

Dear President, Chancellor, and other members of UNL leadership,

We are the chairs, heads and directors of Departments and Schools of Statistics in the Big 10 Academic Alliance. We write with grave concern for our fellow institution, the University of Nebraska-Lincoln (UNL). While we understand the need for UNL and IANR to solve difficult budgetary challenges, eliminating the Department of Statistics would be counterproductive. It is also very hard for us to understand how IANR will achieve the goals of its strategic direction document (“Grow and strengthen Nebraska’s agricultural and natural resources ecosystems” and “Improve the health and well-being of all Nebraskans”) without a strong Statistics Department that can support the rest of the university’s teaching and research enterprise. Moreover, dissolving the Statistics Department will make it difficult, if not impossible, for UNL to achieve its goal of rejoining the Association of American Universities (AAU).

In the age of AI, universities in the U.S. and abroad recognize the importance of Statistics as an independent discipline. Among the eighteen Big 10 institutions, only two do not have separate dedicated units for statistics or data science, and only one does not offer graduate degrees in statistics. Evidence of that recognition is the fact that our own institutions have been investing in our units. For example, the number of new hires in the last 5 years make up over 25% of the tenured and tenure-track faculty at each of Michigan State University, Ohio State University, Penn State University, and the University of Washington (6, 9, 11, and 6 faculty, respectively). Beyond the Big 10, the current trend in US higher education is to invest in statistics and data science, rather than to scale back or cut. One notable example is that Washington University in St. Louis (overall ranked #21 by US News and World Report) stood up a brand-new Department of Statistics and Data Science in 2023, with aggressive hiring to reach a current faculty size of 22. More broadly, there are no examples in the U.S. of thriving statistics research and teaching programs in Statistics without a stand-alone statistics department to support them.

Leaders at AAU institutions recognize that investments in statistics lead to greater strength throughout the entire institution and, consequently, to improved bottom lines. These broad contributions have a unique profile and so may not be obvious in scans of traditional metrics. Statistics faculty tend to be intensely interdisciplinary. Their direct costs often seem relatively small, but they play key roles in research projects with very large budgets. In grant proposal review panels, a common point of criticism and not infrequent reason for a poor score is the lack of a highly qualified statistician in the leadership team. In the rapidly changing landscape of data availability, type, size, and computing power, highly qualified statistics researchers (not just consultants) are essential to the success of impactful interdisciplinary science.

Beyond their interdisciplinary work, statistics faculty also independently contribute to the advancement of science. At this time of great transition, as AI tools and concepts rapidly grow, evolve, and gain popularity, statistical expertise is key. Novel challenges in these areas fall squarely within the statistical arena, where considerations of prediction, estimation, bias, and variation keep the scientific endeavor moving forward rather than spiraling into hallucination. In short, statisticians are indispensable for scientific progress in the modern era.

The support structure of a separate Department of Statistics is also extremely important to providing a strong statistical core for an institution of higher education. The most talented faculty recruits want to join a vibrant community of their peers who provide a stimulating intellectual community, robust mentoring, and fair evaluation. Separate units also provide the opportunity for more fair compensation, as higher education competes with tech industry powerhouses to recruit top talent. This is an era where demand for statistics faculty outstrips the supply of qualified candidates. So even a slight 'edge' for recruitment is consequential.

The dissolution of a well-established statistics unit would provide an extremely difficult environment in which to recruit new statistical talent to an institution. Statisticians generally choose offers from departments of statistics over those from other departments because of the environment noted above. As the Washington University of St. Louis example clearly shows, it takes enormous investment to stand up a high-quality new department of statistics. An institution that dissolves a statistics unit and eliminates tenure lines and programs loses trust with the statistics community, which would be a nearly insurmountable barrier to recruitment for many years.

Dissolving a department of statistics would have a profound and long-lasting negative impact on statistical expertise, and thus much scientific research, at any institution of higher education. This action would starve a campus of statistical expertise in a way that would decrease the volume and quality of scholarly output across the institution. Any cost savings that would come in the short term from such a cut would surely be small in comparison to the lost revenue and institutional reputation in the medium and long term.

We urge the leadership of our fellow member of the Big 10 Academic Alliance, the University of Nebraska-Lincoln, to revise their announced plan and instead retain - and even consider investing in - the Department of Statistics.

Sincerely,

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