

SB 83 Testimony

Lisa Hall, Upper Arlington, Ohio

Chairman Cirino and members of the Senate Workforce and Higher Education Committee,

Thank you for the opportunity to testify. My name is Lisa Hall. I grew up in West Carrollton, south of Dayton, and I went to Archbishop Alter High School in Kettering. I left Ohio for my undergraduate, graduate, and postdoctoral training. I was so happy to come back home to Ohio in 2012 after being hired by The Ohio State University in the William Lowrie Department of Chemical and Biomolecular Engineering. I was hired as an assistant professor at that time; I later was promoted to associate professor with tenure, and, last year, I was promoted to full professor.

I want to be clear that I am testifying for myself as a citizen of Ohio with an interest in higher education, both due to my job and generally in my life, such as due to my kids' interest in going to college. I'm not speaking for my employer or any other groups.

I am not an expert in political science or any social sciences or humanities. Instead, I'm a fairly stereotypical chemical engineer – I got into this area because I like math and science and didn't want to work with people, who are much more confusing to me than equations. Unfortunately for my teenaged self, or fortunately for the richness of life overall, it turns out that, even as an engineer, you can't get far by just sitting at home solving problems in your head. At a minimum, you have to communicate effectively, and, to have the most impact, you have to see where your work fits in as part of a larger team working on a bigger problem, and also understand the broader societal context. Say you're working on improving ion conductivity of an electrolyte material; you need to talk with people making the electrode materials and designing the whole battery, and understand the general societal demands for batteries and how they may change over time.

So, I have learned a few things about working with people over the years, both as an engineer and as a mother. People like to be respected and valued, and to have some independence in exactly how they do their work. When I look at Senate Bill 83, I don't get the sense that the Ohio General Assembly values what I and my colleagues are doing in trying to teach the next generation the skills they need to succeed after graduation.

Some of it sounds reasonable – for instance, having annual performance evaluations – but why would the Ohio General Assembly impose the details of how this is done? I have formal annual reviews that relate to my salary raise, teaching assignments, and other details of my job. I can think of a lot of problems that would be caused by requiring raw numerical student evaluation data (without further context) as a key part of this process, but I don't want to get too much into the details here – this is not a short bill and I'm not an expert in legislation.

The one other specific thing I want to discuss from the bill is the broadness and lack of clarity in some parts, especially in terms of “controversial topics”. It is inherently difficult to impose regulations that make sense across all courses and types of teaching, especially from the outside. The bill says faculty cannot “seek to inculcate any social, political, or religious viewpoint”. I’m teaching thermodynamics this semester and I do an example where we calculate the fugacity of CO_2 in liquid seawater and air. We can simplify the problem by assuming the system reaches equilibrium, the gas is ideal, and Henry’s law holds for the liquid, though we discuss why this is not perfectly accurate. For a given increase in the concentration of CO_2 in the air, you can calculate the increase in its concentration in the seawater. I like teaching this example because students recognize the importance of understanding the effects of changing the concentration of CO_2 in the atmosphere, so they find it more interesting than some other fugacity-related content. But this bill would mean that I would drop that example. I’m not an expert in climate change, but I understand that some people consider calculations about CO_2 in the environment controversial. I don’t want to worry about what that means for me when I’m just trying to teach thermodynamics. So under this law, I would be safe and do something more generic, sharing a bit less of my personality and excitement about the material with the class. That is, if I were to stay here in Ohio under that circumstance.

The big picture for me is, science and engineering is global. The fugacity coefficient doesn’t change based on where you are or how you feel about it, but people do. If we make regulations that set Ohio universities at a disadvantage – either by adding red tape to regulate things that are already points of agreement, or by more invasive regulations that stop universities from doing what they think is needed to train students to work effectively in a global society, we will lose faculty and students. I would think twice about advising my kids to stay here. There are other regions where faculty would feel more valued and students would be able to freely learn from the highest regarded experts in their fields. Thank you again for the committee’s time.