NC STATE UNIVERSITY

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September 16, 2025

University of Nebraska, Lincoln
1400 R St
Lincoln, NE 68588

Letter in Support of the Department of Statistics

Dear Administrator:

Upon hearing the news of a proposal to abolish the Department of Statistics at UNL, I felt compelled to write in the hope of convincing administrators in the decision loop to avoid a decision that will prove harmful to the University in the long run.

Before continuing I want reveal two connections I have to Statistics at UNL. A current faculty member, Dr. Erin E. Blankenship, *John E. Weaver Professor of Statistics*, was one of early PhD students. Second, at the request of then Chair Bertrand Clarke, I wrote a letter in support of the Department's plan to start an undergraduate major. A copy of that letter is attached because it supports a point I make later in this letter.

Although my connections to the department are sufficient to prompt me to write, it is my experience and background that allows me to write with authority and credibility.

I am currently the Alumni Distinguished Professor of Statistics at North Carolina State University (formerly the R. A. Fisher Distinguished Professor of Statistics). Previously I served as head of the department (2016-2022) and as graduate program director (2004-2007). The Department of Statistics at NC State is the oldest (and largest) department of statistics in the US, having been founded by Gertrude Cox in 1941. Ms. Cox had an enormous impact on the development of Statistics in North Carolina, the US, and the world. I mention this historical background because it provides me with the perspective to recognize the importance of Statistics as a discipline and to appreciate the impact it has had from its earliest days. Professionally, I am an elected Fellow of the American Statistical Association and the Institute of Mathematical Statistics. I served as Editor of Association's flagship journal, *The Journal of the American Statistical Association, T&M* (2009-2012), and also as a member on a number of state and national committees, boards, and panels including the BEIR VII Committee on the Health Risks from Exposure to Low Levels of Ionizing Radiation, National Academy of Sciences (2001-2002), and the North Carolina Forensic Science Advisory Board (2012-2013). I consulted for decades at the US Environmental Protection Agency here in Research Triangle Park, NC. Every facet of my career has reenforced the importance and relevance of Statistics to all areas of the physical and social and political sciences.

That is why the news that UNL was considering abolishing Statistics came as such a shock. Especially, in light of the overwhelming and pervasive interest in Data Science, Data Analytics, and related areas. Statistics is *The Science* in Data Science. It is incomprehensible that any scientific organization would want to back away from Statistics at a time when so many are increasing their investment in Statistics. There are very few major universities that do not have departments of

statistics or departments of mathematics and statistics (and the trend among the latter is to separate out statistics from mathematics as Wake Forest University has done very recently). Many major universities have both departments of statistics and departments of biostatistics. The presence of statistics departments at so many major universities is due to the fact that great research (in any discipline) is not possible without statistics. In addition to the impact of statistics on research of all types, the demand for students with degrees in Statistics (undergraduate and graduate) has never been stronger, and their career prospects have never been greater.

I understand that there are five other departments at UNL that have been listed for possible reduction or elimination. I suspect that they have all made substantial and beneficial contributions to their discipline areas, the University, and the State of Nebraska, which of course makes your task of balancing the budget a challenging (and thankless) one indeed. Although I have no discipline expertise in those other departments, I do know that Statistics has an advantage that none of the others possess. Because I wrote in support of the Department's planned undergraduate program in February, 2021, I know that the first cohort of students is not expected to graduate until later this year or next. Evidence from our experience here at NC State University as well as from other math/stat/cs/quantitative departments across the United States, suggests very strongly that the nascent undergraduate program will grow by leaps and bounds. Simply stated, Statistics education and training is a growth industry and will be for some time (at least until AI replaces all of us). It strikes me as shortsighted to pull the rug out from under a program that in a few years time has very strong potential to be a dean's and provost's bragging point. In the four years since the decision was made to start the new undergraduate program, the reasons for doing so, the wisdom of doing so, and the ROI of doing so, have all strengthened considerably.

Eliminating the Department of Statistics might save a little money up front, but it would certainly not be viewed as a positive step among your peer institutions or by any other major universities. Not only is UNL's scientific credibility at risk, the termination of tenured faculty is sure to take a toll on campus morale and possible future hires. It's hard to put a price on the cost to UNL's national reputation, but lost grant funding and enrollment funding (from the young undergraduate program) involve real dollars.

Please think very carefully about the decision to downsize or eliminate the Department of Statistics.

Respectfully yours,

Leonard A. Stefanski
Alumni Distinguished Professor
Department of Statistics
North Carolina State University

cc: E. Blankenship, B. Clarke, B. Bhattacharya

encl: 2021 Undergraduate Major Support Letter

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February 3, 2021

Bertrand Clarke
Professor, Department Chair
Department of Statistics
University of Nebraska - Lincoln
Lincoln, NE 68588

Dear Professor Clarke:

I welcome the opportunity to write in support of your proposed undergraduate major in Statistics and Data Analytics. At NC State we have had an undergraduate major in Statistics since before I joined the department in 1986. In the last 35 years I have seen the size of our program ebb and flow for much of its existence, but the last ten years has witnessed phenomenal interest and growth in both our undergraduate major and minor programs.

In response to the increased demand from students for quantitative and computational training especially as relates to big-data applications, many universities and colleges with little or no experience or faculty expertise in the relevant areas are adding programs in data analytics, or data science, or informatics, etc. Thus it is a welcome relief to see the addition of a well-conceived program from a department with a long history of excellence in graduate training in Statistics, and possessing the faculty qualified to ensure its success.

Your proposed program provides the same level of training as ours with similar mathematics and computer science requirements, and a similar number of required credits in statistics proper. So, I expect that the training received by your future students will be as thorough and rigorous as the training in Statistics that has served our students so well for so long.

Where your proposed program differs from ours is its orientation. Ours is focused on statistical theory and methodology with attention to applications. Yours is focused on the practice of statistics and data analytics, as well as collaboration with other scientists As such, on the surface your program looks to be somewhat more applied. However, judging from your course descriptions, you require the same volume of theory and methodology that we do. If there is a difference, you seem to require a wider scope of methodology and less theory, whereas we currently require more theory and a slightly narrower scope of methodology. The difference in orientation is also borne out in the way that your proposed program includes courses specifically dedicated to collaboration and communication within the discipline. Both programs included advised credits, which allow the students to customize the degree to fit their particular educational goals.

I think it is noteworthy that even though there are differences between our current program

and your proposed program, those differences will fade with time because we are in the process of developing courses for a minor in data science/analytics that will give our students the option of courses that will provide them the wider scope of modern methodology that you have designed into your proposed program. In that sense, your program anticipates future directions to which we too are responding.

NC State students are attracted to our undergraduate major because of the favorable prospects for lucrative employment upon graduation, coupled with the option of continuing their academic training in graduate school. Because your proposed program is similar to ours in that it will provide solid training in core theory and methodology, yet with a modern emphasis on the practice of statistics and data analytics, and collaboration and communication, I expect that the undergraduates at UNL will find it very attractive for the same reasons our undergraduate program continues to grow—the future of statistics and data analytics is bright.

Sincerely,

Leonard A. Stefanski
Department Head
R. A. Fisher Distinguished Professor
of Statistics