Diversity, Equity, and Inclusion Statement

My perspective on diversity, equity, and inclusion is informed by my identity as a daughter of Peruvian Immigrants and a person with physical disabilities. I have encountered my share of systemic and cultural barriers while pursuing a Ph.D. in pure mathematics and while working as a high school mathematics teacher. These experiences drive my commitment to creating inclusive environments which support the success of a diverse student population.

As a woman interested in the history of mathematics, I am painfully aware that only four women in the 19th century were recognized for their contributions to mathematics. Tragically, that fact is often followed by the explanation, "it's because women are just not that *interested* in math."; this same argument is used to explain why women continue to be underrepresented in the field.

Not only do such comments diminish a woman's sense of belonging within the mathematical community, but they are factually inaccurate. In fact, Rainey et al. (2018) interviewed 120 women who were college seniors and had entered college as STEM majors; forty whom dropped out of the STEM field. Some of those that left explained why they felt like they didn't belong to the STEM community, and only one of those women stated that it was because she *lacked interest*[1]. Therefore, I offer a counter-interpretation of the historical underrepresentation of women in mathematics. In order to pursue an education in mathematics, despite the condescension and microaggressions they must have constantly faced, those four women must have been incredibly passionate about mathematics.

Unfortunately, the prolonged silencing of women in mathematics has progressed into an epidemic of math insecurity – possibly preventing them from contributing to whole class discussions even when they show mathematical competency in small groups (Ernest et al., 2019). If women don't share their contributions publicly, they won't be recognized for their contributions. This lack of recognition erodes women's STEM identity – especially women of color – and this, in turn, diminishes their sense of belonging (Rainey et al., 2018). Many studies have found that lacking a sense of belonging to the mathematics community prevents many women from pursuing their degree in math (Good et al., 2012; Rainey et al., 2018). Knowing this, one of my main objectives is to make every class feel like a community. To ensure that the women in my class feel like they belong, I make special efforts to ensure that their contributions are acknowledged by the class.

I can vividly recall four times during my life when I was told that I didn't belong to the mathematics community. In high school, a teacher told me it would be too hard for me. My freshman year in college, a professor told me that I should find another major – her reasoning being that I cared too much about how I dressed. That same year I was told by a male classmate that I probably shouldn't be a math major because I didn't *seem* like the math major type. Upon returning from a leave of absence during my divorce, the math department program coordinator told me that getting a degree in math would be too hard for a young single mom. I've recounted these experiences to almost every class I've taught because I want students to see that those in positions of power are often wrong about who belongs and who doesn't belong.

Encounters like these are distressingly common among women pursuing STEM degrees, and often drive women away from the disciplines entirely. Having two strong mathematical women in my family helped me hold on to my math identity. Had it not been for their continuing mentorship and support, I may have also been driven away from mathematics. With this in mind,

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[1] This data in Rainey et al. (2018) was presented as percentages of the number of participants in a category. When calculated, it was determined that only one woman cited "lack of interest" as a reason for lacking a sense of belonging.

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I try to provide that same mentorship and support to women and other underrepresented groups. In each class, I try to help my students gain confidence in their mathematical abilities and to provide them with resources that would help them achieve their goals in math.

As an example, during my teaching career at BASIS Scottsdale, I taught almost every high school student, at least once. In each class, I highlighted contributions to mathematics from those who are in historically underrepresented groups to clearly communicate that mathematics can be – and has been – done by everyone. One of the classes I designed and taught was called Introduction to Set-based Categories, which I soon discovered was very similar to the curriculum of a selective math camp called the Stanford University Mathematical Camp (SUMaC). This fact helped me convince Categories students to apply to SUMaC. Most of the boys did not need convincing, so I made special efforts to convince the girls. During my decade at BASIS, fourteen students from my Categories course were accepted into SUMaC: five of these were women and all five were later accepted to Stanford as Mathematics or Computer Science majors.

Further evidence of the impact of my efforts is that during my time at BASIS, twenty-nine graduates who had taken one or more of my post-calculus classes declared as mathematics majors in college, thirteen of them women – while in the six years prior to my initiatives, only one student had done so. I am proud of the role I played in helping these young women envision themselves as successful in math.

In addition to misogyny, I have experienced race and language-based stereotypes and discrimination. The year that I moved permanently to the U.S., I was asked to take a math placement exam. The teacher called me out of class an hour after I took the exam and asked me who helped me with the exam. When I explained that no one did, she said that, since I spoke Spanish, I couldn't have done it by myself. The idea that Latinx students are, by nature, not good at math is a racial trope that has existed in the U.S. for a long time. However, if that were true, then there would be no mathematicians in any Latinx countries. To refute this idea, I coauthored a paper (Eaton & Bailey, 2018) with another Latina in the STEM field to highlight the accomplishments of a Peruvian mathematics educator with the aim of reframing the conversation from underrepresentation of Latinas in STEM in the U.S. to representation of Latinas in STEM in Latin America. By broadening the geographic region in which representation is counted, we hoped to navigate the conversation away from deficit thinking and gap gazing. Throughout this paper, we documented our struggles as Latinas in STEM *in the U.S.* with the hope that other Latinas would feel included in the STEM community.

Last year, I was invited to the Advancement for Chicano/Hispanic and Native Americans in Science (SACNAS). As soon as I returned, I decided to play an active role in the ASU SACNAS chapter. As such, I served as marketing officer –increasing awareness of our chapter – and outreach officer – recruiting and organizing social events. In the future, I plan to continue working with SACNAS by supporting university SACNAS chapters and building a mentorship program between SACNAS faculty members and the SACNAS chapter members. As a faculty member, I hope to build outreach programs to K-12 schools to support students from underrepresented groups who are interested in STEM. As an educator with almost 20 years of experience with K-12 students and success in promoting their interest in mathematics, I feel like I am particularly suited for such an undertaking. In short, my love of mathematics, my perspective as a Latina woman in mathematics, and my experience as an educator has driven, and will continue to drive, my commitment to diversity, equity, inclusion, and belonging.

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