

C(PS)² has been a standing committee of the Bernoulli Society since the formation of Bernoulli, and Harry is the tenth, and Ilya the eleventh, in a distinguished line of chairs of this committee

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Awards and Prizes

Ethel Newbold Prize in Statistics

The Bernoulli Council recently approved the establishment of a prize for a body of work that represents excellence in research in statistics, the "Ethel Newbold Prize in Statistics" -- to be awarded every 2 years, beginning in 2015. Ethel Newbold was an English statistician, and the first woman to be awarded the Guy Medal in Silver by the Royal Statistical Society. The name recognizes the historically important role of women in statistics, enhancing the Bernoulli Society's goals toward gender diversity. The prize itself is for excellence in statistics without reference to the gender of the recipient.

A call for nominations will be circulated in the fall preceding the award year. Selection criteria include:

1. Excellence in research in mathematical statistics or
2. Excellence in research that links developments in a substantive field to new advances in statistics and
3. An overall diversity condition that nominations include candidates from both genders in any years in which the award is to be made.

A prize committee consisting of three statisticians over a 3-year term will be appointed by the President with approval of the Executive Committee of the Bernoulli Society to receive nominations and propose the recipient for final approval of the award by the EC and Council.

A detailed biography of Ethel Newbold may be found in her obituary,

Greenwood, M. (1933). Ethel May Newbold. *Journal of the Royal Statistical Society*, **96**, No. 2 (1933), 354 – 357. <http://www.jstor.org/stable/2341811>

Submitted on behalf of the Ad Hoc Committee (Julia Brettschneider, Lynne Billard, Richard Davis, Nanny Wermuth, Nancy Reid (Chair).

Nancy Reid
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David's Musings: Using resources wisely, and the breadth of the mathematical sciences

Whenever I am partly responsible for allocating other people's money (via grants, etc.), I first wonder whether the applicants are using their existing resources wisely. In the bigger picture, "we" -- academics in general, and statisticians and mathematicians in particular -- usually feel we do not have enough resources, and so we ask others (the government via taxes, or students via tuition) for more money. But to what extent are we using existing resources wisely?

One much-discussed aspect is the cost of journals. I don't have anything novel to contribute to that discussion, beyond repeating the obvious that this particular aspect is entirely under our control.

Outrageously expensive journals continue to exist, merely because academic authors continue to submit papers to them.

What prompted today's musings is a different aspect. I recently received a message from a Dean at one of the top U.S. private universities, saying they were putting a certain individual up for tenure, and seeking my advice regarding whom they should ask to write letters. This is the kind of task I'm happy to do, and I soon received by email a list of 26 names. My reaction was to start pruning the list -- A, B and C will know similar parts of his work but B has the broadest perspective, so use her - - in order to reduce it to the 12 who might be most

useful. But in a subsequent phone call, it transpired that they wanted more names, not fewer: "it's our policy" to get such a large number of letters. My remonstrations -- that one gets negligibly more information from 26 letters than from 12, so asking 26 people represents a massive waste of our resources of time and energy -- were ineffectual against the bureaucratic "it's our policy" response. Can we please have a non-proliferation treaty for letters of recommendation?

Changing topics, the relationship between statistics and the mathematical sciences is a big question on which readers surely have their own opinions, so let me just throw out three observations. *The Mathematical Sciences in 2025* is a recent U.S. 200-page panel report on the "current state of the mathematical sciences and the changes needed for the discipline to ... maximize its contribution ... in 2025". Perhaps its central theme is encapsulated in the sentences "The committee members -- like many others who have examined the mathematical sciences -- believe that it is critical to consider the mathematical sciences as a unified whole. Distinctions between "core" and "applied" mathematics increasingly appear artificial; in particular, it is difficult today to find an area of mathematics that does not have relevance to applications." The report outlines 14 topics "as illustrations of the health and vitality of the mathematical sciences". Of these 14 topics, only 3 are traditional pure mathematics. Another 3 are somewhat related to statistics (New Frontiers in Statistical Inference; Uncertainty Quantification; The Mathematical Sciences and Social Networks) and the other 8 relate to computation and to various sciences. A subsequent part of the report is titled "Two Major Drivers of Expansion: Computation and Big Data".

Such reports inevitably contain elements of salesmanship -- the authors are seeking to obtain more resources for the mathematical sciences by emphasizing its modern applications -- but to me the report paints a splendid picture of the desired future as a "broad picture" of mathematical sciences, and incidentally provides an appropriate recognition of Statistics within the broad picture. But my final two observations, below, illustrate two of the numerous difficulties in getting to this desired future.

In late 2011, there emerged a proposal to change the name of the (U.S.) NSF Division of Mathematical Sciences to a name which explicitly mentions Statistics. A sense of the resulting controversy can be gained by searching "DMS name change" on the AMS and IMS

web sites; perhaps unsurprisingly, the proposed change had almost unanimous opposition from mathematicians but strong support from statisticians. Now the name change proposal (eventually not implemented) is a trivial distraction to a more serious issue. Currently, DMS is split into 11 Disciplinary Research Programs which mostly follow the traditional fields studied within mathematics departments; this is in stark contrast to the 2025 report whose authors believe (as I do, although solid data is hard to find) that about half of current "mathematical sciences" research is done outside Mathematics departments. My point is that, judging from the AMS site remarks, mathematics-department mathematicians seem to be taking a backward-looking view. They are seeking to remain a majority within a narrowly-delimited "mathematical sciences" discipline, rather than embracing the likely and desirable transformation to a broadly-delimited discipline, for fear of becoming a minority therein.

My final observation comes from colleague Bin Yu, but first some background. In my academic youth, the word "probability" was so often part of the phrase "probability and statistics" that it was taken for granted that the major application of mathematical probability was to mathematical statistics. With that in mind, I once wrote that I was interested in the applications of probability to everything except Statistics. In writing that, I was not intending to disrespect Statistics, merely taking for granted that many other people were thinking about the applications to Statistics, so I chose to focus on different topics. 30 years later, things have changed drastically; Probability and Statistics are both much larger fields, and both have more active links with other disciplines. But they are pulling apart. For instance, as Bin observed, 30 years ago many probabilists would attend the IMS annual meeting, but now probabilists and statisticians rarely attend the same meetings. In general, finding the balance between maintaining existing communities and encouraging interdisciplinary activity remains a challenging problem. More specifically, Bin reminds us that contemporary Statistics continues to provide many new problems which mathematical probabilists may be equipped to tackle.

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Editor's note: This is the eighth installment of a regular opinion column.