N-C NSF-Census Research Network R-N Newsletter Vol. 3, Issue 3

Alumni Working in Public Policy, Economics, and Statistics Reflect on Program Experiences

To date, the NSF-Census Research Network has funded the research of more than 50 **graduate and post-doctoral students**. As we reconnect with these alumni for an update on their careers, we are getting a clearer picture of the program's impact on their lives, and also how their NCRN experience may have had an influence on their career choices or current job placement. This is the second story in a series on NCRN alumni and their reflections on being in the NCRN program. See the previous story in the NCRN Newsletter **Vol. 3, Iss. 2**.

Aaron Flaaen, who received his doctorate in Economics in 2015 from the **University**

of Michigan node of the NCRN, with a thesis on multinational firms that relied in part on confidential Census Bureau data. He now works as economist at the Federal Reserve Board of Governors. His current placement is in

part a result of his NCRN experience, Flaaen said. "The NCRN provided a great forum for data-oriented people to provide focused feedback on the empirical sections of my research" (Flaaen presented in the

NCRN Virtual Seminar in 2014). "Nowhere else did my data work get such focused attention, and the paper benefited tremendously," he said. "I continue to value the connections with Census and other researchers that I made via this program."

Laura Brandimarte, who received her doctorate in Public Policy & Management, was

both a PhD student and a post-doc in the Carnegie-Mellon University node of the NCRN from 2007-2015. After she completed her graduate training, she headed to the University of Arizona, where she is an Assistant Professor

in Management Information Systems. In the NCRN program, she had the opportunity to visit Census Headquarters, to **present at the NCRN meetings**, and in doing so, to "connect with great statisticians," she said. Brandimarte says she has always focused on interdisciplinary research. Overall, she said, her NCRN experience was positive, though she noted that the job opportunities that NCRN graduate training opens at the Census Bureau are reserved for U.S. citizens, limiting her and other foreign students' ability to benefit from that particular NCRN benefit.

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Zachary Seeskin, who received his doctorate in Statistics, was in the Graduate Training program from 2012-16 at Northwestern University, a node of the NCRN. After his graduate training, he

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joined **NORC** at the University of Chicago as a statistician. Seeskin says there were many benefits to being in the NCRN program, including "being introduced to the rich set of research questions facing the federal statistical system, which led me to pursue research in the field." He noted that "NCRN definitely had a major impact on my career trajectory. At NORC, we conduct surveys for a range of clients including federal statistical agencies. One of my main focuses at NORC is the Survey of Doctorate Recipients (SDR), an important data source on the country's science, engineering, and health workforce from the National Science Foundation. My team works on a number of the statistical aspects of conducting the SDR, including adaptive design, imputation, weighting, and variance estimation. NCRN very much helped to pique my interest in government statistics and prepare me for my career at NORC."

Seeskin's dissertation work focused on two topics. "For the first, I studied the **benefits of census accu-**

racy for two important census uses, apportionment and allocations of funds, in joint work with Prof. Bruce Spencer. Cost-benefit analysis for federal statistics is a major focus of the Northwestern node. For the second topic, I evaluated a commercial data source for use to improve American Community Survey estimates of housing characteristics." Seeskin's work was in part supported by a Census Bureau Dissertation Fellowship in 2015-2016.

"NCRN had a very positive impact on my views of a career at the Census Bureau. The program allowed me both to work on research of importance to Census and to meet and learn from many dedicated staff members at the Census Bureau. [The] Census Bureau Dissertation Fellowship in 2015-2016 [...] was a tremendous experience enabling me to work closely with Census Bureau staff for my dissertation research."

By Dory Knight-Ingram

Node News

Nancy Potok Named New Chief Statistician of the U.S.

Nancy Potok, the Census Bureau's Deputy Director



and Chief Operating Officer since 2012, will be starting a new job as Chief Statistician of the United States and Chief of the Statistics and Science Policy Branch in the U.S. Office of Management and Budget (OMB). Katherine Wallman, the former Chief Statistician, recently retired

from the OMB position she had held since 1992.

Dr. Potok has had an illustrious career in public, private and nonprofit sectors. She has been a strong supporter of the NCRN. As Chief Statistician, she will lead the Federal Statistical System for the nation.

Sign up open for NCRN Meeting Spring 2017

The NCRN Spring 2017 Meetings will take place at the US Census Bureau in Suitland, Maryland on Monday, April 24, 2017 from 8:30 AM – 3:30 PM EDT. You can register here on Eventbrite.com, or find more information here.

Node News (Continued from page 2)

John Eltinge is appointed Assistant Director for Research and Methodology at the Census Bureau

Dr. John L. Eltinge has been appointed as the new Assistant Director for Research and Methodology. John previously served as the Associate Commissioner for Survey Methods Research at the Bureau of Labor Statistics (since 2004). His appointment became effective December 11, 2016.

John has previously worked as Senior Mathematical Statistician at the BLS and associate professor with tenure in the Department of Statistics at Texas A&M University, where he supervised numerous doctoral and masters' students. He is a member of the Federal Committee on Statistical Methodology; a fellow of the American Statistical Association; an associate editor for the Journal of Official Statistics and for the Survey Methodology Journal; the co-chair of the advisory board for Journal of Survey Statistics and Methodology; and a member of the Committee on Fellows of the American Statistical Association. He previously served as the President of the Washington Statistical Society; the overall program chair for the 2003 Joint Statistical Meetings; and an associate editor for the Journal of the American Statistical Association and for The American Statistician.

Census Bureau Awards Cooperative Agreements to Georgetown University and Purdue University

The U.S. Census Bureau awarded two cooperative agreements to research teams at Georgetown University and Purdue University. These teams of university

ty-based researchers are at the forefront of the emerging field of privacy-preserving data analysis, and their efforts will assist the Census Bureau in ensuring we continue to be a leader in protecting confidential information. Read more on the **original post**.

Update on next INFO7470 class (2017)

Several potential participants have asked about when INFO7470 will be on the program again. This post aims to provide guidance on that. In short, the next version is likely to be in the Fall of 2017.

"Understanding Social and Economic Data" (aka INFO7470) is designed to provide students a detailed overview of the US federal statistical system, where data comes from and how it can be used for research. The course also aims to teach students basic and advanced techniques for acquiring and transforming raw information into social and economic data. More information can be found in the **Summary**. The course is taught as a mixture of self-guided online videos (MOOC-style) together with in-classroom discussions of the material. Students from multiple universities, scattered across the country and participating via videoconference, and from multiple domains (economics, demography, geography, statistics) contribute to the discussion.

INFO7470 was last scheduled in the **Spring of 2016**. At the time, we used recordings from previous years, together with in-class discussions, interspersed with live lectures. edX served as the online platform for discussions and exercises. About 100 students audited or took the class.

Based on feedback we got from students and faculty, and our own analysis of how the class was received, we intend to revise both content and form somewhat, including putting together a text book which

Node News (Continued from page 3)

can serve as a framework to have some of the online material more text oriented, interspersed with old and new video.

One of the ideas we are pursuing is to more formally split the class into two components, one a more institutional analysis of the statistical system, the other a more technical approach on how to use data produced by the system. This was already present in the current syllabus (the institutional aspect goes up through Lecture 9, approximately), but we want to make that a stronger component, allowing us to

better address a very diverse audience.

We also are aiming to make the class more participatory. One of the strengths of the class (so we think) is the diversity and experience not only of the presenters, but also the participants. We will devise methods to better incorporate that experience into an engaging lecture series.

We are not yet ready with that revision. We are currently planning to pilot the (gently) revised version in the Fall of 2017.

Other News of Interest Applications due April 1 for Wray Jackson Smith funds

The Wray Jackson Smith Scholarship (WJSS) was created to honor the memory of a founding member of the GSS and a long-time contributor to federal statistics. The WJSS is intended to encourage young statisticians to consider a career in government service. The award provides funding of \$1,000 to be used in ways that will advance the recipient's exposure to or experience with the application of statistics to problems relevant to any level of government. Materials should be emailed to Jenny Guarino: jenny. guarino@dot.gov. Alternatively, applications can be mailed to:

Jenny Guarino
US Department of Transportation
Federal Motor Carrier Safety Administration
1200 New Jersey Ave S.E.
Washington, DC 20590

The award winner will be announced in May of 2017. All applicants will be notified by e-mail.

Gertrude M. Cox Award Committee seeking nominees for the 2017 Award

The Gertrude M. Cox Award Committee is seeking nominees for the 2017 Gertrude M Cox Award.

- In memory of Dr. Cox (1900-1978), one of the founders of modern statistics, President of the American Statistical Association (1956)
- In recognition of early- to mid-career statisticians who have made significant contributions to areas of statistics in which Dr. Cox worked
- Sponsored by the Washington Statistical Society and RTI International: http://washstat.org/awards/cox award 2017.html.

The award annually recognizes a statistician in early to mid-career (less than 15 years after terminal degree) who has made significant contributions to one or more of the areas of applied statistics in which Gertrude Cox worked: survey methodology, experimental design, biostatistics, and statistical computing. Please email your nominations to Karol Krotki (kkrotki@rti.org) by 28 February, 2017 with a supporting statement and cv (or link). If you have previously nominated a candidate and you wish that nomination to be reconsidered, please update the supporting materials.

Publications

The following are the most recent additions to publications produced by the research nodes within NCRN. A comprehensive list can be found here. (http://www.ncrn.info/documents/bibliographies)

Wiederspan, Jessica, Elizabeth Rhodes, and Luke H. Shaefer. "Why Social Workers Should Consider a Negative Income Tax." Journal of Poverty (forthcoming).

Sadinle, M., and J. P. Reiter. "Itemwise conditionally independent nonresponse modeling for multivariate categorical data." Biometrika (2017).

Murray, J. S., and J. P. Reiter. "Multiple imputation of missing categorical and continuous outcomes via Bayesian mixture models with local dependence." Journal of the American Statistical Association 111, no. 516 (2017).

Vilhuber, Lars, Ian Schmutte, and John M. Abowd. **Proceedings from the 2016 NSF–Sloan Workshop on Practical Privacy**. Cornell University Preprint 1813:46197, 2017, available at http://hdl.handle.net/1813/46197.

McClure, D., and J. P. Reiter. "Assessing disclosure risks for synthetic data with arbitrary intruder knowledge." Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 109-126. DOI: 10.3233/SJI-160957, available at http://content.iospress.com/download/statistical-journal-of-the-iaos/sji957.

Si, Y., J. P. Reiter, and D. S. Hillygus. "Bayesian latent pattern mixture models for handling attrition in panel studies with refreshment samples." Annals of Applied Statistics 10 (2016): 118-143. DOI: 10.1214/15-AOAS876, available at http://projecteuclid.org/euclid.aoas/1458909910.

DeYoreo, Maria, and Jerome P. Reiter. **Bayesian mixture modeling for multivariate conditional distributions.** ArXiv 1606.04457, 2016, available at http://arxiv.org/abs/1606.04457.

DeYoreo, Maria, and Athanasios Kottas. **A Bayesian nonparametric Markovian model for nonstationary time series.** ArXiv 1601.04331, 2016, available at http://arxiv.org/abs/1601.04331.

Upcoming Events

NCRN Meeting, Spring 2017, at US Census Bureau HQ

Sign up is now open for the NCRN Spring 2017 Meetings. The meetings will take place at the US Census Bureau in Suitland, Maryland on Monday, April 24, 2017, from 8:30 AM – 3:30 PM EDT.

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