STATE
OF THE FIELD

Gender and Racial Equity in Educational Measurement

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Contents

Executive Summary

This report is the result of a collaborative initiative of the American Educational Research Association (AERA), the National Council on Measurement in Education (NCME), and Women in Measurement (WIM) aimed at understanding the current state of gender and racial equity within the educational measurement field. Based on a survey of professionals' experiences and perceptions, the study documents disparities across racial and gender groups and offers recommendations for creating a more diverse, equitable, and inclusive profession.

Key Findings

Employment Disparities: Significant differences were observed in salary and professional rank across gender and racial groups. White men reported higher salary ranges and have the highest proportion of respondents who hold senior-level positions.

Perceptions of Diversity, Equity, and Inclusion: We identified statistically significant differences in how professionals in educational measurement are experiencing the field related to issues of diversity, equity and inclusion. Women of color consistently reported the lowest mean responses on our items related to diversity, equity, inclusion, and discrimination. These differences indicate wide disparities in how our workplaces are experienced by different groups of professionals.

Discrimination in the Workplace: About 12.8% of respondents reported experiencing discrimination within the last 12 months, with women of color being the most affected group. The overwhelming majority of these instances were reportedly unaddressed and caused meaningful negative impacts.

Actionable Insights for Employers: The study offers recommendations for employers, including making public pledges to diversify leadership, conducting pay equity audits, investing in antidiscrimination training, ensuring policy transparency, and regularly gathering feedback from employees.

This study underscores the urgent need for widespread efforts to address the disparities in the educational measurement field. In order to make meaningful change, employers and organizations need to take significant steps toward creating more equitable and inclusive workplaces. The findings in this report serve as a call to action for ongoing commitment and tangible change, emphasizing the importance of understanding and addressing the unique challenges faced by underrepresented groups in educational measurement.

Moving forward, we urge a continued focus on intersectional research to better understand and mitigate the effects of structural biases. We plan to use these data as a baseline to track trends over time and provide a blueprint for other fields to do the same. Future studies should aim to explore additional dimensions of identity, such as sexual orientation and disability status, to ensure a holistic approach to understanding and improving equity in our workplaces.

Introduction

Background

This project had its beginnings in late 2021 in conversations across the leadership of three organizations—Women in Measurement (WIM), the National Council on Measurement in Education (NCME), and the American Educational Research Association (AERA)—all concerned about more fully understanding the structural bias and equities in professional opportunities by gender and race in the education measurement field.[1] The COVID-19 pandemic and what has been termed the dual pandemic of coterminous racist acts of violence, only heightened the relevance of this topic and the shared belief that, as data-driven organizations, we should examine the state of our field. With the substantive enthusiasm and financial support of the governance bodies of all three organizations, this initiative was launched with a development and design phase in 2022 and fieldwork commencing in early 2023.

The focus of the study is on the educational measurement community defined as comprising professionals interested in measurement, statistics, and research design. While the authors of the report constitute the investigators for this project, this effort and the report reflect the collective commitment of AERA, NCME, and WIM.[2]

Study Aims

The aim of the study is to document the state of gender and racial equity in the professional field of educational measurement. This report details key indicators relevant to equity such as employment location, position, and salary. In addition, the report summarizes results related to participants' perceptions of equity at their places of employment. Employee perceptions provide insight into why inequities exist and how we can work toward a more equitable future for educational measurement. The two primary research questions addressed in this study are as follows: (1) Are there differences in factors related to employment (e.g., sector, position, salary) by gender and racial-ethnic intersectional subgroups among those working within the field of educational measurement? (2) How do perceptions of equity of employers vary by intersectional subgroups?

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[1] AERA's scope of interest embraces all areas of science and scholarship within the field of education research. For AERA, collaborating on this project with its focus on educational measurement constituted a first exploration of larger issues of stratification, systemic bias, and equity that merit consideration.

[2] The first author joined the team as research scientist in June 2022 just as the survey design phase of the project was about to commence.

This study identifies and examines the self-reported experiences and perceptions of professionals in the measurement field. Through an intersectional lens, we can compare and contrast the perceptions and experiences of different groups to better understand complex systems of marginalization. We acknowledge that, within the scope of this work, it was not possible to capture all varying social categories potentially vulnerable to biased practices (e.g., social class, sexual orientation, disability status). As such, our decision to focus on the intersections of gender (i.e., men and women) and race (i.e., White and people of color) is a substantial beginning but not an endpoint. The investigation of equity as it pertains to other social identities is indeed deserving of future study.

Research Context

According to the United Nations, the world is hundreds of years from achieving gender equality globally (Pannett, 2023). In the United States, economic participation and opportunity, educational attainment, health and survival, and political empowerment are key dimensions of gender parity, in which we are currently ranked 43rd out of 146 countries (World Economic Forum, 2023). The gender wage gap, or the ratio of women's median earnings compared to the median earnings of men, has been a source of economic research and political controversy for decades. In 2019, more women than ever entered the labor force or continued into managerial and professional occupations (Shaw & Mariano, 2021). Despite accounting for a growing share of the U.S. labor force and increasing their presence in higher-paying jobs traditionally dominated by men, women remain overrepresented in lower-paying service occupations (Barroso & Brown, 2021). According to the U.S. Institute for Women's Policy Research (IWPR), it will take another 39 years until men and women reach economic parity (Hegewisch & Mefferd, 2021).

In the political domain, the wage gap is interpreted by many as a clear indication of overt and hidden barriers like workplace discrimination that stifle women's advancement opportunities, despite codified antidiscrimination policies (e.g., the Equal Employment Opportunity Act, which is supposed to protect against discrimination based on race, gender, religion, or country of origin [42 SEC. 2000ee-2]). According to a 2017 survey by Pew Research Center, about 4 in 10 women reported that they had experienced gender discrimination at work compared to

2 in 10 men (Barroso & Brown, 2021). Some studies report that the percentage of the earnings gap unexplained by measured factors like educational attainment and job type ranges from 20% (O'Neill & O'Neill, 2005) to 41% (Blau & Kahn, 2007). The mounting evidence warrants a closer look at the contextual factors impacting workplace opportunities for women in the workforce.

Differences by Race/Ethnicity

Extant research has shown that the influence of non-competency and non-work-related traits (e.g., gender, race/ethnicity, sexual orientation, disability) on access to workplace opportunities can advantage some while disadvantaging others who are equally or more qualified. Women of color frequently experience compounding patterns of both sexism and racism in the workforce, as well as the unique forces of oppression associated with the intersection of their gender and racial identities. Black and Hispanic women are particularly underrepresented in high-paying fields related to science, technology, engineering, and mathematics (Funk & Parker, 2018; Hegewisch & Mefferd, 2021). When recruited into the workforce, women of color are met with gendered and racialized microaggressions (e.g., Mena & Vaccaro, 2017; Vaccaro, 2017) and higher rates of workplace bias (i.e., bias, prejudice, marginalization, oppression, exclusion) for holding multiple identities (e.g., Rosette & Livingston, 2012), and they experience stereotypes prohibiting advancement into leadership positions (Rosette et al., 2016). These stereotypes are not only harmful but unique to each

intersectional identity group—for example, longstanding portrayals of Black women as domineering and intimidating (e.g., Sewell, 2013), Asian women as docile and passive (e.g., Li, 2014), and Latinas as "fiery" and intellectually inferior (Yosso et al., 2009). The repercussions of discrimination for women of color are distinct from those ascribed to the marginalized category of women in general and White women, specifically. Thus, investigating the impacts of the wage gap necessitates an intersectional approach that acknowledges how women of different racial and ethnic groups face unique obstacles due to their gender and race.

The Intersections of Gender and Race

One of societies' most enduring social problems is how multiple identity markers often compound inequities. "Intersectionality" refers to how social categories, such as gender, race, class, disability, and other identity markers that involve power, permeate one another. One's specific social location in any combination of such categories determines one's societal experience. The original term is credited to American legal scholar Kimberlé Crenshaw (1989) whose work primarily focused on the unique experiences of Black women. Her research has since drawn attention to the complex framing of how discrimination operates in "interlocking systems of inequality" (Hill Collins, 2002) or "configurations of inequalities" (McCall, 2001). As a guiding framework, intersectionality enables us to recognize how perceptions of group membership can make individuals more vulnerable to forms of bias because of their simultaneous membership in various identity groups. The attention to the pervasive barriers faced by intersecting, marginalized groups—especially women of color—

requires an analytical shift from examining multiple independent strands of inequity to a multidimensional overlap in the co-determination of such inequities.

Intersectionality as a framework has expanded to many research areas. For instance, intersectionality prompts public health scholars to conceptualize social inequalities as healthcare inequalities to better facilitate and better inform the development of well-targeted and cost-effective health promotion messages, interventions, and policies for historically marginalized populations (e.g., Bowleg, 2012). In education, it has shed light on how despite having higher expected gains in declaring STEM majors, intersecting gender and racial-ethnic identity groups differ in difficulty orientation, participation, and representation in mathematics-intensive fields (e.g., Nix & Perez-Felkner, 2019). Psychology has also used an intersectional approach to study how stereotype awareness predicts negative mental health outcomes among women of color (e.g., Jerald et al., 2017). In the educational measurement field, the concept of intersectionality has been underutilized with reference to itself (e.g., Russell & Kaplan, 2021). We argue that intersectional research is necessary and critical in advancing solutions and informing policies that better support individuals experiencing multiple forms of marginalization.

Equity Among Educational Measurement Professionals

This is not the first study to examine the demographic composition and diversity of the educational measurement field. Over the past three decades, the measurement community has recognized a shortage of highly trained professionals from historically marginalized groups, including women and non-White racial-ethnic backgrounds (Brennan, 2001;

Patelis et al., 1997; Sireci, 2000). Surveys of programs and employment within the field have reported the demographic makeup of the profession since the 1990s. For example, Brennan and Plake (1991) found that across 108 institutions, approximately a third of all graduate students in educational measurement were foreign nationals. Patelis et al. (1997) later replicated these findings across 60 institutions, noting that the "diversity across ethnic/racial groups among [the] employees is limited, particularly at the doctoral level" (p. 26). According to this study, among students actively enrolled in doctoral programs in educational measurement, the majority were male (56%), and White (67%), and only 5% and 2% were Hispanic and Black (not Hispanic), respectively. The shortfalls of recruitment into the field were most severe for minoritized groups, calling for recommendations for how the community should recruit diverse measurement professionals (e.g., Sireci, 2000; Sireci & Khaliq, 2002).

In 2010, Packman et al. expanded efforts to understand further the makeup of the measurement profession by surveying professionals about their job tasks, compensation, professional activities, and affiliations. Based on surveying 542 measurement professionals, the authors found demographic trends not unlike previous trends in that respondents remained overwhelmingly male (56%) and White (82%). The study was one of the first to break down salary earnings by groups, finding significant disparities by gender. In 2010, Packman et al. reported that the median salary was between $90,000 to $110,000 for men and $70,000 to $90,000 for women. Packman et al. (2010), however, did not find significant differences between White and non-White professionals in compensation after controlling for work experience.

More recently, Leventhal and Thompson (2021) surveyed 411 NCME members and reported changes in the overall composition of the measurement profession since Packman et al.'s survey a decade earlier. Students appeared to be trending more female (70% full-time female students) and more racially/ethnically diverse (64% White) compared to nonstudents or professionals (13% female, 87% White). However, disaggregating by race/ethnicity revealed that Black, Indigenous, and Hispanic/Latinx students were still lagging in numbers (< 5%) compared to Asian American/Pacific Islanders (10%) among those who are employed in the field. These findings are similar to those reported by Randall et al. (2021). Leventhal and Thompson still, however, noted a 25% increase in Asian representation and that Black, Hispanic, and Indigenous professionals had grown to nearly 10% of the respondents.

Addressing the Gaps

Prior research over the past 30 years is useful in mapping trends and the current composition of the measurement field regarding demographics, compensation, and graduate recruitment. However, these studies are limited in several ways. First, they assume traditional conceptualizations of identity, and groups are examined in the aggregate: specifically, looking at graduate training and compensation strictly by gender (e.g., men vs. women) and di- and trichotomized racial-ethnic groups (e.g., Asian, Black, Hispanic/Latinx, White). This assumption has methodological and theoretical implications because it often assumes that identity groups are discrete and ignores how individuals occupy and experience multiple dimensions of identity simultaneously (Choo & Ferree, 2010; Cole, 2009). In other words, these early articulations of diversity cannot account for the experiences of groups holding multiple

disadvantaged categories. The second limitation is not accounting for employee perceptions of workplace diversity, equity, and inclusion (DEI)—specifically, how race and gender simultaneously operate in the workplace regarding employer benefits, support, and advancement opportunities (Rosette et al., 2018). These limitations contribute to a lack of recognition that workplace inequalities can result from multiple, intersecting systemic forces of inequity.

Methods

Survey Instrument

The survey was developed through a systematic and iterative process involving multiple drafting and revision phases (American Educational Research Association et al., 2022).

Development

To identify existing literature and survey instruments, we conducted a short literature review of the online library databases: Education Resources Information Center (ERIC), PsycInfo, Education Full Text, and ProQuest Dissertations & Theses. Our search terms included: "education," "measurement," "workplace," "compensation," "gender," "race," and "survey." Articles citing key references (i.e., "pearl growing"; Petticrew & Roberts, 2006) were also examined to widen the search. We included peer-reviewed empirical research articles from recognized journals in the educational measurement field (e.g., *Educational Measurement: Issues and Practice*) and excluded essays, commentaries, and briefs about the current status of work parity. Through these inclusion criteria, we identified four relevant articles (Leventhal and Thompson, 2021; Packman et al., 2010; Patelis et al., 1997; Sireci & Khaliq, 2002).

In the development phase, we reviewed the thematic approaches of the four relevant articles, particularly questions concerning the employment sector, positions, educational and professional training, and salary (e.g., Leventhal & Thompson, 2021; Packman et al., 2010). In addition to these measurement-specific sections, we drew from national surveys relevant to degree attainment and employment in higher education conducted by the National Science Foundation (NSF), the National Institutes of Health (NIH), and AERA. These sources guided our development of individual demographics, work experiences, and career paths of individuals in the years following the completion of their postsecondary degrees. For developing the questions related to workplace equity, we explored resources (e.g., published reports and surveys) provided by the Society for Human Resource Management, the Human Rights Campaign, and IWPR.

Once we drafted the survey items, we sought feedback from 10 measurement professionals diverse in gender identity, race/ethnicity, and employment experiences (e.g., sector, years of experience, and measurement skill sets). The 10 content experts provided feedback that contributed to multiple iterations of item revision, removal, and addition, where appropriate.

Survey Structure

Throughout the survey, participants were reminded that they could skip or exit the survey at any time. We also allowed participants to write responses when the predetermined answer options did not reflect their experiences. The demographic questions asked respondents about their identity.

For example, we included gender identity,[3] age, race, ethnicity, sexual orientation, generation status, disability status, relationship status, and number of dependents. For the educational background questions, we drew from large-scale surveys, including the National Science Foundation Survey of Earned Doctorates, the National Survey of College Graduates, and the National Study of Postsecondary Faculty, for questions about respondents' educational background (e.g., program of study, financial resources). Two of the most recent publications (Packman et al., 2010 and Leventhal & Thompson, 2021) also provided a foundation for items specific to the measurement field (e.g., job sectors/titles and work settings).

Employment

The employment-related questions asked participants to base their responses on their current primary employment sector (e.g., Academic, Research/Testing Organization, Government, and others) in the last 12 months. The survey questions branched from that point. Each sector included unique positions commonly reported in the Packman et al. (2010) study. For instance, if respondents selected "Academic or Educational," the survey asked them to define their position with options such as Professor, Graduate Student, or Instructor; for the "Research/Testing Organization" sector, the options were Research Scientist, Psychometrician, or Program Manager; and so forth for the Governmental Agency, and Independent Practice sectors. Respondents were also asked to report how long they had served in their current position, experience level, and annual salary band.

In addition, we asked about the decision-making process to accept the position at their current employment (e.g., how they heard about it, factors considered while deciding employment, and what benefits are included with the position). These questions were borrowed from existing surveys, including the Early Career Doctorates Survey (National Science Foundation, 2017) and the 2021 National Survey of College Graduates (U.S. Census Bureau & U.S. Department of Commerce, 2022). We also asked respondents to report any professional services or activities they participated in during their current and primary employment.

Workplace Diversity, Equity, Inclusion, and Antidiscrimination. One of the unique contributions of this research was that we explored questions that characterized employer perceptions of workplace diversity, equity, and inclusion (DEI) and experiences with workplace discrimination. We drew from related disciplines of social psychology, industrial organization, and management for questions about the perceptions of workplace DEI. Since surveys related to DEI are often unique to disciplines and employment settings, no best instrument exists. Thus, we adopted an exploratory approach by modifying items from existing and related scales. For instance, we drew inspiration from the Perceived Group Inclusion Scale (Jansen et al., 2014), the Organizational Cultural Intelligence Scale (Lima et al., 2016), the Workplace Social Inclusion Scale (Pearce & Randel, 2004), and the Employee Commitment Questionnaire (Janse van Rensburg & Roodt, 2005). Respondents were asked to report their level of agreement to statements that speak to broad definitions of diversity, equity, and inclusion using a 7-point Likert rating scale

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[3] After the survey was released, it was pointed out to our research team that we had failed to include "Nonbinary" as one of our 9 gender identity options, including a "Not listed" option to write in a gender identity. We regret this oversight and report that fewer than 1% of respondents used the "Not listed" option.

(i.e., 0 = *Unsure*, 1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neither disagree nor agree*, 4 = *Agree*, 5 = *Strongly agree*).

We provided broad definitions of each section to anchor their interpretation of the statements. For instance, we defined "diversity" as "the qualities and elements that are unique to an individual (e.g., race, ethnicity, gender identity, sexual orientation, disability)." A survey item within this section reads, "The leadership at my workplace is committed to supporting diversity, as reflected in their statements and actions." Lastly, we asked participants about the degree to which their workplace supports antidiscrimination, and whether they have experienced instances of discrimination, including aspect(s) of the respondent's identity the incident was based on, the outcome, ways in which the incident impacted them, and satisfaction with the handling. At the survey's close, respondents were thanked for their participation and asked if there was anything else they would like to share that the survey did not cover. Finally, we shared additional resources that support workplace DEI, including links to the websites of the Equal Employment Opportunity Commission, the Human Rights Campaign, and the U.S. Department of Labor.

Human Research Protection

Prior to commencing the study, the research methodology and procedures, including issues of consent, confidentiality, privacy protection, and data security, were reviewed by the Institutional Review Board (IRB) at the American Institutes for Research (AIR). The AIR IRB serves as AERA's IRB under a contractual services agreement. The IRB conducted an expedited review of the project in December 2022, and it was approved and determined to be exempt from further human subjects review.

Procedure

The study population for this project were members of the most prominent organizations in educational measurement research to capture the measurement profession's diversity in employment positions in various work sectors. We sought to capture responses from measurement professionals whose work focuses on advancing theory and applications of educational measurement, psychometrics, statistical theory, and mixed- or multiple methodologies applied to education. Undertaken under the auspices of membership organizations, we had access to our members and only included those populations in this first-time survey effort.

Specifically, we surveyed members of the following three major educational measurement organizations: NCME, AERA-Division D: Measurement and Research Methodologies,[4] and Women in Measurement. We invited individuals who were members of one or more of these entities between 2019 and 2022, recognizing that the onset of the global pandemic may have resulted in a drop in memberships across the organizations.

The survey methodology followed Dillman's (2011) Tailored Design Method, which involved a series of email contacts to the participants. To recruit participants, we contacted the three organizations to inform their members about the survey before the launch. The initial email described the purpose of the study, details about how the data would be used, contact information to reach the survey team, and the link to access the survey. The data collection period lasted six weeks (i.e., January 5 through February 10, 2023) and included weekly reminders to complete the survey. Respondents were monitored, and follow-up emails were sent to non-respondents. No incentives were provided to participate.

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[4] In the case of AERA, only Division D (one of 12 AERA divisions) was included as it is dedicated to measurement.

Participants were informed that all responses were voluntary, and were specifically instructed to skip questions that did not pertain to them or for which they had no basis for judgment. Upon exporting the results from the survey platform, all identifying information was removed to maintain confidentiality, and the data were carefully cleaned, including from the open-ended questions. Since respondents could skip any question, sample sizes varied from question to question. Thus, we report sample sizes for contextual information.

Intersectional Groups

This study focused on the intersections of gender and racial-ethnic identity, specifically. We recognize that by only focusing on men and women, we have excluded individuals belonging to the gender expansive group. Our sensitivity analysis examining the impact of including these individuals in our analysis was not significant. That said, we acknowledge that this is a limitation of our study and that further research is needed to examine the experiences of gender expansive individuals in this context. Additional analyses focusing on specific racial-ethnic group differences are warranted in future studies. We also chose to report on the experiences of Black, Indigenous, and people of color (BIPOC) compared to the experience of White individuals – not intentionally as a means of centering Whiteness – but instead, as a practical decision that allowed us to maintain sample sizes and representation of all racial-ethnic groups (e.g., Black, African American, or Caribbean; Hispanic, Latino, or Spanish Origin; Native American or Alaska Native; Native Hawaiian or Pacific Islander).

Analysis

To address Research Question 1 (i.e., are there differences in factors related to employment [e.g., sector, position, salary] by gender and racial-ethnic intersectional subgroups among those working within the field of educational measurement?), we focused primarily on presenting summative trends across intersectional groups, including descriptive trends, frequencies, and crosstabs of categorical variables. Additional analyses explored differences in the distribution of categorical variables (e.g., median salary range) via Pearson chi-square differences tests. We included Cramer's V effect sizes for interpretability of the magnitude of any significant findings.

To address Research Question 2 (i.e., how do perceptions of equity at employers vary by these intersectional subgroups?), we explored trends in differences in the overall- and item-level means across the intersectional groups. Prior to conducting one-way ANOVAs and Tukey HSD post-hoc analyses on the means, data were screened for assumptions of normality, equality of variance, and independence. We also calculated Cohen's d effect sizes to aid in interpreting the mean differences, which are included in the instrument.

Participant responses to the open-ended questions were reviewed and quotations were selected quotes to offer insight into the trends we were seeing in the data.

Results

Respondent Composition

Overall, 1,312 individuals responded to the survey, constituting a response rate of 20% of those invited to take the survey. Of these respondents, 49.0%, 25.9%, and 9.1% were exclusively from AERA-Division D, from NCME, and from WIM, respectively (see Figure 1). The remaining respondents were from two or more organizations with the largest overlap between Division D and NCME (i.e., 11.6%).

Demographics

Respondents' ages ranged from 22 to 87 years old (M = 46.8 years, SD = 13.6). Given this age distribution, as would be expected, the number of years since respondents' highest degree was obtained varied from 0 to 59 years since 2023 (M = 16.5 years, SD = 13.0 years).

The majority of respondents identified as women (60.0%), followed by men (34.1%), and then gender expansive (e.g., non-conforming, agender, transgender; 1.8%); and 4.1% who preferred not to answer. Fewer than 1% identified as another gender identity not listed in the predetermined responses. A majority identified as heterosexual or straight (84.5%), 11.3% identified as LGBTQ+, and 8.9% preferred not to report their sexual orientation. In our sample, 8% percent of respondents identified as having a disability (e.g., physical, behavioral, learning, or sensory).

The racial-ethnic composition of the study sample was 59.5% White, Caucasian, or European; 18.0% Asian or Asian American; 7.8% Black, African American, or Caribbean; 3.6% Hispanic, Latino, or Spanish Origin; less than 1% Native American or Alaska Native;

FIGURE 1 | Percentage of Membership Overlap by Research Organization

NCME 25.9%

11.6%

1.6%

1.8%

AERA-Div D 49.0%

0.8%

WIM 9.1%

N = 7,236 unique emails (510 individuals with multiple emails). AERA-Div D = American Educational Research Association Division D (Measurement and Research Methodologies); NCME = National Council on Measurement in Education; WIM = Women in Measurement.
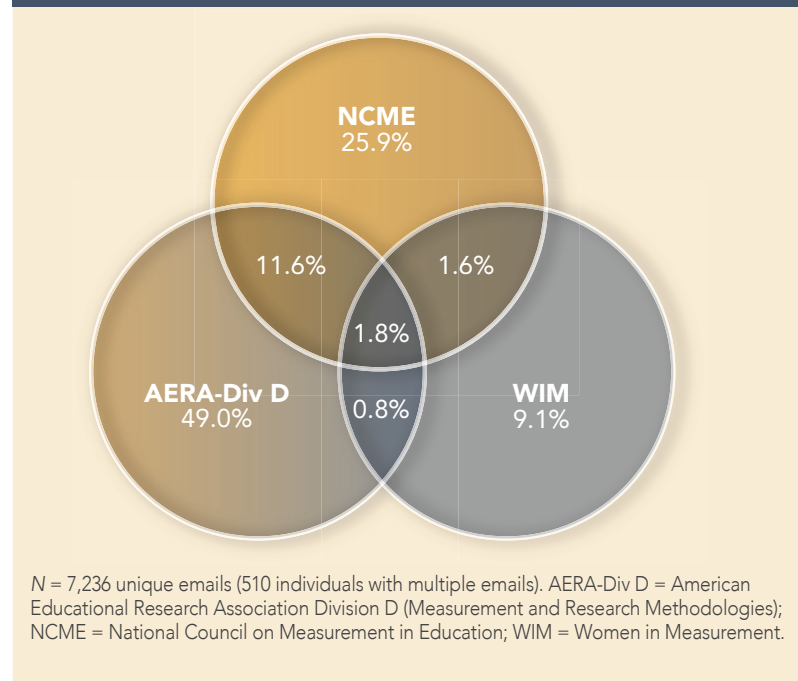
less than 1% Native Hawaiian or Pacific Islander; 4.9% who identified as belonging to two or more racial and ethnic groups; 1.4% who identified to a group not listed in the survey options, for instance, individuals who identified as Middle Eastern or Canadian.

Table 1 presents age data for men and women by racial-ethnic group. The mean age for White men (N = 305, M_{age} = 53 years) was older than for White women (N = 485, M_{age} = 47 years). Similarly men of color were older (N = 152, M_{age} = 45 years) than women of color (N = 317, M_{age} = 41 years). Within all racial-ethnic groups, men are older on average than their women counterparts and with larger standard deviations across all age ranges.

TABLE 1:
Respondents Mean Age by Racial-Ethnic Subgroup

Racial-Ethnic Group	Men (N = 456)		Women (N = 800)	
	%	M_{Age} (SD)	%	M_{Age} (SD)
White, Caucasian, European	24.2	53.2 (15.0)	38.5	47.0 (12.7)
Asian, Asian American	5.4	42.1 (11.7)	13.6	38.7 (9.2)
Black, African American, Caribbean	2.9	45.4 (12.5)	5.2	44.3 (12.0)
Hispanic, Latino/a/x, Spanish Origin	1.3	47.7 (14.3)	2.4	41.2 (10.5)
Native American, Alaskan Native	< 1.0	-	< 1.0	-
Native Hawaiian, Pacific Islander	< 1.0	-	< 1.0	-
Another race or ethnicity	< 1.0	46.7 (15.7)	< 1.0	45.2 (10.4)
Multiple	1.7	51.5 (15.0)	3.2	45.2 (11.6)

Note: M_{Age} = mean age in years; SD = standard deviation; "-" denotes not reported due to low sample size.

Educational Field

Figure 2 displays the data on respondents' educational field. As anticipated, nearly half (43%) of the sample reported educational backgrounds in educational measurement and statistics. The remaining proportions were from related fields, including educational psychology, research, educational leadership, curriculum and instruction, child or human development, and math and science education.

RESEARCH QUESTION 1:
Factors Related to Employment by Groups

Research Question 1 addressed the question, *are there differences in factors related to employment by gender and racial-ethnic intersectional subgroups among those working within the field of educational measurement?* We address this question largely to provide background on the study sample. We also aim to identify by

intersectional subgroups patterns related to employment on the following topics: salary range, work sector, and positions within each work sector.

Differences in Salary Ranges

Overall, the median salary for all employed professionals in 2022 was between $90,000 and $109,999[5] (Figure 3). Results suggested a significant difference in the distribution of annual salaries across work sectors, χ^2 (42) = 231.34, p < .001, Cramer's V = .15. Respondents employed in the academic/educational and self-employed sectors had the lowest median salary range of $90,000 to $109,999, followed by the government sector, which had a median salary range of $110,000 to $129,999. Respondents from research/testing organizations reported the highest median salary range of $130,000 to $149,999.

Results showed a significant difference in the distribution of annual salaries across the intersectional groups, χ (42) = 62.5, p < .05. White men (N = 246) had the highest median

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[5] Because there has been documented ambiguity in how salary is defined across graduate programs (e.g., tuition waiver, stipend, hourly work; Leventhal & Thompson, 2021), we only report the salaries for employed professionals in the educational field (N = 956).

FIGURE 2 | Participants' Major Field(s) of Study (Select All)

Field	Percentage
Educational, Measurement, Statistics	42.7%
Educational Psychology	13.6%
Other	10.7%
Educational Leadership	4.5%
Curriculum	3.9%
Educational Policy	3.0%
Teaching	2.5%
Child or Human Development	2.3%
Language Literacy	1.9%
Math or Science Education	1.8%
Higher Education	1.7%
Quantitative Psychology	1.6%
Educational Evaluation	1.4%
Special Education	1.3%
Industrial Organizational Psychology	1.2%
Social Psychology	1.1%
School Psychology	0.9%
Experimental Psychology	0.8%
Cognition	0.5%
Instructional Technology	0.5%
Applied Linguistics	0.5%
Psychology	0.4%
Workforce Adult Education	0.4%
Social Philosophical	0.4%
Counseling Psychology	0.3%

"Other" fields included Clinical Psychology, Early Childhood Education, Epidemiology and Biostatistics, International Education, Learning Sciences, and Public Policy.

FIGURE 3 | Overall Distribution of Annual Salary in USD

Median Annual Salary range = $90,000 to $109,999
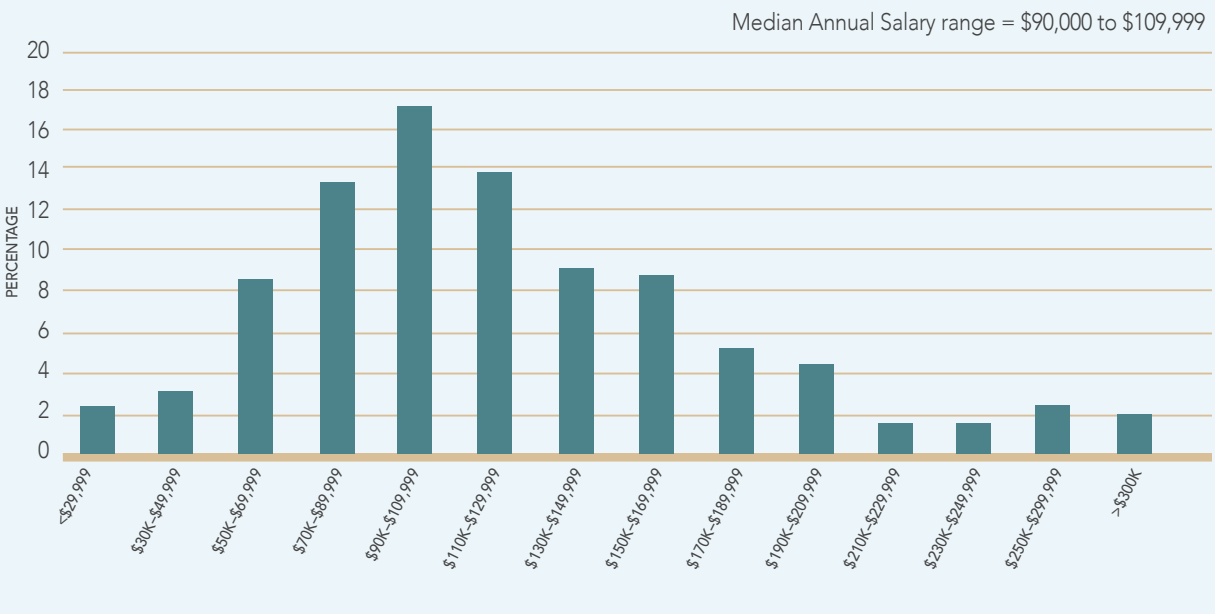
salary range of $130,000–$149,999. Moreover, there was a greater percentage of men making $150,000–$169,999 and $190,000–$209,999. In contrast, White women (*N* = 380), men of color (*N* = 86), and women of color (*N* = 183) had a similar median salary range of $90,000–$109,999. The trend of White men making the highest median annual salary of all intersectional groups was found across all work sectors except for the Government sector (Table 2).

Proportion of Representation in Professional Pathways

We also sought to compare the differences in the representation of intersectional groups among different work sectors. In the following sections, we address the representation of White men, men of color, White women, and women of color across two broad areas of professional career advancement: Academic or Educational Settings and Research or Testing Organizations.

TABLE 2:
Cross-Tabulation of Median Annual Salary Range by Work Sector and Intersectional Group

Work Sector	Intersectional Group			
	White Men	Men of Color	White Women	Women of Color
Academia				
N	105	45	147	79
Median	$110–$129K	$90–$109K	$90–$109K	$90–$109K
Industry				
N	105	29	177	78
Median	$150–$169K	$130–$149K	$130–$149K	$110–$129K
Government				
N	18	8	30	17
Median	$90–$109K	$110–$129K	$110–$129K	$110–$129K
Self-employed				
N	18	3	24	9
Median	$130–$149K	$130–$149K	$90–$109K	$90–$109K

Academic or Educational Settings. Of the total sample, 470 were identified as employed in an academic or educational setting. The data showed 49.1% of respondents working in Research, Scientist, Associate, or Fellow positions, 33.2% in Instructional Faculty positions, 10.0% in Dean, Department Head, or Department Chair positions, 6.0% Adjunct Faculty, fewer than 1% in Visiting Faculty, and fewer than 1% were Dean, Department Head, or Department Chair positions.

Table 3 depicts the cross-tabulation of the intersectional groups across these academic positions. We report the percentage of academic positions within each intersectional

group to control for sample size. For instance, of the men of color who responded (*N* = 61), 49.2% reported employment in research faculty, scientist, associate, or fellow positions; in contrast, of the women of color who responded (*N* = 104), 58.7% reporting employed in this position. The proportion of women of color employed in the most senior positions (i.e., President, Dean, or higher) was the lowest (4.8%) of the intersectional groups. White men had the greatest proportion of employment in the most senior positions (i.e., President, Dean, or higher = 13.8%), followed by men of color (13.1%). White women followed closely by women of color had the highest proportion of Adjunct Faculty positions, at 7.8% and 6.7%, respectively (approximately twice as high as their male counterparts).

Among participants who identified as employed in a faculty position in our sample (*N* = 311), 26.0% were Associate Professors, 24.7% were Assistant Professors, 26.0% were Full Professors, 7.1% were Lecturers, 5.8% were Emeritus Professors, 5.5% were Distinguished Professors, and 4.8% were Instructors. Table 4 details the cross-tabulation of the intersectional groups across professoriate ranks. White men and men of color appeared to have similar proportions in terms of Full Professor rank at 31.9% and 31.7%, respectively, whereas women of color had the smallest proportion of 20.6%. The most senior ranks (i.e., Emeritus, Distinguished or above) had the highest proportion among White men (9.6%), men of color (4.9%), and White women (5.6%); there was no representation of women of color in Emeritus or Distinguished Professor rank in our sample.

Research or Testing Organization. In our sample, 384 respondents indicated they were employed in the Research/Testing Organization sector; 28.4% were Research Scientists, 26.0% were Psychometricians, 16.7% were Executive Director or Directors, and 11.2% were Vice Presidents. Less common positions in this sector were Research Associate or Analyst (5.5%), Program Manager (4.9%), Chief Executive Officer or President (4.2%), and Test Developer or Specialist (3.1%).

TABLE 3: *Cross-Tabulation of Intersectional Group Across Academic Positions*				
	% Intersectional Group			
Position	White Men (*N* = 138)	Men of Color (*N* = 61)	White Women (*N* = 167)	Women of Color (*N* = 104)
Research Faculty, Scientist, Associate, Fellow	42.0	49.2	49.1	58.7
Instructional Faculty	39.1	34.4	31.1	27.9
Visiting Faculty	0.7	0.0	0.6	1.9
Adjunct Faculty	4.3	3.3	7.8	6.7
President, Provost, Chancellor	1.4	0.0	1.2	0.0
Dean, Dept. Head or Chair, or above	12.3	13.1	10.2	4.8
Note: Percentages reflect the proportion of individuals within each intersectional group.				

TABLE 4:
Cross-Tabulation of Intersectional Groups and Professoriate Ranks

Position	% Intersectional Group			
	White Men (*N* = 94)	Men of Color (*N* = 41)	White Women (*N* = 108)	Women of Color (*N* = 68)
Lecturer	3.2	7.3	11.1	5.9
Instructor	5.3	2.4	4.6	5.9
Assistant Professor	13.8	24.4	23.1	42.6
Associate Professor	24.5	26.8	27.8	25.0
Full Professor	31.9	31.7	22.2	20.6
Emeritus Professor	11.7	2.4	5.6	0.0
Distinguished (or above)	9.6	4.9	5.6	0.0

Note: Percentages reflect the proportion of individuals within each intersectional group.

Table 5 summarizes the cross-tabulation of the intersectional groups across these industry positions. The intersectional groups with the largest proportion among the entry-level positions (i.e., Psychometrician) were women of color and men of color at 40.7% and 34.5%, respectively. The Research Scientist position showed relatively similar proportions across all groups (range = 24.7% to 33.6%), as did the Executive Director or Director-level positions (range = 15.0% to 18.0%). However, White men had the highest proportion in the Vice

Table 5:
Cross-Tabulation of Intersectional Groups Across Industry Positions

Position	% Intersectional Group			
	White Men (*N* = 104)	Men of Color (*N* = 29)	White Women (*N* = 167)	Women of Color (*N* = 81)
Test Development Specialist	0.9	3.4	6.0	0.0
Research Associate or Analyst	1.9	6.9	7.2	6.2
Psychometrician	19.6	34.5	21.6	40.7
Research Scientist	33.6	27.6	26.9	24.7
Program Manager	4.7	6.9	6.6	1.2
Executive Director or Director	15.0	17.2	18.0	16.0
Vice President	15.0	3.4	10.8	9.9
CEO or President	9.3	0.0	3.0	1.2

Note: Percentages reflect the proportion of individuals within each intersectional group.

President position (15.0%), followed by White women (10.8%). Similarly, White men had the highest proportion in the CEO or President positions (9.3%), higher than all other groups combined. There was no representation of men of color in this position in our sample.

Research Question 2:
Perceptions of Employer Diversity, Equity, Inclusivity, and Antidiscrimination

To address Research Question 2, we examine respondents overall perceptions of workplace support of diversity, equity, inclusivity, and antidiscrimination. We asked them to respond regarding their current or most recent workplace in the last 12 months.

Figure 4 depicts the overall mean scores for each intersectional group to Likert-type items regarding diversity, equity, inclusivity, and antidiscrimination statements. The graph's axis reflects the mean Likert rating from 1 = *Strongly disagree* to 5 = *Strongly agree*, where moving outwards from the graph's core indicates a higher agreement. As the graph indicates, women of color had the lowest mean rating of agreement with item

FIGURE 4 | Overall Perceived Employer Support of Diversity, Equity, Inclusion, and Antidiscrimination in the Educational Measurement Profession
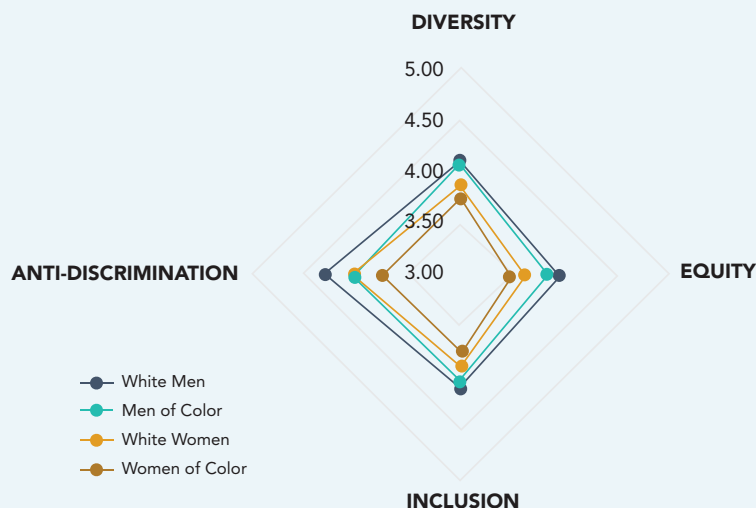
statements in contrast to White men, who reported the highest rates of agreement.

Table 6 presents these same descriptive means for the intersectional groups. In addition, we also report below on the specific Likert items within the Diversity, Equity, Inclusion, and Antidiscrimination Statements.

TABLE 6:
Overall Means for the Diversity, Equity, Inclusion, and Antidiscrimination Statements

	Intersectional Group			
	White Men *M (SD)*	Men of Color *M (SD)*	White Women *M (SD)*	Women of Color *M (SD)*
Diversity	4.12 (0.76)	4.08 (0.79)	3.88 (0.81)	3.75 (0.93)
Equity	3.94 (0.85)	3.84 (0.92)	3.59 (0.92)	3.49 (0.95)
Inclusion	4.07 (0.75)	4.01 (0.82)	3.87 (0.76)	3.74 (0.87)
Antidiscrimination	4.30 (0.64)	4.03 (0.76)	4.02 (0.80)	3.75 (0.79)

Diversity

There were significant differences in mean scores on the diversity statements across the intersectional groups. Table 6 displays the rates of agreement for the Diversity statements, where White men had the highest mean score ($M = 4.12$, $SD = 0.76$), followed by men of color ($M = 4.08$, $SD = 0.79$), White women ($M = 3.88$, $SD = 0.81$), and women of color ($M = 3.75$, $SD = 0.93$). A one-way ANOVA indicated a significant difference in mean scores across the groups, F(3, 1113) = 10.73, $p < .001$, with a small effect size, ω2 = .03. Tukey's HSD multiple comparisons showed that the mean differences were significant across some groups, specifically, White men and White women, $p < .001$; between White women and women of color, $p < .001$; and between men of color and women of color, $p < .001$.

Trends in the Diversity Statements

The heat map in Table 7 depicts trends in the percentage of agreement on the diversity statements across the intersectional groups, where darker colors indicate higher agreement rates. As the table displays, generally there was high agreement on statements about workplace policies, leadership, valuing, and respecting diversity and employee differences (agreement range = 72% to 89%). However, there was less agreement regarding the extent to which the identity backgrounds of leadership were diverse and whether the workplace had done a good job of providing educational materials to promote diversity (agreement range = 44% to 74%).

TABLE 7:
Heat Map Depicting the Percentage of Agreement on the Diversity Statements

Name	Survey item	Intersectional Group			
		White Men	Men of Color	White Women	Women of Color
Policies	My workplace's policies and procedures support a diverse workplace.	88%	87%	82%	79%
Leadership	The leadership at my workplace is committed to supporting diversity, as reflected in their statements and actions.	89%	88%	80%	73%
Education	My workplace has done a good job providing educational materials (e.g., programs, training) that promote diversity.	74%	69%	64%	59%
Values	My workplace values diversity.	87%	86%	84%	74%
Community	My workplace prioritizes and invests time and resources into building a diverse work community.	74%	73%	66%	60%
Backgrounds	The identity backgrounds of leadership at my workplace are diverse.	55%	69%	44%	50%
Respect	My workplace respects individuals and values their differences.	82%	84%	78%	72%

There were significant differences between specific pairwise comparisons across the diversity statements, mostly with small effect sizes though some were moderate (Appendix A). Only one survey item, Backgrounds, showed a significant small effect between men of color and White men, $p < .05$; all other items presented non-significant differences between White men and men of color. For White women, the items Policies, Leadership, Values, Backgrounds, and Respects resulted in significantly small negative effect sizes compared to White men, ranging from -.21 to -.33. White women, compared to men of color, showed a significant negative moderate effect size for the item Backgrounds ($d = -.65$, $p < .001$). Women of color displayed the greatest number of significant differences from the other intersectional groups. Except for the item Backgrounds, all items were significant for differences across women of color and White men with effect sizes ranging from -.35 to -.50, $p < .05$. The items Policies, Leadership, Values, Backgrounds, and Respect were all significant with small to moderate effect sizes between women of color and men of color. Only the item Values was significant across women of color and White women ($d = -.22$, $p < .05$).

Equity

For the Equity statements, a one-way ANOVA indicated significant differences in the mean scores across the intersectional groups, $F(3, 1078) = 13.75$, $p < .001$, with a small effect size, $\omega 2 = .03$. Specifically, White men had the highest means scores ($M = 3.94$, $SD = 0.85$), followed by men of color ($M = 3.84$, $SD = 0.92$), White women ($M = 3.59$, $SD = 0.92$), and women of color ($M = 3.49$, $SD = 0.95$). Post hoc analyses showed that White men had significantly higher equity scores than White women (mean difference = -0.35, $p < .001$) and women of color (mean difference = 0.45, $p < .001$). White women had significantly lower equity mean scores than women of color (mean difference = 0.45, $p < .001$), while men of color had significantly higher means than White women (mean difference = 0.24, $p = .042$) and women of color (mean difference = 0.35, $p = .002$).

Trends in the Equity Statements

A heat map depicts the agreement rate across the groups on the equity statements (Table 8). In general, White men and men of color had similar agreement rates. Similarly, White women and women of color had similar rates of agreement on statements regarding policies, leadership, and education supporting an equitable workplace. However, there was less agreement when women were asked to reflect on workplace equity in compensation, rewards for work performance, and support in the workplace; White women, in particular, had the lowest rates of agreement of any other group on several of these items (agreement range = 35%–69%).

TABLE 8:
Heat Map Depicting the Percentage of Agreement on the Equity Statements

Name	Survey Item	Intersectional Group			
		White Men	Men of Color	White Women	Women of Color
Policies	My workplace's policies and procedures support an equitable workplace.	81%	81%	66%	64%
Leadership	The leadership at my workplace is committed to supporting equity, as reflected in their statements and actions.	83%	82%	68%	67%
Education	My workplace has provided educational materials (e.g., programs, training) that promote equity.	81%	81%	66%	64%
Fairness	The leadership at my workplace treats all employees fairly.	83%	82%	68%	67%
Growth	I am supported in my career growth at my workplace.	67%	69%	61%	57%
Positions	Employees from all identity backgrounds are encouraged to apply for higher positions.	72%	74%	59%	54%
Advancement	Employees from all identity backgrounds have equitable opportunities to advance their careers at my workplace.	75%	76%	69%	69%
Workload	The workload at my workplace is equitably distributed.	75%	69%	61%	58%
Compensation	There are equitable processes for determining compensation at my workplace.	53%	58%	40%	45%
Rewards	Rewards for work performance are equitably distributed at my workplace.	49%	57%	35%	38%
Support	Career support (e.g., mentorship, training) is provided equitably at my workplace.	62%	62%	49%	52%

Appendix B displays the effect sizes and standard errors for pairwise comparisons across equity statements across intersectional groups of the effect sizes reach statistical significance, $p > .05$. There were no statistically significant differences in the responses of White men as compared to men of color on the equity items. In contrast, all items displayed negative effect sizes for White women when compared to men. The items *Policies, Leadership, Education, Fairness, Advancement, Workload, Compensation, Rewards,* and *Support* exhibited significant small to moderate effect sizes compared to White men, ranging from -.31 to -.44, $p < .05$. The items *Fair, Workload, Compensation,* and

Rewards were significant with a small to moderate effect sizes compared to men of color, ranging from -.36 to -.50, $p < .05$. For women of color, the group with the greatest number of differences, all items display negative effect sizes in comparison to men. All items showed significant small to moderate effect sizes compared to White men, ranging from -.34 to -.61, $p < .001$, the largest effect on the statement, "Employees from all identity backgrounds are encouraged to apply for higher positions." Except for the survey items *Education, Growth,* and *Support*, all other items resulted in a significant small to moderate effect between women of color and men of color, ranging from -.32 to -.49, $p < .05$. Only

the item Positions was statistically significant between women of color and White women (d = -.30, p <.01).

Inclusion

There were significant differences in the means of the inclusion scores across the intersectional groups, $F(3, 1054) = 8.90$, $p < .001$, with a small effect size, $\omega^2 = .02$. Similar to the other domains, White men had a significantly higher overall mean than White women (mean difference = 0.20, $p < .001$) and women of color (mean difference = 0.34, $p < .001$). Men of color also had higher means compared to White women (mean difference = 0.20, $p < .001$) and women of color (mean difference = 0.27, $p = .008$). No significant differences were found between White men and men of color, $p = 0.886$.

Trends in the Inclusion Statements

Trends in the heat map (Table 9) showed that, while most respondents agreed that their colleagues respected them (agreement range = 85%–92%), there was less agreement on how inclusivity was applied in the workforce. For example, there was greater variability in how employers provided educational materials to support workplace inclusivity (agreement range = 59%–68%), the extent to which employees felt a sense of belonging (agreement range = 58%–80%), and fostering a space where employees were allowed to be themselves at work without fear (agreement range = 59%–73%).

As with the equity items, there were no significant differences in agreement rates between White men and men of color

TABLE 9: Heat Map Depicting the Percentage of Agreement on the Inclusion Statements		Intersectional Group			
Name	Survey Item	White Men	Men of Color	White Women	Women of Color
Policies	My workplace's policies and procedures support an inclusive workplace.	81%	80%	73%	72%
Leadership	The leadership at my workplace is committed to supporting inclusion, as reflected in their statements and actions.	82%	79%	72%	74%
Education	My workplace has provided educational materials (e.g., programs, training) that promote inclusivity.	68%	66%	59%	62%
Value	My identity and background are valued.	67%	78%	67%	64%
Belong	I feel a sense of belonging.	75%	80%	73%	58%
Respect	My colleagues respect me.	89%	92%	87%	85%
Voice	I have a voice in the decision-making process that affects my work.	78%	78%	72%	65%
Foster	My workplace fosters a space that allows employees to be themselves at work without fear.	73%	71%	65%	59%
Differ	Employees appreciate others whose backgrounds, beliefs,	77%	80%	71%	66%

(Appendix C). For White women, all items resulted in negative effect sizes. The items *Policies, Leadership, Education,* and *Voice* were statistically different from White men and showed small to moderate effect sizes, ranging from -0.25 to -0.27, respectively), $p < .05$. Similar to White women, all items demonstrated negative effect sizes for women of color. Except for *Value*, all other survey items showed significant differences compared to White men with small to moderate negative effect sizes, ranging from -0.29 to -0.43. The items *Value, Belong, Respect, Voice,* and *Differ* resulted in significant differences compared to men of color with small to moderate negative effect sizes, ranging from -0.25 to -0.45. Only one item, *Belong*, showed a statistically significant difference between women of color and White women, with a small negative effect size ($d = -.29$).

Antidiscrimination

The overall ANOVA test showed significant differences in the means of the Antidiscrimination statements across the groups, $F(3, 1039) = 23.03$, $p < .001$, with a small effect size, $\omega2 = .06$. There were significant differences within the same racial groups where White men had higher means compared to White women (mean difference $= .29$, $p < .001$), and men of color compared to women of color (mean difference $= .28$, $p = .004$). At the intersections of race and gender, women of color had the lowest means compared to any other group, but particularly compared to White men (mean difference $= .56$, $p < .001$). In contrast, there were no significant differences between White women and men of color, $p = .998$. However, for the first time, we observed White men having significantly greater means than men of color (mean difference $= .27$, $p = .006$).

Table 10: Heat Map Depicting the Percentage of Agreement on the Antidiscrimination Statements		Intersectional Group			
Name	Survey Item	White Men	Men of Color	White Women	Women of Color
Policies	My workplace has policies or procedures to address workplace discrimination.	89%	85%	85%	74%
Education	My workplace has provided educational materials (e.g., programs, training) that address workplace discrimination.	80%	73%	75%	69%
Tolerate	Discriminatory jokes or slurs are not tolerated at my workplace.	89%	83%	82%	74%
Report	I know and understand the procedures for reporting workplace discrimination incidents.	84%	76%	75%	66%
Action	My workplace will take appropriate action in response to incidents of discrimination.	76%	71%	59%	56%
Discuss	I am comfortable discussing issues of discrimination at my workplace.	73%	76%	60%	51%

Trends in the Antidiscrimination Statements

The heat map (Table 10) shows where some of the largest differences in the percentage of agreement were. White men reported the highest agreement rates, particularly regarding their workplace policies and educational materials supporting antidiscrimination (agreement range = 80%–89%). Notably, women of color consistently had the lowest agreement rate, particularly on statements about reporting, taking action, and discussing workplace discrimination issues (agreement range = 51%–66%).

Appendix D displays antidiscrimination statements' effect sizes and standard errors across intersectional groups. When comparing the item responses of men of color and White men, the item *Policies* had a significant difference with a moderate negative effect size of -0.36. The item *Education* also had a significant difference with a moderate negative effect size of -0.37. For White women, all items showed significant differences in comparison with White men, with small effect sizes, ranging from -0.20 to -0.26. Notably, the items *Action* and *Discuss* showed the largest effect sizes for these pairwise comparisons, -0.34 and -0.35, respectively. There were no significant differences across White women and men of color. In contrast, women of color had the greatest and largest effect sizes of any other group. For instance, all items exhibited significantly moderate effect sizes compared to White men, ranging from -0.56 to -0.64, *p* < .001. Although there were fewer differences between women of color and men of color, all items (except for the survey item *Education*) showed significant differences with small to moderate effect sizes compared to men of color, ranging from -.26 to -.36.

FIGURE 5 | Aspect(s) of Identity the Discriminatory Experience(s) Was Based On

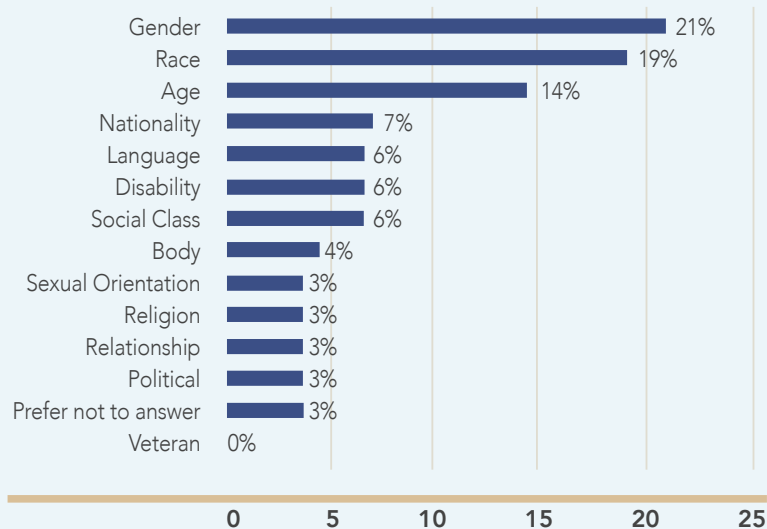| Aspect	Percentage
Gender	21%
Race	19%
Age	14%
Nationality	7%
Language	6%
Disability	6%
Social Class	6%
Body	4%
Sexual Orientation	3%
Religion	3%
Relationship	3%
Political	3%
Prefer not to answer	3%
Veteran	0%

FIGURE 6 | Aspect(s) of Identity the Discriminatory Experience(s) Were Based on Across Intersectional Groups

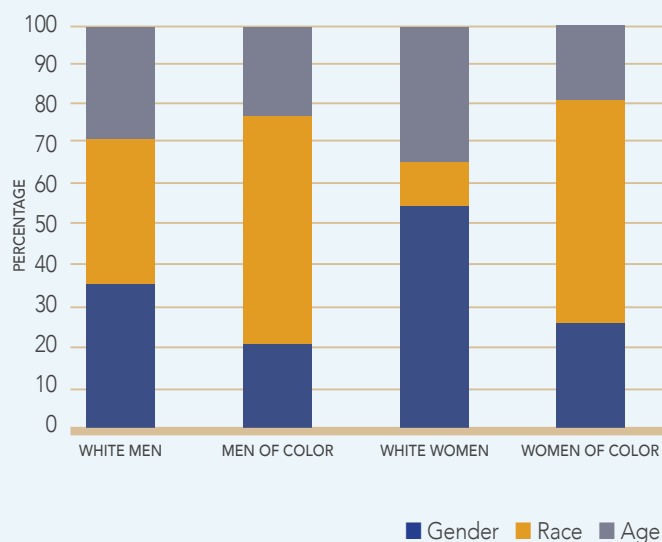FIGURE 7 | Impact of the Discriminatory Experience

FIGURE 7 | Impact of the Discriminatory Experience

Experiences of Workplace Discrimination

When asked if respondents had experienced discrimination within the last 12 months in their workplace based on any aspect of their identity (e.g., race, gender, age, sexual orientation, etc.), 12.8% of the sample replied "yes." The proportion of women of color who reported experiencing discrimination in the workplace was the highest among the groups (14.6%), compared to men of color (12.4%), White women (11.8%), and White men (10.4%). Gender, race, and age were the most endorsed categories based on discrimination experiences (Figure 5). Different patterns were observed across the intersectional groups.

Figure 6 depicts race playing a bigger role in discriminatory experiences for men of color and women of color but less of a role for White women. For White women, discriminatory experiences were based more on gender and age. White men reported experiencing discrimination equally based on race, gender, and age.

Of those who experienced discrimination, only 11% were satisfied or strongly satisfied with the handling of the experience, compared to 50% who were dissatisfied to strongly dissatisfied. The majority of instances of workplace discrimination went unaddressed (63%), while 17% were personally resolved (e.g., confronting the offender), 12% formally filed a complaint, and 9% were resolved through allyship (e.g., someone stepped in). When asked about how the discriminatory experience impacted respondents (Figure 7), the top three responses were (1) feeling uncomfortable voicing their opinion, (2) feeling ostracized or excluded, (3) or seriously considering leaving the workplace. Of those who reported experiencing discrimination, 3% reported leaving their positions.

Discussion

This study sought to capture the lived experiences of measurement professionals in the workplace. Our investigation adopted an intersectional framework to shed light on the nuanced dynamics surrounding employment positions, salaries, perceptions, and experiences of White men, White women, men of color, and women of color. Addressing our primary research questions of *whether disparities pertaining to employment factors exist among gender and racial-ethnic intersectional subgroups within the educational measurement field*, and *how perceptions of equity of employers vary by these intersectional subgroups,* we found that (1) there are significant differences in salary and rank across the intersectional groups, and (2) there are significant differences in perceptions and experiences related to DEI based on gender and racial-ethnic identity. We discuss several notable themes that support our main findings below.

Inequitable Opportunities for Career Advancement

According to the survey results, on average, White men reported salary ranges surpassing the profession's overall median salary range (i.e., $90,000–$109,999) across all sectors. The only exception to this trend was in the government sector, where White men reported earning the lowest median salary range (i.e., $90–$109K). This trend in the data may be attributable to a smaller sample for this sector (i.e., total N = 76). In contrast, men of color, White women, and women of color reported similar median salaries, except in the industry sector, where women of color reported earnings in the lowest salary range.

Overall, the salary trends in this study echo the salary disparities observed in other national studies (e.g., Aragão, 2023; McKinsey & Company, 2022).

When we examined pathways to leadership in academic/educational settings and research or testing organizations, we found that a higher proportion of White men reported being employed in the most senior leadership positions. For example, higher proportions of White men respondents reported holding positions with the title Department Chair, Tenured Professor, and CEO than the other intersectional groups. In contrast, men of color and women of color were more likely to report employment in lower-level positions, such as Assistant Professors (on tenure-track) and entry-level Psychometricians. This trend could suggest that we are witnessing increased diversity in the measurement field as compared to prior studies, but the diversity is not yet reaching the positions with the most privilege, power, and influence. One possible factor is that given the differences in length of time in the field of the different groups, women and men of color are yet to make it to the more senior positions. One participant noted, "Our leadership is strongly over-representative of White men. While I do believe they are taking appropriate steps to materially support women and BIPOC professionals and to promote them to 'partner level,' empirically leadership is not currently diverse." An alternative explanation could be racially influenced limitations in the opportunities for people of color to advance or be promoted into leadership positions. One respondent reflected: "Many of my coworkers are racially diverse, but I do not know how

much willingness to hire people of different races equates to willingness to mentor and promote people of different races."

Part of the reason we may be seeing fewer women and people of color report that they hold the highest-level positions may be the subtle or "unspoken" barriers to career development, specifically when opportunities for promotions are unclear or are only expected for some employees but not all. One woman shared: "Here, you are promoted by who you know, and whether you have a boss that mentors and values you. All roles and levels are benchmarked and leadership seems to focus on keeping salaries fair within a level/role. However, I suspect that to get heard by leadership, you have to be one of a select few they value; I am not sure what those criteria are for that choice." When professional ranks do exist, pathways to career advancement are unclear as remarked by another respondent: "Special levels have been created within my organization that do not have clear promotion rules. These have distinguished titles and 'chairs' and exclusively held by men. However, management lines and other positions with clear lines of advancement (Assessment Specialist 1, Assessment Specialist 2) have more gender equity and in some cases more women."

Differential Perceptions and Experiences Based on the Intersections of Gender and Race

We observed that measurement professionals perceive and experience the workplace differently based on their gender and racial identities. Women of color consistently reported the lowest agreement rates with statements related to all aspects of diversity, equity, inclusivity, and antidiscrimination, whereas White men consistently reported

the highest. Many women shared that they perceive incongruity between DEI rhetoric (i.e., speaking and writing) and actions that support DEI: "They promote it and say it but they don't live it. All of the CEOs at the top educational companies are White men. To have White men always saying, 'We promote and put tons of money in DEI' feels like a PR stunt." In addition to gendered experiences, women of color underscored the prevalence of inequity based on racial experiences with one woman of color remarking, "There's shallow talk of DEI but the systemic barriers are not prioritized because it's uncomfortable. We gravitate towards color-blindness and approaches that value equality over equity."

With the exception of the antidiscrimination section, there were no significant mean differences in the perceptions of DEI between White men and men of color. Regarding discrimination, the men of color reported racialized experiences that they had to adapt to: "Discrimination occurs subtly. It is a topic that is out of place in the daily state of affairs. You only have to talk about something positive and avoid being critical of how the system goes. To be accepted as part of the group, you must always 'get' into the flow." This sentiment might suggest that men of color may downplay negative work experiences to be accepted in the workplace.

That said, the small differences between White men and men of color could also be due to differences in the racial-ethnic composition of survey respondents. We remind readers of the breakdown of the intersectional groups in Table 1, where the proportion of Asian and Asian American men (i.e., 5.4%) was almost twice as large as the proportion of Black, African American, and Caribbean (i.e., 2.9%) and nearly four times greater than that of the Hispanic, Latino/a/x, Spanish group (i.e., 1.3%). By aggregating the racial-ethnic groups to maintain statistical power, we are overlooking

within-group patterns in differences among the men of color group. Similar to the men of color group, the aggregation of Asian and Asian American women (i.e., 13.6%), Black, African American, and Caribbean women (i.e., 5.2%), and Hispanic, Latino/a/x, Spanish women (i.e., 2.4%) for statistical power overlooks the unique experiences felt by each racial-ethnic group.

We excluded "unsure" responses from the analyses of mean scores to maintain the interpretability of the section and survey item scores. Our sensitivity analysis showed that excluding the "unsure" responses had minimal impact on the overall mean trends; however, we note that the percentage of respondents endorsing this response varied from being unsure of 1 item (1.1%) to being unsure of all items (16.4%) in a particular DEI section. We observed that White men and White women had the highest proportions of endorsing the "unsure" response, especially on aspects of equity and antidiscrimination. Some respondents felt ill-equipped to respond knowledgeably: "I've grown more unsure of my confidence in this topic with regard to how others feel as I learn more about DEIB" (a White woman). Another asked, "How would I (or anyone not in management) possibly know the answers to some of these questions? Would many of these items not be anything short of intense speculation?" (a White man).

Lack of Employer Transparency and Tangible Actions

Many survey respondents expressed skepticism about the commitment to diversity, equity, and inclusion (DEI) due to employers' lack of transparency, consistency, and tangible actions: "These topics are important to explore. The reality is that there is a lot of evidence of performative measures and I think it is important to explore action that is taken

to demonstrate the commitment to diversity. We are in an era where generally everyone knows, in theory, what the 'right' thing to say is; however, the actions don't always support those performative measures" (a woman of color). Some professionals remarked on a lack of clear evaluation criteria, biased promotion and compensation systems, and an emphasis on achieving diversity without tangible strategies for supporting and sustaining equity in the workplace: "I believe the institution places more emphasis on trying to achieve diversity rather than implementing intentional strategies to achieve equity. Faculty and staff with minoritized identities take on greater workloads and mentorship than their counterparts and those efforts are not rewarded equitably. If more diverse faculty/staff were both hired and rewarded for the work needed to retain minoritized students, then retention of these individuals would be easier to achieve" (a woman of color). Another respondent shared: "I don't feel appreciated in terms of compensation for my work (devoted hours, student count per class, etc.), but the pressure of evaluation is the same across departments. Some other departments compensate significantly higher than my current placement even if they belong in same college" (a man of color). In some cases, the lack of transparency negatively impacted the dynamic (e.g., trust) between employees and employers: "There are too many silos and a lack of transparency in my workplace that do not lead to a sense of belonging" (a White man).

The quantitative analysis suggests that women of color perceive less transparency in how diversity, equity, inclusivity, and antidiscriminatory policies are carried out than any other intersectional group: "Regarding equity in the workplace, equity does not seem to be addressed to the same degree as diversity, nor is it addressed as transparently. I think this is because diversity is usually

captured in terms of numbers; equity can also be captured in terms of numbers, but also the story behind those numbers is also important (policies, decision-making processes, procedures)" (a woman of color). Several women of color raised concerns about the limited scope of DEI, which often overlooks the experiences of other minoritized groups, beyond gender and race: "When it comes to DEI efforts, there tends to be enormous focus on ethnicity and gender (which is great), but little focus on disability. As someone [with a disability], I have found it difficult to navigate processes dedicated to interviewing candidates for positions. You often hear of grace being extended to those with cultural differences, but when it comes to disability, that grace is not there and social norms are upheld. This is not based solely on my own experience; rather, it is reflective of the experiences within the disability community" (a woman of color).

The Devastating Impact of Discrimination in the Workplace

The survey data documented the prevalence of workplace discrimination, which people of color and women disproportionately experience. Notably, 12.8% of respondents reported facing discrimination within the past twelve months that hindered their ability to thrive in the workplace: "I've experienced a lack of respect from older male colleagues who talk down to me and throw tantrums because they feel I am taking something away from them by taking over pieces of institutional data/statistics work they were never qualified to do. They've always operated doling out tasks based on necessity rather than purposefully, so it is a constant point of tension. My PhD is frequently omitted verbally and in writing when others are provided their titles. At times I feel bullied. It's been very stressful and isolating" (a White woman).

The data suggest that women of color are particularly affected, with 14.6% reporting discrimination, followed by men of color (12.4%), White women (11.8%), and White men (10.4%). The survey data suggest that different intersectional groups experience discrimination differently, with race playing a more significant role for men and women of color, while White women faced discrimination based on gender and age. Of those who reported experiencing workplace discrimination, there was a low (11.0%) satisfaction rate with the outcome. Most instances of discrimination went unaddressed, suggesting a lack of effective mechanisms (e.g., trust, action, accountability) for reporting and responding to workplace discrimination. Only a small percentage of cases were personally resolved through confrontation, while allyship was the lowest and may contribute to feelings of isolation. One participant recalled, "At the micro-level, folks don't always speak up. It is exhausting speaking up over and over. A lot of the time, the person would not consider it to be a sexist comment, but to me, it is. I see the same thing happen with race. The offender is clueless that it was a racial statement."

The impact of workplace discrimination on individuals is profound, as evidenced by the top three responses: feeling uncomfortable voicing their opinion, feeling ostracized or excluded, and seriously considering leaving the workplace. One woman shared, "I feel my organization has put out very tokenistic policies and statements regarding diversity in the workplace, mainly in reaction to the killing of George Floyd in 2020. They have not put any resources behind trainings, workshops, etc., and we constantly see that staff of color leave the organization within 6 months-1 year of joining." While we observed that a low number (3%) of those who experienced discrimination in the past twelve months ultimately left their positions, we believe that

the reports of discrimination and its damaging impacts are real, with potential adverse consequences for organizations as well. (e.g., talent loss).

Our collective findings emphasize the urgent need for organizations to prioritize proactive and accountable measures of handling workplace discrimination, as its consequences not only impede the growth and success of individuals but also result in the potential loss of skill and talent for employers. By fostering inclusive and equitable work environments, organizations can mitigate the negative effects of discrimination and create spaces where all employees can thrive and contribute to their fullest potential.

Limitations of This Study

As the first-of-its-kind survey on workplace equity, we limited our sample to individuals from AERA-Division D, NCME, and WIM. We acknowledge that, while these three major organizations capture a large proportion of educational measurement professionals, they are likely to represent only some of those employed in the field. The current survey did not explicitly include content experts, such as test developers, who are directly involved in measurement practices but may not necessarily be associated with the same research and professional organizations. In addition, nonresponse bias was an unavoidable result of obtaining data from some rather than all members of the sampling frame. Even though the response rate of this study was greater than in previous studies (e.g., Leventhal & Thompson, 2021; Packman et al., 2010; Patelis et al., 1997; Sireci & Khaliq, 2002), a large proportion of the sample did not respond to the survey. Therefore, the study's results only reflect a sample of the field at large.

Another major limitation of this study was the choice to focus on comparing the experiences of White professionals with the experiences of Black, Indigenous, and people of color (BIPOC) professionals. Focusing on the intersections of gender and race was a practical decision to maintain sample sizes given the number of groups and variables we needed to disaggregate to interpret patterns in the data (e.g., employment sector, position, rank, etc.). We would also like to acknowledge that this decision certainly overlooks important within-group differences among any racial-ethnic group and could be interpreted as centering Whiteness. Additional follow-up studies focusing on individual racial/ethnic identities and other factors such as sexual orientation, disability status, and language are warranted to better understand different intersectional identities' unique experiences and challenges.

We also experienced challenges in determining the most appropriate survey questions to address the research questions, given the idiosyncratic nature of employment experiences in the measurement profession. For example, we attempted to understand professional rank by years of experience in the field, by using the number of years since degree conferment as a proxy variable. The results were inconclusive due to small sample sizes, large standard errors, and the non-linear nature of career rank within sectors and by particular institutions within the sector. Additionally, our survey focused more on

traditional employers than on self-employed individuals whose experiences with DEI may extend to clients, partners, and stakeholders. Respondents also found some questions difficult to answer because of the different levels of organizations in which DEI issues can manifest. For example, while individual leaders of business or program units might be taking actionable steps to carry out DEI policies, this might be different at the corporate or institutional level.

It is also worth noting that our study did not control for age or examine age-cohort effects given our small sample sizes across the intersectional groups. We acknowledge that our findings suggest gender or intersectional disparities that may in part be accounted for by more substantial exclusionary, glass-ceiling, or other prevailing discriminatory practices among older age cohorts. For instance, the absence of women and particularly women of color in Chief Executive Officer and President positions in our data might reflect the absence of these groups in the labor market in earlier generations of measurement professionals. We also recognize that interpretations of diversity, equity, inclusivity, and antidiscrimination efforts might have varied across intergenerational cohorts, despite anchoring these constructs within the survey. Thus, intergenerational differences in how DEI policies are interpreted and practiced in the workplace could have contributed to the overall trends across and within the intersectional subgroups of this study.

Future Directions

We highlight several directions for future surveys to enhance our understanding of workplace equity in the field of educational measurement. First, we recommend tailoring questions around specific areas of interest, occupation types, and career sectors. Creating specialized surveys would enable the field to gather more detailed and targeted information, allowing for a deeper understanding of how workplace compensation is determined and DEI policies are outlined and carried out. Additionally, we need to expand our survey efforts to include a specific focus on graduate students that builds upon previous work on recruitment and training in this area. By examining graduate students' experiences, aspirations, and challenges, we can identify key areas for improvement and implement effective strategies to support their development in the educational measurement professional trajectory. To strengthen our commitment to DEI, future directions should explore additional methods that deepen our understanding of such issues. Specifically, conducting in-depth qualitative case studies and focus groups would be valuable to explore the underlying factors contributing to the observed disparities in employment factors, career advancement, and perceptions of diversity, equity, inclusivity, and anti-discrimination. Longitudinal studies could also help us to understand how these patterns evolve and to identify potential factors contributing to positive policy changes or perpetuating inequalities in the field.

Recommendations for Employers

We urge employers to take proactive steps and implement specific recommendations to further support and advance diversity, equity, inclusion, and antidiscrimination efforts in the educational measurement profession. Furthermore, we acknowledge that all employers across all institutional and organizational settings should embrace cultural workplace change and consider the eight actionable recommendations outlined below, to enhance DEI in the workplace.

1. **Make a public pledge to diversify the representation of leadership**. Employers should publicly evaluate, acknowledge, and commit to a plan for increasing diversity representation. A public pledge can signal clear expectations for change, hold employers accountable, and help create a more inclusive work environment where employees from diverse backgrounds feel valued and have equal opportunities for career advancement.

2. **Make immediate salary adjustments to pay equity gaps.** Conduct thorough pay equity audits and make necessary corrections so employers can ensure that their employees are compensated fairly regardless of gender, race, or ethnicity. This strategy helps foster a culture of equity and respect, boosting employee morale, and addresses compensation transparency. It could also help attract and retain top talent from diverse backgrounds, as individuals are more likely to choose organizations that prioritize equitable compensation practices.

3. **Invest in antibias training and support.** Employers should invest in antibias and antidiscrimination training to foster a work culture where employees understand their conscious, subconscious, and unconscious biases. This training, whether internally or externally sourced, can aid individuals in identifying, challenging, and mitigating instances of biases in the workplace. By cultivating a workforce that is aware of and actively works against biases, employers can help reduce the instances of discrimination and promote empathy, cultural sensitivity, and a broader understanding of diverse perspectives, which are essential for creating an inclusive organizational culture.

4. **Clearly communicate policy evaluation and implementation.** Employers should focus on transparently communicating how policies are evaluated and enacted, including providing employees with a clear understanding of the decision-making process and the rationale behind policy changes. By establishing open lines of communication, employers can foster trust and ensure that employees feel informed and included in the decision-making process.

5. **Gather regular feedback through surveys.** To effectively gauge the impact of DEI policies and initiatives, employers should invest in gathering regular feedback from employees. Anonymous surveys can serve as a critical tool for understanding what is working well, identifying areas for improvement, and assessing the overall employee experience. By actively seeking input from employees, employers can identify trends, address concerns, and make informed decisions that support the needs of their workforce.

We encourage employers to take meaningful and actionable steps like the ones suggested above to create inclusive and equitable workplaces in the educational measurement field and beyond.

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Appendix A

APPENDIX A:					
Effect Sizes for Pairwise Comparisons Across Diversity Statements					
Intersectional Group	Survey Item	Intersectional Group			
		White Men	Men of Color	White Women	Women of Color
White Men	Policies	-			
	Leadership	-			
	Education	-			
	Values	-			
	Community	-			
	Backgrounds	-			
	Respects	-			
Men of Color	Policies	-0.03 (0.07)	-		
	Leadership	-0.13 (0.10)	-		
	Education	-0.15 (0.12)	-		
	Values	-0.17 (0.10)	-		
	Community	-0.05 (0.11)	-		
	Backgrounds	-0.38 (0.14)*	-		
	Respects	-0.04 (0.10)	-		
White Women	Policies	-0.22 (0.07)*	-0.19 (0.09)	-	
	Leadership	-0.33 (0.07)***	-0.19 (0.09)	-	
	Education	-0.21 (0.12)	-0.06 (0.11)	-	
	Values	-0.22 (0.07)**	-0.05 (0.09)	-	
	Community	-0.19 (0.08)	-0.13 (0.10)	-	
	Backgrounds	-0.27 (0.10)*	-0.65 (0.13)***	-	
	Respects	-0.21 (0.07)*	-0.17 (0.09)	-	
Women of Color	Policies	-0.37 (0.08)***	-0.34 (0.10)**	-0.15 (0.07)	-
	Leadership	-0.50 (0.08)***	-0.37 (0.10)**	-0.18 (0.08)	-
	Education	-0.36 (0.09)***	-0.21 (0.11)	-0.15 (0.08)	-
	Values	-0.44 (0.07)***	-0.28 (0.10)*	-0.22 (0.07)*	-
	Community	-0.33 (0.08)**	-0.28 (0.11)	-0.14 (0.08)	-
	Backgrounds	-0.16 (0.11)	-0.53 (0.14)***	0.12 (0.10)	-
	Respects	-0.35 (0.08)***	-0.31 (0.10)*	-0.14 (0.07)	-
*Note: * p < .05. ** p < .01. *** p < .001. Standard errors are in parentheses.*					

APPENDIX B: *Effect Sizes for Pairwise Comparisons Across Equity Statements*					
Intersectional Group	**Survey Item**	**Intersectional Group**			
		White Men	**Men of Color**	**White Women**	**Women of Color**
White Men	Policies	-			
	Leadership	-			
	Education	-			
	Fairness	-			
	Growth	-			
	Positions	-			
	Advancement	-			
	Workload	-			
	Compensation	-			
	Rewards	-			
	Support	-			
Men of Color	Policies	-0.16 (0.11)	-		
	Leadership	-0.19 (0.11)	-		
	Education	-0.11 (0.12)	-		
	Fairness	0.01 (0.13)	-		
	Growth	-0.07 (0.12)	-		
	Positions	-0.27 (0.12)	-		
	Advancement	-0.14 (0.12)	-		
	Workload	0.11 (0.14)	-		
	Compensation	0.07 (0.13)	-		
	Rewards	0.17 (0.14)	-		
	Support	-0.16 (0.13)	-		

APPENDIX B: Effect Sizes for Pairwise Comparisons Across Equity Statements (cont.)					
		Intersectional Group			
Intersectional Group	Survey Item	White Men	Men of Color	White Women	Women of Color
White Women	Policies	-0.44 (0.08)***	-0.27 (0.10)	-	
	Leadership	-0.43 (0.08)***	-0.24 (0.10)	-	
	Education	-0.33 (0.08)***	-0.22 (0.11)	-	
	Fairness	-0.35 (0.09)**	-0.36 (0.12)*	-	
	Growth	-0.21 (0.08)	0.13 (0.11)	-	
	Positions	-0.31 (0.08)**	-0.04 (0.11)	-	
	Advancement	-0.36 (0.09)**	-0.22 (0.12)	-	
	Workload	-0.39 (0.10)**	-0.50 (0.13)**		
	Compensation	-0.34 (0.10)*	-0.41 (0.13)*		
	Rewards	-0.32 (0.10)*	-0.49 (0.13)**		
	Support	-0.43 (0.09)***	-0.27 (0.12)		
Women of Color	Policies	-0.49 (0.09)***	-0.32 (0.11)*	-0.05 (0.08)	-
	Leadership	-0.51 (0.09)***	-0.32 (0.11)*	-0.08 (0.08)	-
	Education	-0.39 (0.09)***	-0.28 (0.12)	-0.06 (0.08)	-
	Fairness	-0.44 (0.10)***	-0.45 (0.13)**	-0.09 (0.09)	-
	Growth	-0.34 (0.09)**	-0.27 (0.12)	-0.13 (0.08)	-
	Positions	-0.61 (0.09)***	-0.34 (0.12)*	-0.30 (0.09)**	-
	Advancement	-0.60 (0.10)***	-0.46 (0.13)**	-0.24 (0.09)	-
	Workload	-0.38 (0.11)*	-0.49 (0.14)**	0.01 (0.10)	
	Compensation	-0.39 (0.11)**	-0.45 (0.13)*	-0.05 (0.10)	
	Rewards	-0.34 (0.11)*	-0.52 (0.14)**	-0.02 (0.10)	
	Support	-0.48 (0.10)***	-0.32 (0.13)	-0.05 (0.09)	

*Note: * p < .05. ** p < .01. *** p < .001. Standard errors are in parentheses.*

Appendix C

APPENDIX C: *Effect Sizes on Inclusion Questions Across Intersectional Groups*					
		Intersectional Group			
Intersectional Group	**Survey Item**	**White Men**	**Men of Color**	**White Women**	**Women of Color**
White Men	Policies	-			
	Leadership	-			
	Education	-			
	Value	-			
	Belong	-			
	Respect	-			
	Voice	-			
	Foster	-			
	Differ	-			
Men of Color	Policies	-0.12 (0.10)	-		
	Leadership	-0.25 (0.11)	-		
	Education	-0.15 (0.11)	-		
	Value	0.19 (0.12)	-		
	Belong	0.02 (0.12)	-		
	Respect	0.02 (0.08)	-		
	Voice	-0.08 (0.12)	-		
	Foster	-0.12 (0.12)	-		
	Differ	-0.04 (0.11)	-		
White Women	Policies	-0.25 (0.08)**	-0.13 (0.10)	-	
	Leadership	-0.26 (0.08)**	-0.02 (0.10)	-	
	Education	-0.27 (0.08)*	-0.11 (0.11)	-	
	Value	-0.07 (0.08)	-0.25 (0.11)	-	
	Belong	-0.14 (0.08)	-0.16 (0.11)	-	
	Respect	-0.15 (0.06)	-0.17 (0.08)	-	
	Voice	-0.25 (0.08)*	-0.16 (0.11)	-	
	Foster	-0.21 (0.08)	-0.09 (0.11)	-	
	Differ	-0.19 (0.08)	-0.16 (0.10)	-	

Continued

APPENDIX C: Effect Sizes on Inclusion Questions Across Intersectional Groups (cont.)					
Intersectional Group	Survey Item	Intersectional Group			
		White Men	Men of Color	White Women	Women of Color
Women of Color	Policies	-0.39 (0.08)***	-0.27 (0.10)	-0.14 (0.07)	-
	Leadership	-0.35 (0.08)***	-0.10 (0.11)	-0.08 (0.08)	-
	Education	-0.29 (0.09)*	-0.14 (0.11)	-0.03 (0.08)	-
	Value	-0.16 (0.09)	-0.35 (0.12)*	-0.10 (0.08)	-
	Belong	-0.43 (0.09)***	-0.45 (0.12)***	-0.29 (0.08)**	-
	Respect	-0.23 (0.06)**	-0.25 (0.08)*	-0.08 (0.06)	-
	Voice	-0.43 (0.09)***	-0.35 (0.12)*	-0.18 (0.08)	-
	Foster	-0.41 (0.09)***	-0.29 (0.12)	-0.20 (0.08)	-
	Differ	-0.33 (0.09)***	-0.29 (0.11)*	-0.14 (0.08)	-

Note: * p < .05. ** p < .01. *** p < .001. Standard errors are in parentheses.

APPENDIX D: Effect Sizes on Antidiscrimination Statements Across Intersectional Groups					
		Intersectional Group			
Intersectional Group	**Survey Item**	**White Men**	**Men of Color**	**White Women**	**Women of Color**
White Men	Policies	-			
	Education	-			
	Tolerate	-			
	Report	-			
	Action	-			
	Discuss	-			
Men of Color	Policies	-0.36 (0.08)***	-		
	Education	-0.37 (0.11)**	-		
	Tolerate	-0.23 (0.10)*	-		
	Report	-0.29 (0.11)	-		
	Action	-0.26 (0.11)	-		
	Discuss	-0.07 (0.12)	-		
White Women	Policies	-0.20 (0.06)*	0.15 (0.08)	-	
	Education	-0.26 (0.08)**	0.11 (0.11)	-	
	Tolerate	-0.22 (0.07)*	0.06 (0.09)	-	
	Report	-0.24 (0.08)*	0.05 (0.10)	-	
	Action	-0.34 (0.08)***	-0.08 (0.10)	-	
	Discuss	-0.35 (0.09)***	-0.28 (0.11)	-	
Women of Color	Policies	-0.56 (0.07)***	-0.21 (0.08)	-0.36 (0.07)***	
	Education	-0.44 (0.09)***	-0.07 (0.11)	-0.18 (0.08)	
	Tolerate	-0.52 (0.08)***	-0.24 (0.10)	-0.30 (0.07)***	
	Report	-0.56 (0.09)***	-0.28 (0.11)	-0.32 (0.08)***	
	Action	-0.60 (0.09)***	-0.34 (0.12)*	-0.26 (0.09)*	
	Discuss	-0.64 (0.10)***	-0.58 (0.12)***	-0.30 (0.09)**	
*Note: * p < .05. ** p < .01. *** p < .001. Standard errors are in parentheses.*					

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