Testimony of Dr. Michael Koop, PhD. Physics
Before the Senate Higher Education Committee
Senator Kristina Roegner, Chair
February 11, 2025

Chair Roegner, Vice Chair Cirino, Ranking Member Ingram, and Members of the Higher Education Committee:

My name is Dr. Michael Koop, and I am a Professor of Instruction in Physics & Astronomy at Ohio University Chillicothe Campus, where I have taught for nine years. I do not represent Ohio University or the Chillicothe campus but rather am submitting testimony as a private citizen in opposition to Senate Bill 1.

The core principle underlying everything that I teach is the application of scientific critical thinking skills in evaluating evidence to determine whether a given claim is likely true or false. This is the cornerstone of all scientific fields. This principle recognizes that not all claims are equal, and that we should proportion our confidence in a claim to the strength of the evidence after we have dispassionately evaluated all the relevant available facts. Differing viewpoints are always considered when presented, and previously held ideas are always subject to revision or rejection when new evidence comes to light. These viewpoints and ideas must be supported by rigorous observational or experimental data. This principle of requiring that a claim have evidentiary backing before accepting it drove the scientific revolution and the corresponding explosion of discovery, innovation, and technological development that continues to drive our modern world.

SB1, while claiming to promote “Intellectual Diversity” and prohibit “indoctrination” of “Controversial Beliefs or Policies”, will do exactly the opposite, simultaneously restricting evidence-based scientific topics and potentially opening a floodgate of pseudoscientific noise into classrooms that must be considered as a “divergent and varied perspective”. SB1 would allow any student that comes in with a belief held for any political/religious/ideological reason that relates to any scientific topic to demand that their position be considered and derail the class, under the threat of forcing an inquiry upon the instructor.

For example, a student in an astronomy class could demand that we discuss astrology and the accuracy of horoscopes as celestial signs, rather than talking about Kepler’s Laws of Planetary Motion. Similarly, a student who accepts flat Earth claims could demand that we discuss their personal, but unsupported and demonstrably false, alternative to the scientific understanding of gravity. Even more chilling is that SB1 specifically mentions the science of climate change as a “controversial belief” and would therefore be prohibited from being discussed at all even though multiple independent lines of scientific evidence strongly confirm that climate change is both occurring and primarily driven by human activity.

To be clear, I often bring up these topics in the classroom for discussion but do so in the context of scientific critical thinking and how we demand evidence before accepting a claim. We discuss how these pseudoscientific claims either lack supporting evidence or have directly disconfirming evidence against them. In the language of SB1, this could be seen as "endorsing or opposing [a] controversial belief or policy" or an "attempt to indoctrinate" which would require a response from the institution. This isn't indoctrination, it is simply the process of science. I make the same demands for evidence when discussing any scientific principle. At the beginning of my courses and science outreach programs, I emphasize that no one should accept the claims I'm discussing just because I'm at the front of the room talking. Instead, I tell them that whenever I make a claim, their response should be to demand evidence and withhold accepting the claim until sufficient evidence has been provided.

SB1, by prohibiting the discussion of so called "controversial beliefs" and protecting other "divergent and varied perspectives" from rigorous scientific evaluations (under the guise of "intellectual diversity" and under threat of disciplinary actions), will cause a chilling effect on any rigorous discussions in higher education. Students of all ages and in all fields of study need experience in seeing how scientific critical thinking is applied to address questions and solve problems. This is essential in preparing students for future careers in a competitive and science-based job market. Intel is not going to want to invest in a state that actively disadvantages its future workforce by quelling the very methodology of scientific inquiry and evaluation that is central to technological development. SB1 would directly contribute to a decrease in the preparedness and success of Ohio's future workforce.

In addition to critical problems with SB1 related to the unincumbered teaching of scientific methodologies, there are many other fundamental issues with SB1, such as removing important student support systems which would fall under the umbrella of diversity, equity, and inclusion (DEI) efforts. I continue to have students of many different backgrounds that directly benefit from programs that would be eliminated for the sake of politicians that want to slay a DEI boogeyman of their own making for political points. The elimination of these programs would directly harm hardworking students who, through no fault of their own, need reasonable levels of support to overcome external barriers. The goals of these programs include increasing recruitment and retention, providing financial support for economically struggling students, ensuring accessibility for students with physical impairments, providing student mental health support, and simply encouraging an institutional atmosphere where students, faculty, and staff of all backgrounds can participate on a level playing field without artificial barriers. These programs are critical in increasing the pool of students who can succeed academically and in the future workforce and should not be cut by the passage of SB1. It seems a sad contradiction that SB1 seems to be fighting so hard for "Intellectual Diversity" (even if the ideas are unsupported by evidence) while fighting so hard against a diverse student population (even when the students are incredibly hard working).

Ohio's higher education system is not perfect. There are issues with underfunding, the cost of tuition and student loans, administrative bloat, hiring practices and the overreliance on adjunct faculty, and more. SB1 solves none of these problems and makes several of them worse, and for those reasons I would urge the Senate Higher Education Committee to vote no on Senate Bill 1. Thank you for your careful consideration on this matter.