

PROMOTION RECOMMENDATION  
The University of Michigan  
School of Public Health  
Department of Biostatistics

Peisong Han, assistant professor of biostatistics, Department of Biostatistics, School of Public Health, is recommended for promotion to associate professor of biostatistics, with tenure, Department of Biostatistics, School of Public Health.

Academic Degrees:

Ph.D.	2013	University of Michigan
M.S.	2008	Michigan State University
B.S.	2006	University of Science and Technology of China

Professional Record:

2019-Present	John G. Searle Assistant Professor of Biostatistics, University of Michigan School of Public Health
2018-Present	Assistant Professor, Department of Biostatistics, University of Michigan School of Public Health
2013-2017	Assistant Professor, Department of Statistics and Actuarial Science, University of Waterloo

Summary of Evaluation:

Teaching – Professor Han has taught a number of different courses at both the undergraduate and graduate levels with highly variable group sizes, and has an excellent teaching record. The student rating of the instructor and overall rating of his courses are well above 4.0 (on a 5-point scale) and have increased in the time he has been at the University of Michigan. In his Application of Regression Analysis to Public Health Studies course (Biostat 502), which is a relatively large course with a diverse student body, his Q1 score in 2018 was 3.29. This improved to 4.60 in 2019 and again to 4.80 in 2020. These increased ratings were higher than both the university- and the school-wide medians, a trend that is reflected in his other evaluations. Professor Han’s students have received distinct honors for their mentored research work including the 2020 Pierre Robillard Award awarded annually by the Statistical Society of Canada to recognize the best Ph.D. thesis in probability or statistics defended at a Canadian university during the previous year. In his time at the University of Waterloo, Professor Han served on five Ph.D. dissertation committees and was primary mentor for two Ph.D. students. At the University of Michigan, he has served on two Ph.D. dissertation committees, is currently serving on one Ph.D. dissertation committee, and is primary mentor to one doctoral student.

Research – Professor Han has made important contributions to the knowledge and methods available in the field of missing data analysis in medical- and public health-related research. He has also developed innovative statistical methods for data integration from multiple external and auxiliary sources. In another line of research, Professor Han and a colleague proposed to use an empirical likelihood approach to integrate aggregate data available from external studies with individual-level data from an internal study of interest, providing a flexible and efficient tool to

utilize information that is available from external sources without requiring the covariate distribution to be the same for the sample data and for the population that generates the auxiliary information. Professor Han's research has received external accolades, winning him the 2014 Byar Young Investigator Award from the American Statistical Association Biometrics Section. Since starting as an assistant professor at the University of Michigan, he has established cross-disciplinary scientific collaborations in food insecurity and nutrition intake, bipolar disorders, and kidney disease quality measurement development.

Professor Han has been successful in garnering funding for both his methodological and collaborative research. From 2014-2019, he was the principal investigator for a discovery grant from the Natural Sciences and Engineering Research Council of Canada (NSERC). He recently completed roles as the principal investigator or as a co-investigator on three grants that have ended within the last year. He currently is the University of Michigan subcontract principal investigator for the Gus Schumacher Nutrition Incentive Program funded by the United States Department of Agriculture (USDA) through the Gretchen Swanson Center for Nutrition in Nebraska, a co-investigator for the Prechter Longitudinal Study of Bipolar Disorder in collaboration with researchers from the University of Michigan Department of Psychiatry, and a co-investigator for the CMS funded Kidney Disease Quality Measure Development, Maintenance, and Support at the University of Michigan Kidney Epidemiology and Cost Center (KECC). He is also a co-principal investigator on an internally funded M-Cubed grant and has submitted a Faculty Early Career Development Program (CAREER) proposal to the National Science Foundation (NSF) as the principal investigator. Professor Han has published 22 papers in the peer-reviewed literature. He is the first or senior author on 20 of these papers (sole author on seven, first author on six, and second author or senior author on seven). His output of published papers has accelerated since joining the University of Michigan Department of Biostatistics in 2018, with 12 papers published during this three-year timeframe including five papers in 2020, and five papers in 2019. Among these 12 papers, he is sole author on two, first author on two, and either second or senior author on seven. Several of his publications have appeared in top-tier methodology journals including *Journal of the American Statistical Association*, *Biometrika*, *Journal of the Royal Statistical Society (Series B)*, *Biometrics*, and *Statistica Sinica*.

#### Recent and Significant Publications:

Han, P. (2014). "Multiply Robust Estimation in Regression Analysis with Missing Data."

*Journal of the American Statistical Association*. 109, 1159-1173.

Han, P. (2016). "Intrinsic Efficiency and Multiple Robustness in Longitudinal Studies with Dropout." *Biometrika*. 103, 683-700.

Han, P. (2016). "Combining Inverse Probability Weighting and Multiple Imputation to Improve Robustness of Estimation." *Scandinavian Journal of Statistics*. 43, 246-260.

Han, P., Kong, L., Zhao, J., and Zhou, X. (2019). "A General Framework for Quantile Estimation with Incomplete Data." *Journal of the Royal Statistical Society, Series B*. 81, 305-333.

Han, P., and Lawless, J. F. (2019). "Empirical Likelihood Estimation Using Auxiliary Summary Information with Different Covariate Distributions." *Statistica Sinica*. 29, 1321- 1342.

Service – Professor Han has made strong contributions to the department as a current member of the Biostatistics Candidacy Committee and previously served on the department’s Seminar/Brown Bag Committee and the Student Research Award Committee. Professor Han is also very active in service to the profession. He has served on the Eastern North American Region (ENAR) International Biometric Society Distinguished Student Paper Award Committee, American Statistical Association (ASA) Biometrics Section Byar Young Investigator Award Committee, and the 2019 International Chinese Statistical Association (ICSA) China Conference Program Committee. He has served as a referee for more than 20 journals in biostatistics/statistics, and has served as a scientific reviewer for the United States NSF and NSERC grants. Professor Han has also organized many invited talks at national and international statistical conferences and reviewed numerous manuscripts for statistical journals.

External Reviewers:

Reviewer A: “I would wholeheartedly support the advancement of Dr. Peisong Han to the rank of Associate Professor with tenure in the University of Michigan Department of Biostatistics. He is clearly a first-rate scholar who would unquestionably qualify for a similar advancement or appointment in my home institution and who can be expected to enhance the reputation of the University of Michigan into the distant future.”

Reviewer B: “Dr. Han is a highly productive [junior] researcher and has demonstrated his strong capability as an independent researcher. He has made significant contributions and impact to the field of biostatistics. His work on robust methods for handling missing data is outstanding. The problems that he works on are important and his work is original and of very high quality. The quality, quantity, and caliber of his research as an Assistant Professor demonstrate great success, growth, and independence for promotion to Associate Professor with tenure. In addition, he provided excellent service to our profession. I place Dr. Han among the top in his peer group in biostatistics. His work would meet the requirements for someone being considered for promotion and tenure at my institution. I expect him to continue to be productive and to become a leader in the field of biostatistics. Given my overall impression of Dr. Han’s performance and contribution, I strongly support this proposed promotion to Associate Professor with tenure without any reservation.”

Reviewer C: “I believe that Dr. Han clearly exceeds the standard listed in the promotion criteria and I would support him to be promoted to associate professor without any hesitation.”

Reviewer D: “...confirm my strong belief that Dr. Han is a top scholar who has already made significant research contributions in statistics. He stands out for his creativity as well as his mathematical rigor. In other words, Peisong Han is a rising star in statistical sciences. In light of the excellence of his research, his HQP training, the quality of his teaching and his overall academic accomplishments, I very strongly endorse Dr. Han's promotion to the rank of Associate Professor. There is no doubt in my mind that Dr. Han would easily obtain the promotion in my department and in every comparable department in...”

Reviewer E: “I have read the promotion packet you sent for Dr Peisong Han, and I am able to enthusiastically recommend him for promotion....My institution does not have tenure, but there

is no question that Dr Han would be promoted to Senior Lecturer, the equivalent rank in our system, typically occurring 5-7 years after the initial faculty-level appointment.”

Reviewer F: “Dr. Han is successful in contributing novel statistical methods, which have significant impact on biostatistics and public health. His cutting-edge research findings in the fields he works in have been highly acclaimed and widely accepted by the international scientific community of biostatistics, as illustrated by the large number of honors and awards that he has received in a relatively short span of time. I can therefore say for sure that Dr. Han has established himself as a top scientist in his field. I would like to offer my strongest support for his promotion.”

Reviewer G: “Dr. Han works on interesting and subtle problems that come up from the way data really are, which can be quite different from the way our most popular models think they are. He’s adventurous. I think that his ideas and methods are important for biostatistics today and I also think that people will find those same problems in other areas later. He also consistently wins honors for his teaching. I think it is clear that Michigan should promote him to tenure.”

Reviewer H: “Dr. Han is quite visible in developing novel statistical methods for missing data, robust statistics, data integration, and cutting-edge applications for important scientific problems. I have no doubt that Dr. Han is well-qualified to be promoted as a tenured associate professor at U. of Michigan, and his qualifications would also entitle him to be appointed as a tenured associate professor in top research universities. I believe that he will continue to excel in his research fields, and will be a valuable member for your department.”

Summary of Recommendation:

Professor Han is a leading scholar in the analysis of missing data, theory of empirical likelihood, estimating equations, and data integration. He stands out for his creativity as well as his mathematical rigor, and is a rising star in statistical sciences. Professor Han has been a superb instructor, has made strong contributions to the department, and is very active in service to the profession. It is with the support of the School of Public Health Executive Committee that we recommend Peisong Han for promotion to associate professor of biostatistics, with tenure, Department of Biostatistics, School of Public Health.



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F. DuBois Bowman, Ph.D.  
Dean, School of Public Health

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