Testimony of Nicole M. Karn, PhD
Before the House Higher Education Committee
Rep. Kristina Roegner, Chair
February 9, 2025

Chair Roegner, Vice Chair Cirino, Ranking Member Ingram, and members of the Senate Higher Education Committee,

My name is Nicole Karn, and I am an associate professor of teaching in the department of chemistry and biochemistry at The Ohio State University, where I have taught for nearly ten years. I do not represent The Ohio State University, but rather am submitting testimony as a private citizen in opposition to Substitute Senate Bill 1.

There is nothing in this bill that "advances" higher education as the title purports and no there are no changes that could be made to this bill that would make it any less concerning to higher education.

There are many aspects of this bill that are disturbing including the unnecessary micromanaging of faculty evaluations and post-tenure review, the banning of striking, the labeling of certain ideas as "controversial", restricting the ways in which faculty can freely speak about some topics, and the requirement of faculty to post detailed syllabi which opens them up to potential harassment. Each of these issues affects faculty and students who are currently employed and enrolled at Ohio's universities, and, of course, it affects future students and faculty as well. Today, however, I will speak about the proposed bill's efforts to eliminate diversity, equity, and inclusion programs at universities.

It is well known within science, technology, engineering, and math (STEM) fields that women and minorities- Black and Brown people- are more likely to drop out of a STEM major or perform more poorly in STEM gateway courses than their cis white male peers (Harris et al.). Why is this? Often, the culture of STEM classrooms doesn't foster a sense of belonging, science identity, or self-efficacy for women and minority students, and can lead students to feel stereotype threat. This is particularly true for students from historically excluded groups (women and black, Indigenous, and people of color). In many cases, this is because STEM courses historically have been and often are still taught by White men. Only 10.1 % of STEM faculty are from underrepresented groups (APLU INCLUDES Project) and only 34.5 % of STEM faculty are women (Yale Scientific). When students struggle to see themselves in their teachers and mentors, they often opt for other majors and careers in which they

do. In order for Ohio to develop the best and brightest scientists, we need to provide an environment for all to thrive.

Diversity, equity, and inclusion (DEI) practices have been shown to improve student retention and learning (White et al., Tanner and references within). Banning DEI eliminates the acknowledgement of lived experiences of all students and turns those lived experiences into controversial beliefs. We need to acknowledge the lived experiences of all students. If the goal of this bill is to “put students first” as Sen. Cirino has claimed on the Saving Liberty podcast, then clearly, banning DEI programs is not the answer. I’d encourage you to read the short Letter to the Editor published in Science called “Systemic racism in higher education.” This letter, published in 2020, has four authors in addition to 10,234 signatories. Clearly, systemic racism is of utmost concern to thousands of STEM faculty. I can also assure you that systemic racism still persists, even five years after this article was published.

I have been part of a working group at Ohio State University focused on improving the student experience in our gateway STEM courses in order to increase retention and grades among students from historically excluded groups. To do so, we have focused on evidence-based inclusive teaching practices which include structured teaching and active learning. Specifically, we plan to implement problem-based learning in which students work together to solve challenging chemistry problems and to make space for peer mentoring. In order for these activities to work, faculty must enter the classroom with the expectation that all students can learn the material presented, but that each student enters with different exposures to the topics presented in the course. These types of activities have been shown to improve retention and grades for all students (Canning et al.), not just women and those from historically excluded groups. These activities, which would fall under the category of DEI according to this bill, are not controversial. Teaching our students, making sure they all succeed, should not be banned– which is exactly what this bill would do.

It is for these reasons that I urge you to vote no on SB83.

References:

Megan Zahneis, Statehouses’ Targeting of Diversity and Tenure Is Starting to Scare Away Faculty Job Candidates, The Chronicle of Higher Education, May 5, 2023

R. B. Harris, M.R. Mack, J., Bryant, E.J. Theobald, S. Freeman;, Reducing achievement gaps in undergraduate general chemistry could lift underrepresented students into a “hyperpersistent zone”.Sci. Adv., 2020, 6, eaaz5687(2020).DOI:10.1126/sciadv.aaz5687

J. Bennett, L. Lattuca, K. Redd, and T. York; Strengthening Pathways to Faculty Careers in STEM: Recommendations for Systemic Change to Support Underrepresented Groups, Lessons from the APLU INCLUDES Project

Yale Scientific
https://www.yalescientific.org/2020/11/by-the-numbers-women-in-stem-what-do-the-statistics-reveal-about-ongoing-gender-disparities/

K. N. White, K. Vincent-Layton, and B. Villarreal; Equitable and Inclusive Practices Designed to Reduce Equity Gaps in Undergraduate Chemistry Courses, Journal of Chemical Education 2021 98 (2), 330-339 DOI: 10.1021/acs.jchemed.0c01094

K. D. Tanner, Structure matters: twenty-one teaching strategies to promote student engagement and cultivate classroom equity. CBE Life Sci Educ. 2013 Fall;12(3):322-31. doi: 10.1187/cbe.13-06-0115.

P. H. Barber, T. B. Hayes, T. L. Johnson, L. Marquez-Magana; Systemic racism in higher education. Science, 2020, 369, 1440-1441(2020).DOI:10.1126/science.abd7140

E. A. Canning, K. Muenks, D.J. Green, M. C. Murphy, STEM faculty who believe ability is fixed have larger racial achievement gaps and inspire less student motivation in their classes.Sci. Adv.2019, 5, eaau4734, .DOI:10.1126/sciadv.aau4734