

Dear Academic Planning Committee,

My name is Jacqueline Herman (formerly Wroughton), and I graduated from UNL with a PhD in Statistics in 2007. I am writing to express my deep concern about the proposal to eliminate the statistics program (and department) from UNL. The statistics program at UNL was instrumental in shaping my education, career, and outlook on the world, and I believe that this program remains essential not only for current and future students but also for the university's reputation as a leader in higher education, particularly within STEM disciplines.

During my time at UNL, two professors in particular had a lasting impact on my career. Dr. Erin Blankenship, my first instructor at UNL and later my PhD advisor, sparked in me both a love of statistics and of teaching through her contagious passion and patient mentorship. She guided me through my dissertation with just the right balance of support and independence, and she remains a trusted colleague and collaborator to this day. I also had the privilege of learning from Dr. Chris Bilder, whose clear, detailed instruction provided a model of excellence in teaching. The courses I later developed at NKU in categorical data analysis and applied multivariate analysis were directly inspired by his classes, and I continue to draw on the foundation he built for me. Faculty like Dr. Blankenship and Dr. Bilder exemplify the kind of expertise and dedication that make UNL's statistics program so impactful, not only to students but to the broader academic community.

This kind of faculty expertise is vital because statistics itself is an important blend of three areas of STEM: science, technology, and mathematics. Statistics is a science—the science of data. It is full of technology, as statisticians are constantly learning new statistical analysis programs such as R and SAS, and often gain strong programming skills in languages such as Python and Java. Finally, and most closely associated with statistics, is mathematics. A firm understanding of calculus, logic, linear algebra, and mathematical modeling is essential for any competent statistician.

It is a common misconception today that anyone can quickly become a statistician. As I have told my own students, I can teach someone how to plug numbers into software, but it takes deep knowledge of statistical methods to select the most appropriate analysis, critically evaluate the output provided by technology, and understand potential biases or confounding factors. For example, technology may tell me whether medications I am taking could interact, but would I really want to rely on that alone, rather than consult a pharmacist who has spent years studying this field and knows what additional questions need to be asked? I would not. Similarly, statistics ensures that conclusions drawn from data are accurate and reliable.

I am aware of the growing emphasis on "data science" programs. While these programs are valuable, they serve a different purpose than statistics. Data science often emphasizes programming, database management, and applying pre-built machine learning tools. Statistics provides the foundation: it teaches how to design studies, account for variability, and determine whether results are valid and trustworthy. A data scientist may be able to run an algorithm, but a statistician knows when that algorithm is appropriate, what assumptions it makes, and how to interpret its output responsibly. Without this expertise, the risk of drawing false or misleading conclusions grows dramatically. In this way, statistics and data science are complementary, but statistics is the discipline that ensures data is transformed into reliable knowledge.

Statistics is not just another program; it is essential for a university like UNL to fulfill its mission. As a land-grant institution, UNL serves the state through research, education, and outreach, and statistics is central to all of these. Nebraska's economy is rooted in agriculture, where statistical expertise is critical for crop trials, livestock studies, and environmental modeling. The health sciences, particularly through UNMC, rely heavily on statisticians to ensure that medical and public health research is valid and trustworthy. Just as important, faculty across the university—in business, engineering, psychology, education, and the social sciences—regularly seek out statisticians as analysis experts to design studies, evaluate data, and validate results. Without a strong statistics program and dedicated faculty to fill this role, UNL would be forced to outsource or weaken this expertise, putting both research quality and student opportunities at risk. At a time when peer institutions are strengthening their statistics programs, eliminating UNL's would not only harm Nebraska's students and communities but also diminish the university's standing as a leader in STEM education. To move in the opposite direction—eliminating statistics entirely—would be to step away from excellence and risk becoming a more mediocre institution at a moment when excellence in data-driven fields is more important than ever.

In closing, I urge you to recognize that statistics is a cornerstone of modern education and research, not an expendable program. To eliminate it would not only undermine the university's ability to serve its students and the state of Nebraska, but also send a message that UNL is retreating from its role as a leader in STEM. I am proud to be an alumna of UNL's statistics program, and I hope that future generations of students will have the same opportunity to study a discipline that is more vital now than ever before.

Sincerely,

Jacqueline Herman, PhD

hermanj1@nku.edu

Professor & Statistics Program Coordinator Northern Kentucky University

Jacqueline Horman