

## PROMOTION RECOMMENDATION

Approved by the Regents

May 15, 2008

The University of Michigan  
School of Public Health  
Department of Biostatistics

Michael R. Elliott, 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 [also being recommended for promotion to research associate professor, Survey Research Center, Institute for Social Research].

### Academic Degrees:

Ph.D	1999	University of Michigan
M.S.	1997	University of Michigan
B.A.	1985	University of Chicago

### Professional Record

2005-Present	Assistant Professor, Department of Biostatistics, University of Michigan
2005-Present	Research Assistant Professor, Survey Methodology Program, Survey Research Center, Institute for Social Research, Ann Arbor, MI
2005-Present	Adjunct Scholar, Biostatistics, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA
2000-2005	Assistant Professor of Biostatistics, Clinical-Educator, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, PA
2000	Visiting Professor of Biostatistics, Department of Biostatistics, University of Michigan School of Public Health, Ann Arbor, MI
2000	Visiting Research Scientist, University of Michigan Transportation Research Institute, Ann Arbor, MI
1995-1999	Research Assistant, Department of Biostatistics, University of Michigan, University of Michigan Transportation Research Institute, Ann Arbor, MI

### Summary of Evaluation:

Teaching: Professor Elliott has taught one course each year since he joined the Department of Biostatistics, which is consistent with a 50% appointment in ISR. He is an articulate presenter and conscientious teacher who obtained generally solid ratings for courses at Michigan and Pennsylvania, with the exception of one course, BIOS 651 in 2006. After this course, Professor Elliott took extensive steps to improve his teaching mechanics, obtaining advice from CRLT and taking a "Toastmasters" course to improve his skills in oration. His ratings when teaching this course in 2007 were considerably improved, and with additional work on his presentation skills, he is expected to develop into a strong classroom teacher. He has already been active in supervising doctoral students. He is currently chairing one committee and co-chairing two, and he previously chaired one and co-chaired one at the University of Pennsylvania. Professor Elliott brings his talents as an outstanding statistician and consultant to supervising students, and he excels in this activity.

Research: Professor Elliott's research record is truly outstanding for a person of his seniority. He currently has 66 publications, with 12 additional publications submitted. He is first author on 22 publications, including many in top statistics journals like *JASA*, *Biometrics* and the *Journal of the Royal Statistical Society*. At a time when competition for methodological grants in statistics is fierce, he has been extraordinarily successful in procuring research funding as a principal investigator, having been

awarded R01 and R03 grants from the National Cancer Institute, and four additional grants from NCI and the Census Bureau on which he is primary investigator. The latter include one contract in connection with the massive National Children's Study, where he plays a leadership role in statistics for a consortium of Michigan universities. A versatile and outstanding collaborator, he has lead-author publications in his areas of collaboration, including a number of papers in transportation research stemming from his collaborative work with Jean Shope at the UM Transportation Institute. His visibility in this area is evidenced by the fact that he was appointed to the editorial board of the *Journal of Safety Research*. His methodological research has mainly focused on inference from sample surveys, causal inference and missing data. Not only has Professor Elliott's methods research been superb, but his collaborative research has been remarkable.

#### Recent and Significant Publications:

- Elliott, M.R.,** Little, R.J.A., Lewitzky, S. (2000) Subsampling Callbacks to Improve Survey Efficiency. *Journal of the American Statistical Association*, 95: 730-738.
- Elliott, M.R.,** Raghunathan, T.E., Shope, J.T. (2002) The Effect of Age at Time-of-License and Duration of Licensure on Risk of Vehicular Crash: Parametric Analysis of Repeated Time-to-Event Measures. *Journal of the American Statistical Association*, 97: 420-431.
- Elliott, M.R.,** Kleindorfer, P.R., Lowe, R.A. (2003) The Role of Hazardousness and Regulatory Practice in the Accidental Release of Chemicals at US Industrial Facilities. *Risk Analysis*, 23: 883-896.
- Elliott, M.R.,** Little, R.J.A. (2005) A Bayesian Approach to 2000 Census Evaluation using A.C.E. Survey Data and Demographic Analysis. *Journal of the American Statistical Association*, 100: 380-388.
- Elliott, M.R.,** Davis, W.W. (2005) Obtaining Cancer Risk Factor Prevalence Estimates in Small Areas: Combining Data from the Behavioral Risk Factor Surveillance Survey and the National Health Interview Survey. *Journal of the Royal Statistical Society C: Applied Statistics*, 54: 595-609.
- Elliott, M.R.,** Ten Have, T.R., Gallo, J., Bogner, H.R., Katz, I.R. (2005) Use of Latent Class Models to Assist in Diagnoses using Emotional Affect Data. *Biostatistics*, 6: 119-143.
- Elliott, M.R.,** Joffe, M.M., Chen, Z. (2006) A Potential Outcomes Approach to Developmental Toxicity Analyses. *Biometrics*, 62: 352-360.
- Elliott, M.R.,** Arbogast, K.A., Durbin, D.R. (2006) A Latent Class Analysis of Injury Patterns Among Rear-Seated, Seat-Belted Children. *Journal of Trauma*, 61: 1244-1248.
- Elliott, M.R.,** Stettler, N. (2007) Using a Mixture Model for Multiple Imputation in the Presence of Outliers: The Child Obesity Project. *Journal of the Royal Statistical Society C: Applied Statistics*, 56: 63-78.
- Elliott, M.R.** (2007) Bayesian Weight Trimming for Generalized Linear Regression Models. *Survey Methodology*, 33: 23-34.
- Elliott, M.R.** (2007) Identifying Latent Clusters of Variability in Longitudinal Data. *Biostatistics*, 8: 756-771.

Service: For the department, Professor Elliott has more than fulfilled his departmental administrative responsibilities, particularly given that he has a joint appointment in ISR. Besides the usual committee responsibilities, he has played a leadership role in two exciting new department initiatives – assisting in the formation of Statcom, a student organization that offers pro-bono statistical consulting to the community, and acting as faculty advisor for the Michigan Student Symposium for Interdisciplinary Statistical Sciences, a student research conference organized jointly by the Departments of Biostatistics and Statistics, and the Survey Methodology Program.

In connection with his appointment as research assistant professor in ISR, Professor Elliott has served on the Summer Institute Advisory Committee for the Survey Research Center, and on the Executive Committee for the Survey Research Center. He has also served on the School of Public Health 2006 Symposium Planning Committee.

Professor Elliott has been active in organizing sessions for various international conferences (ICHPR 2008 Executive Committee Member; Methodology Section Program Chair, 2005 Joint Statistical Meetings; Survey Methodology Representative to ENAR 2004). He has been active as a reviewer of research grants for the American Cancer Society, NIH and NSF. Professor Elliott has also been an active reviewer for statistics journals and is an associate editor for the *Journal of Official Statistics*, a major outlet for survey research.

External Reviewers:

Reviewer (A): "He has a remarkable record of accomplishment in applications in a diverse set of areas including injury research, psychiatric clinical trials, and survey research. As well as bringing to bear his highly relevant and methodological expertise, he has also assumed very substantial project leadership responsibilities... I am confident that if he were in my department he would be regarded as ready for promotion to the rank of associate professor."

Reviewer (B): "Mike Elliott deserves very definitely promotion and tenure. If he were at the (writer's institution), he would have earned it very easily, possibly even a year or two earlier."

Reviewer (C): "In my judgment he is the strongest pre-tenure hire that the Biostatistics Department here has made in its decade of existence, and it is their loss and your gain that he chose to move to Michigan."

Reviewer (D): "Although I have not viewed Dr. Elliott in a classroom setting, I have seen him give lectures at Statistics Meetings on multiple occasions, and he is always the consummate professional. I have absolutely no reservation in saying that Dr. Elliott is a gem who was a great recruit for the University of Michigan, and who is clearly deserving of promotion."

Reviewer (E): "Dr. Elliott has clearly satisfied the requirements for promotion to Associate Professor. At my institution, his record would easily justify my strong recommendation for promotion; indeed I would be proposing an accelerated promotion for him."

Summary of Recommendation:

Professor Elliott is an outstanding and versatile biostatistician who has made significant methodological and substantive contributions. He is a solid teacher and excellent student mentor and is a contributor in many ways to the School, the University and the profession. I enthusiastically recommend that Professor Michael R. Elliott be promoted to associate professor of biostatistics, with tenure, Department of Biostatistics, School of Public Health.



Kenneth E. Warner  
Dean, School of Public Health

May 2008