Dear Academic Planning Committee,

As a researcher, faculty member, research leader, educator, and Associate Dean for Research and Innovation in the College of Architecture, I am writing to express my deep concern over the proposed elimination of the Statistics Department at the University of Nebraska–Lincoln. This proposal runs counter to the university's academic priorities, its research mission, and its land-grant responsibilities to the state. The loss of this department would not only diminish the quality of education and research at UNL but also weaken Nebraska's workforce and economic competitiveness in critical industries.

Education: The Foundation of Data Literacy and Student Success

Statistics is a universal language of knowledge, critical for every discipline across the university. From engineering to agriculture, business to architecture, and health sciences to the social sciences, **all students and faculty rely daily on statistical methods** for problem-solving, analysis, and decision-making.

The Statistics Department provides indispensable instruction in data literacy, quantitative reasoning, and applied problem-solving. These skills are no longer optional; they are essential for success in every professional pathway. Statistics courses train undergraduates to think critically about data, prepare graduate students to conduct rigorous research, and equip doctoral candidates with the methodological foundation to advance knowledge in their fields.

Faculty from the department also serve as committee members and mentors for graduate and Ph.D. students across the university, ensuring high standards of scholarship. In my own programs, they have guided multiple students, strengthening dissertations with robust methodological rigor. Without their expertise, Nebraska's students would graduate less prepared for a world where data interpretation is a fundamental job requirement.

To eliminate the department would be to send a message that UNL is stepping back from preparing its students for a data-driven economy. That would be a profound disservice to students and to the industries that depend on them.

Research: The Engine of Innovation and Interdisciplinary Collaboration

The Statistics Department is not only an educational cornerstone; it is also the **engine of interdisciplinary research across UNL**. Statistics is the backbone of evidence-based discovery, and faculty expertise in this area empowers researchers across disciplines to achieve excellence.

I have personally experienced this impact. I collaborated with a Statistics faculty member on invasive tree research, a pressing issue for rangeland productivity in Nebraska and the Great Plains. This

collaboration produced high-quality publications and resulted in innovative methodological approaches that opened doors to entirely new projects. Faculty from the department have also contributed extensively to my students' research and my own projects in Geo-AI, providing essential knowledge that I could not replicate within my own field. Without their support, many of our most ambitious projects would stall or fail to meet the standards required for high-impact publications and competitive funding.

Interdisciplinary research is the foundation of new scientific frontiers, and statistical expertise is the linchpin that makes collaboration possible. Whether in climate science, public health, precision agriculture, or artificial intelligence, breakthroughs depend on accurate data modeling, robust analysis, and statistical validation. Without a dedicated Statistics Department, UNL risks dismantling the infrastructure that undergirds nearly every major research initiative on campus. This would have devastating consequences for the university's ability to secure federal research funding, publish in top journals, and maintain its status among peer institutions.

Economic Impact: Building the Workforce Nebraska Needs

The impact of the Statistics Department reaches far beyond the classroom and laboratory. It is a **direct driver of Nebraska's economic vitality and workforce development**.

Nebraska is home to some of the nation's most important industries, all of which depend on applied statistics:

- **Insurance and Finance:** The insurance sector is one of Nebraska's largest industries and employers. Actuarial science, risk modeling, fraud detection, and financial forecasting all rely on advanced statistical methods. Without a steady pipeline of statisticians, this critical industry will face serious workforce shortages.
- **Technology and Artificial Intelligence:** Nebraska's growing technology sector, including cybersecurity, big data analytics, and machine learning, depends on a workforce trained in statistics and data science. These fields are expanding rapidly, and demand for statisticians is projected to grow significantly over the next decade.
- **Agriculture and Natural Resources:** As the state's defining industry, agriculture increasingly depends on statistical models for crop forecasting, precision agriculture, water management, and climate adaptation. Statistical expertise ensures that Nebraska remains a global leader in agricultural productivity and resilience.

If the Statistics Department is eliminated, Nebraska risks not only weakening its pipeline of trained professionals but also undermining the competitiveness of industries that sustain its economy. Workforce development in the state will suffer, and businesses will be forced to recruit talent from outside Nebraska, draining opportunities for students and eroding the state's economic foundation.

Conclusion: Invest, Don't Eliminate Statistics Department

The Statistics Department is **irreplaceable**. Its contributions span education, research, and economic development, touching every student, every faculty member, and every industry in Nebraska. Eliminating this department would harm education, cripple interdisciplinary research, weaken the state's workforce, and undermine Nebraska's ability to compete in the AI- and IT-driven economy of the future.

This is not the moment to dismantle capacity—it is the moment to strengthen it. UNL should not only preserve but actively invest in the Statistics Department, building on its proven strengths in data science, analytics, and applied research. Doing so will ensure that UNL fulfills its mission as a land-grant institution, supports Nebraska's industries, and positions the university for long-term success in an increasingly data-driven world.

Sincerely,

If further information is needed, please contact me by phone at (402)472-9281 or via email at ztang2@unl.edu.

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