PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Ben B. Hansen, assistant professor of statistics, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of statistics, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2001	University of California, Berkeley
M.S.	2000	University of California, Berkeley
B.A.	1993	Harvard College

Professional Record:

2003 – present	Assistant Professor, Department of Statistics, and Faculty Associate, Survey Research Center, University of Michigan
2001	National Science Foundation Fellow, University of Pennsylvania

Summary of Evaluations:

Teaching – Professor Hansen has made excellent contributions as teacher, advisor, and mentor. He has taught courses at both the undergraduate and graduate levels. He has been proactive in curriculum design and developed two courses. He has played an exemplary role in mentoring undergraduate students and has a good record of doctoral student supervision. He is also very active in undergraduate and doctoral summer research projects at the Survey Research Center in the Institute for Social Research.

Research – Professor Hansen's primary research deals with analysis and design of observational studies and drawing causal inference in such settings. This is a major area of interest in the social sciences. His contributions involve the development of a prognostic score, and inference for causal analysis in randomized, complex surveys. Most of his papers have appeared in top-tier journals in statistics. He has also been successful in obtaining research grants.

Recent and Significant Publications:

"Attributing effects to a cluster randomized get-out-the-vote campaign," with J. W. Bowers, *Journal of the American Statistical Association*, 104(487), 2009, pp. 873-885.

"The prognostics analogue of the propensity score," *Biometrika*, 95(2), 2008, pp. 481-488.

"Covariate balance in simple, stratified and clustered comparative studies," with J. W. Bowers, *Statistical Science*, 23(2), 2008, pp. 219-236.

"Optimal full matching and related designs via network flows," with S. O. Klopfer, *Journal of Computational and Graphical Statistics*, 15(2), 2006, pp. 609-627.

Service – Professor Hansen has served on the department's Executive and Curriculum Committees, and has been very active on the Graduate Admissions Committee. At the University level, he has been involved with the ADVANCE program as a consultant and a grantee. He has been an invited speaker at many conferences and department colloquia, and serves on the editorial board for the *Journal of the American Statistical Association*.

External Reviews:

Reviewer (A)

"Dr. Hansen has made high-quality, unique contributions to the literature on causal inference in observational studies. ...I would characterize Dr. Hansen as a highly-regarded expert on the topic of causal inference in observational studies... ...I am hard-pressed to think of anyone at the same stage of career development who has as high a standing as Dr. Hansen."

Reviewer (B)

"His publications are appearing in the leading journals and his research area is very important. He is one of the best in the area of developing methods for the analysis and interpretation of observational studies. ...his area should be represented in any major statistics Department."

Reviewer (C)

"...he'd be an ideal link between statistics and social science... There's no doubt in my mind that he's also an important current contributor and future leader in this dimension at Michigan. ... I recommend his case fully and without reservation."

Reviewer (D)

"Ben Hansen has done important and fundamental work on causal inference in non-experimental settings. This is a difficult, and often contentious area, but he has staked-out a significant area of contribution. ... His work is rigorous, creative, and important. His impact in social science statistics is already apparent and his work in theory is undeniable."

Reviewer (E)

"Professor Hansen's recent core body of work is concerned primarily with randomization-based inference. ... It is clear that Professor Hansen has already achieved prominent recognition for his contributions in this area. ...I consider Professor Hansen a rising star. His work is rigorous and shows careful attention to details and a deep understanding of application area."

Reviewer (F)

"Regarding his success at establishing his own program of research, I am very impressed. ... He is now one of several scholars [of his generation] who are developing tools that make use of non-parametric methods involving matching rather than simply elaborating on increasingly complicated parametric regression methods. I think this is great and see him as a strong and independent contributor to this area. ...I regard Ben's work in this area as of the highest caliber."

Reviewer (G)

"...Dr. Hansen is clearly a very interesting scholar. ...I think highly of Ben Hansen..."

Reviewer (H)

"Given the fact that his papers have been published in the leading journals, I would estimate that he is in or near the top ten in his field..."

Reviewer (I)

"I see Ben as an interesting (and increasingly influential) iconoclastic thinker. He keeps reminding us not to get trapped in a kind of conventional wisdom that quickly settles around

popular new approaches. ...Ben takes us back to basics. ... I think he is a creative and deeply thoughtful statistician whose work has traction across a variety of audiences."

<u>Summary of Recommendation</u>:
Professor Hansen has established himself as a leading researcher in the area of casual inference in non-experimental settings. He is an excellent teacher and mentor, and he has provided valuable service to the Department and to the profession. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Ben B. Hansen be promoted to the rank of associate professor of statistics, with tenure, in the College of Literature, Science, and the Arts.

Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History and Dean
College of Literature, Science, and the Arts

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