior analysts.

Fig. 2 Boxplot of salaries of behavior analysis faculty across ABAI-accredited programs. The bounded vertical lines represent the ranges. The vertical lines within the boxes are the medians, and the horizontal boundaries of boxes represent one interquartile interval above and below the medians

The authors want to leave the reader with a call to action beyond vigilance for overt or subtle discrimination. We believe our data give women faculty in behavior analysis solid evidence of pay inequality, and we hope that they argue forcefully and effectively for equal pay. It bears stating that this burden must not reside solely on the shoulders of women. All members of the faculty need to be arguing forcefully for equal pay.

We also hope that our parent organization, ABAI, will take steps to support their actions. Universities place heavy emphasis on maintaining and obtaining accreditation, so including a metric in the accreditation process that requires demonstration of actively combatting inequity in hiring, pay, and promotion practices should enhance our field. Using such a straightforward strategy might well allow behavior analysts to quickly make our discipline a leader in gender equality. We believe this is a perfect opportunity for the leadership of ABAI to act decisively, given their recent commitment to diversity and respect (Pilgrim et al., 2018).

Author Note Anita Li, Department of Psychology, Western Michigan University; Nicole Gravina, Department of Psychology, University of Florida; Joshua K. Pritchard, Factari; Alan Poling, Department of Psychology, Western Michigan University.

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Compliance with Ethical Standards

Conflict of Interest The authors have no conflicts of interest to declare.

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