

## PROMOTION RECOMMENDATION

Approved by the Regents

May 15, 2008

The University of Michigan  
School of Public Health  
Department of Biostatistics

Douglas E. Schaebel, 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	2002	University of North Carolina at Chapel Hill, Chapel Hill, NC
M.Sc.	1996	McGill University, Montreal, PQ
B. Math	1990	University of Waterloo, Waterloo, ON

### Professional Record:

2002-Present	Assistant Professor, Department of Biostatistics, University of Michigan, Ann Arbor, MI
1999-2002	Graduate Research Assistant, Dept of Biostatistics, University of North Carolina, Chapel Hill

### Summary of Evaluation:

Teaching: Professor Schaebel has demonstrated an excellence in the training and mentoring of students. He has taught each year since joining the department and, as judged by student evaluations, is an outstanding teacher. He obtained consistently high scores and his scores are improving. Scores for BIOS 523, his department's service course, were in the range 3.70-4.36 for Q1 and 4.02-4.53 for Q2. In two other courses he taught in the Biostatistics MS program (BIOS 650 and 675) his scores were outstanding (Q1 range 4.26-4.85, Q2 range 4.61-4.88). Despite these impressive scores, his statement indicates a strong desire to improve his teaching by making specific described changes.

In addition to didactic teaching, Professor Schaebel has mentored a number of doctoral students. Since arriving at the University of Michigan in 2002, he has served as the Ph.D. committee chair of two doctoral students, the co-chair of one, and as a dissertation committee member of five students from four different departments.

Research: Professor Schaebel has a prolific research record. He lists 14 publications on statistical methods and four more submitted, mainly in mainline statistics journals like *Biometrika*, *Biometrics*, and *Statistics in Medicine*. He has 47 collaborative papers published or in press; a noteworthy and unusual feature of his record is that he is the lead author on 17 of these collaborative publications. He has a funded R01 from NIH on survival analysis methods for organ failure data, and has significant long-term funding in transplant registry research.

Professor Schaebel's methodological research concerns methods for estimating the effect of time-dependent treatments, and methods for addressing problems in survival analysis and the analysis of recurrent events. In the best tradition of biostatistics methods research, it flows directly from his collaborative research on organ transplantation and other applications, and hence addresses real problems. His work on time-dependent treatments is motivated by his collaborative work to evaluate the survival benefit of organ transplantation, using observational data. He developed a method he termed "sequential stratification" for quantifying the survival benefit of repeat ECD kidney transplantation (Schaebel et al, *Biometrics* 2006). He later developed extensions of this method to yield causal parameters for estimating the effect of liver transplantation (Schaebel et al, *JASA* under review).

Professor Schaubel's collaborative research is with the Kidney Epidemiology and Cost Center (KECC) and Arbor Research Collaborative for Health (AR; formerly URREA), which funded a substantial component of his salary until his R01 grant was funded. His work on the Scientific Registry of Transplant Recipients is notable for its public health significance by improving approaches to allocating transplants. Much of his work at KECC/AR is self-initiated. His work on restructuring the liver allocation system is focused on maximizing the additional life-years gained through liver transplantation, by scoring wait-list patients in decreasing order of liver transplant survival benefit.

#### Recent and Significant Publications:

- Schaubel, D.E.** and Fenton, S.S.A (2000) Trends in mortality rates on peritoneal dialysis: Canada, 1981-97. *Journal of the American Society of Nephrology*, 11: 126-133.
- Schaubel, D.E.**, Stewart, D., Morrison, H., Zimmerman, D., Cameron, J., Jeffery J. and Fenton S. (2000) Sex inequality in kidney transplantation rates. *Archives of Internal Medicine*, 160: 2349-2354.
- Schaubel, D.E.**, Blake, P.G. and Fenton, S.S.A. (2001) Trends in CAPD technique failure rates: Canada: 1981-97. *Peritoneal Dialysis International*, 21: 365-371.
- Schaubel, D.E.**, Blake, P.G. and Fenton, S.S.A. (2001) Effect of renal center characteristics on mortality and technique failure on peritoneal dialysis. *Kidney International*, 60:1517-1524.
- Schaubel, D.E.** and Cai, J. (2004) Regression methods for gap time hazards of sequentially ordered multivariate failure time data. *Biometrika*, 91: 291-303.
- Schaubel, D.E.** (2005) Variance estimation for clustered recurrent event data with a small number of clusters. *Statistics in Medicine*, 24: 3037-3051.
- Schaubel, D.E.**, Dykstra, D.M., Murray, S., Ashby, V.B., McCullough, K.P., Dickinson, D.M., Hulbert-Shearon, T.E., Webb, R.L. and Wolfe, R.A. (2005) Analytical approaches for transplant research, 2004. *American Journal of Transplantation*, 5: 950-7.
- Schaubel, D.E.** and Cai, J. (2005) Semiparametric methods for clustered recurrent event data. *Lifetime Data Analysis*, 11: 405-425.
- Schaubel, D.E.** and Cai, J. (2005) Analysis of clustered recurrent event data with application to hospitalization rates among renal failure patients. *Biostatistics*, 6: 404-419.
- Schaubel, D.E.** and Cai, J. (2006) Rate/mean regression for multiple-sequence recurrent event data with missing event category. *Scandinavian Journal of Statistics*, 33: 191-207.
- Schaubel, D.E.**, Wolfe, R.A. and Port, F.K. (2006) A sequential stratification method for estimating the effect of an time-dependent experimental treatment in observational studies. *Biometrics*, 62: 910-917.
- Schaubel, D.E.** and Cai, J. (2006) Multiple imputation methods for recurrent event data with missing event category. *Canadian Journal of Statistics*, 34: 677-692.

Service: Professor Schaubel has been an energetic and helpful member of a number of departmental committees including the Candidacy and Admissions Committees, which are perhaps the most important and have the highest workload. On the Curriculum Committee, he played a key role in restructuring the biostatistics service course offerings by introducing a new course, BIOS 513, that is less intensive than the existing second course in biostatistics, BIOS 523. He has also served on the Seminar Committee and on a Junior Faculty Search Committee.

Professor Schaubel has been very active as a referee, and is an associate editor for the journal *Lifetime Data Analysis*, a leading outlet for research in survival analysis. He is also active with the International Biometrics Society, and is currently a member of the Regional Advisory Committee, the major policy committee for the eastern region of that society.

External Reviewers:

Reviewer (A): "... [H]e has compiled a very impressive research record, both in publications dealing with statistical methodology, and in collaborative research. ... [His reports of] methodological research areas, collaborative research, and advising are well-written, informative and impressive in its scope."

Reviewer (B): "... Professor Schaubel has certainly achieved national, and likely international, recognition for his work on the statistical analysis of recurrent events."

Reviewer (C): "My ultimate testimonial to Schaubel's work is that I have read virtually all his statistical papers, not because I know him, but because they have new and interesting things to say in important areas. ... Overall, his record is exceptionally good for someone whose Ph.D. was as recent as 2002. ... He is clearly a mature thinker, with a comprehensive, wide-ranging research agenda and a lot of novel ideas for students to explore."

Reviewer (D): "Dr. Schaubel has created an impressive research and educational career at the University of Michigan. He is an excellent statistician who continues to make important contributions to statistical theory and to challenging and important scientific applications. He has a national reputation and ranks near the top of his professional cohort."

Reviewer (E): "It is no mean achievement to secure funding for a full R01 in biostatistical methodology only three years after the PhD. Dr. Schaubel has a growing portfolio of methodologic publications in top peer-reviewed journals."

Reviewer (F): "... I am extremely impressed with his productivity. ...the quality of these papers are excellent. ... The research problems he is working on are also non-trivial and important both theoretically and from a practical standpoint...."

Reviewer (G): "In summary: Doug Schaubel has an outstanding overall record for a biostatistician of his vintage and I strongly support his promotion to the rank of Associate Professor with tenure."

Summary of Recommendation:

Professor Schaubel is an outstanding teacher and mentor and a highly productive researcher. He has established both national and international recognition. I am pleased to recommend that Douglas E. Schaubel be promoted to associate professor of biostatistics, with tenure, Department of Biostatistics, School of Public Health.



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Kenneth E. Warner  
Dean, School of Public Health

May 2008