NCRN Alumni Consider Program's Impact

To date, the NSF-Census Research Network has funded the research of more than 50 post-doctoral students. As we reconnect with these alumni for an update on their careers, we are getting a good 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 first in a series on NCRN alumni and their reflections on being in the NCRN program.

Tarek Baghal (Survey Research) was in the postdoctoral training program in 2012, at the NCRN node at the University of Nebraska-Lincoln's Survey Research and Methodology Program (SRAM). After NCRN, he went to the UK, where he now works at the University of Essex as a Research Fellow. Baghal says his current placement was "somewhat" a result of NCRN experience. In addition to his education, the additional experience with NCRN furthered his career as a survey methodologist, his role at Essex. Baghal said he gained experience leading research projects and producing academic outputs, both key in his current position.

Antje Kirchner (Survey Research and Methodology) was in the postdoctoral program from 2013-2016 at the University of Nebraska-Lincoln. Post NCRN, she stays affiliated with the University of Nebraska-Lincoln as an Adjunct Research Assistant Professor. Her current placement is at RTI International, where she contributes as a Research Survey Methodologist. Kirchner says her current placement is a result of her NCRN experience. Among the benefits of going through the NCRN program are "new research opportunities and (interdisciplinary) collaboration as post-doctoral research associate." Her NCRN experience "significantly broadened my scope of interest and experience," Kirchner said.

Mikhail Popov (Statistical Practice) was a graduate student in 2012-2013 at Carnegie-Mellon University's NCRN node. After graduation, Popov went to the University of Pittsburgh Medical Center to conduct research on Alzheimer's disease. He is currently a Data Scientist at Wikimedia Foundation, where he researches Wikipedia users' demographics, browsing patterns, and searching behavior. Among the benefits of having been in the NCRN program, Popov said, is "exposure to statistical methods (that weren't taught in classes), differential privacy, and networking with people." His experience in the NCRN network, where he was exposed to the Census Bureau's con-

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cerns about privacy, were relevant to his current position, Popov said. "In my current work at WMF, we deal with issues of privacy and anonymity a lot, which is also critical to Census work."

Stay tuned for more stories about what we're finding to be a very heterogeneous group of NCRN alumni, and for more details about the network's ability to affect their choices and their view of their roles now and into the future.

By Dory Knight-Ingram

Current and former graduate students network at the NCRN Spring 2016 dinner. Pictured, left to right, are: Unidentified, Kirstin Early (CMU), William Sexton (Cornell), Flavio Stanchi (Cornell), and Samuel Ventura (CMU).

NCRN Fall 2016 Meeting

On October 24, 2016, the Principal Investigators and Senior Researchers from the NCRN nodes met with Census Bureau staff, and presented on a number of research topics in the Census Bureau's auditorium. About 40 participants, including attendees from a variety of federal statistical agencies, attended the scientific presentations. The NCRN Coordinating Office's Principal Investigator Lars Vilhuber and John Thompson, Director of the U.S. Census Bureau, welcomed the participants. After the scientific presentations and meetings between NCRN members and Census staff, a lively discussion was continued at the now-traditional dinner at the Lebanese Taverna on Connecticut Avenue. The next NCRN Meetings are currently being planned for the Spring of 2017. We look forward to welcoming node members and the interested public for further discussions and presentations on shared topics. The following summaries of the morning and afternoon scientific presentations were prepared by graduate students attending the meetings.

Morning Session

With contributions by Jinyoung Lee and Kirstin Early

Audit Trails, Parallel Retrieval, and the SIPP
Jinyoung Lee, University of Nebraska

Jinyoung Lee presented research on the Event History Calendar (EHC) interviewing method that has been integrated into the reengineered Survey of Income and Program Participation (SIPP). An EHC is a flexible, conversational interviewing tool designed to collect more accurate and valid retrospective reports by allowing respondents to use their own event histo-

ries as spontaneous cues for retrieving other thematically and temporally interrelated event histories. By focusing on specific navigational behaviors and their order of occurrences found in audit trails from the 2013 SIPP-EHC field test, Jinyoung demonstrated that many respondents are engaged in multidirectional navigation across topics and periods, not following the order of questions listed in the questionnaire during EHC interviews.
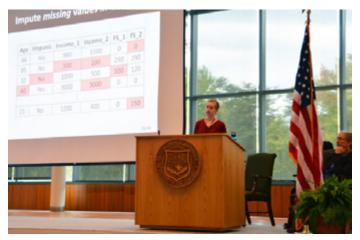
Adaptive Survey Design, with Application to the SIPP
Kirstin Early, Carnegie-Mellon University

Following Jinyoung, Kirstin Early presented on

NCRN Fall 2016 Meeting (Continued)

"Adaptive Survey Design, with Application to the SIPP." Collecting data from individuals can be useful to the individuals (by providing them with personalized predictions) and the data collectors (by providing them with information about populations). However, collecting these data is costly: answering survey items, collecting sensed data, and computing values of interest deplete finite resources of time, battery life, money, etc. Dynamically ordering the items to be collected, based on already known information (such as previously collected items or paradata), can lower the costs of data collection by tailoring the information-acquisition process to the individual. Kirstin presented a framework for an iterative dynamic item ordering process that trades off item utility with item cost at data collection time. The exact metrics for utility and cost are application-dependent, and this framework can apply to many domains. The two main scenarios she and her co-authors **Steve Fienberg (CMU)** and **Jen Mankoff (CMU)** consider are (1) data collection for personalized predictions and (2) data collection in surveys. The authors illustrate applications of this framework to multiple problems ranging from personalized prediction (energy estimates for prospective tenants, stress prediction in college students, and device identification for mobile interactions) to government survey collection (SIPP). They compare data quality and acquisition costs of their method to fixed order approaches and show that their adaptive process obtains results of similar quality at lower cost. For certain scenarios, the authors show that features are selected differently in context, for instance when mobile devices used for measuring outcomes are charging or not (the computational burden and concomitant battery drain are modeled as a cost). In the case of SIPP, the utility function may include the quality of imputations, or the reduction in drop-out rates, and can take into account cognitive burden of questions. The SIPP Synthetic Beta was used to simulate the quality of imputations relative to a baseline. The authors hope to be able to apply their models to paradata from the SIPP in the future.

Kirstin Early, of the Carnegie-Mellon University node of the NCRN, speaks at the NCRN Fall 2016 Meeting.

Jason Fields, the SIPP Survey Director, discussed the contribution of both papers to the survey's further development. He also touched on future research topics, including the relation of multidirectional navigation and quality of EHC interviews with specific household composition, applications of interviewing dynamics to data collection in later waves, and personalized interventions based on occurrence of specific navigational patterns.

Afternoon Session

With contributions by Dhiren Patki, Sylverie Herbert, and Flavio Stanchi

Naturally Occurring Data for Measuring Spending, Income, Assets, and Debt
Matthew Shapiro, University of Michigan

Matthew Shapiro reported preliminary results from a project that seeks to build a novel dataset: a real-time weekly index of spending and income using "naturally occurring" account data. These data come from a financial app that consolidates bank account and

credit card information for a large number of users.

There are several advantages of collecting spending and income data in this fashion: First, it frees up scarce survey resources that would be better deployed to elicit harder-to-measure constructs like preference parameters. Second, it provides error-free data at a high frequency and at zero marginal cost. Third, it provides a very large sample of individuals, which is useful for inference, while also allowing for sub-sample analyses that would not be feasible using conventional data sets like the Panel Study of Income Dynamics (a survey of a representative sample of US individuals and families, run by the University of Michigan).

The time-series constructed from the app data would provide a useful complement to survey data, which are often comprehensive but self-reported and characterized by low frequency, or to administrative records, which lack measures of expenditures, portfolio or income.

However, there are also several drawbacks to the data: for instance, the user base is not a random sample of the population; no direct information on demographics is available; spending is not pre-categorized; and the data are not organized for research purposes. Using a sub-sample with demographics, Shapiro and his co-authors find that the user base is slightly younger, more male, and less educated than the population.

In addition, the research team still faces some challenges: The sample period is quite short (start in January 2012), and there may be seasonality effects.

Using these data, the authors examine some classic macroeconomic questions about consumption behavior. In their first application, they focus on individuals who receive wage incomes from the federal government to study the effect of the 2013 government shutdown as a negative income shock. They find that consumption expenditure for affected individuals falls by about 50%, while credit card spending stays flat and credit card balances are paid off at a slower rate. In a second application, they study the paycheck

cycle and find that the excess sensitivity of consumption to predictable changes in income are much smaller once spending on committed consumption is removed.

Finally, the authors build a monthly time series of spending and income using a balanced panel of 100,000 individuals. Their findings suggest that these app-based series are more volatile than the Census Bureau series on retail spending and the Bureau of Economic Analysis series of income.

Scanner Data and Economic Statistics: A Unified Approach
David Weinstein, Columbia University

Big data has the potential to transform economic measurements (in terms of volume, variety, velocity, and veracity). David Weinstein shows a way to do this using data on bar-coded products. The use of barcode data presents some challenges: product turnover is very high, so the set of goods is constantly changing; all firms sell multiple products; different price indices are used to generate different cost-of-living measures.

The presentation focused on these price indices. The measurement of price indices has always been problematic because the set of goods being consumed has changed both due to prices and due to tastes. For example, 40% of spending today is on goods that were created in the last four years, and 20% of spending is on goods that will not survive the next four years. To address this concern Weinstein's project combines economic theory and rich scanner data to deliver a framework for consistent price index measurement.

Using a constant elasticity of substitution (CES) utility function and data where prices and quantities of goods are matched at the unit level, Weinstein illus-
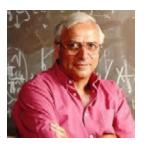
NCRN Fall 2016 Meeting (Continued)

trates how we can separately account for the effect of price changes and taste changes on the quantity consumed. Furthermore, he shows that commonly used price indices are, in fact, special cases of the unified price index (UPI) that he derives.

The UPI consistently estimates welfare and demand when demand for each good is time-varying. It satisfies money-metric utility, allows for entry and exit, and can be generalized to a heterogeneous group of consumers. Moreover, all the "classics" indices can then be seen as particular versions of the UPI.

Applying his new methodology, Weinstein finds that large increases in the quantity of Chinese exports to Chile were driven by tastes for quality rather than just low prices.

Node News

Carnegie-Mellon/NCRN Mourn Loss of Stephen Fienberg

Stephen Fienberg, eminent statistician active in the NSF-Census Research Network, among so many other networks and places, passed away in his sleep on December 14, 2016, after a long battle against cancer. An obituary can be found **here**.

Fienberg (Carnegie-Mellon University) was one of two recipients of the **2016 Zellner Medal**, awarded by the **International Society of Bayesian Analysis**. The Zellner Medal honors Arnold Zellner, one of the founders of ISBA and ISBA's first president. The purpose of the Zellner Medal is to recognize ISBA members who have rendered exceptional and distinguished service to ISBA over an extended period of time, and whose contributions have had an impact on the society beyond the time of his or her incumbency.

On Saturday, Oct 15, 2016, Carnegie-Mellon University and many friends and colleagues celebrated Steve Fienberg in Pittsburgh, PA. Several academic presentations were made, including the inaugural "Fienberg Lecture" given by Stephen Stigler on "Bayes, Price, and Collegiality in Scientific Dis-

course". Reflections by colleagues and friends on Steve's life and life with Steve were interspersed throughout the day. A cocktail reception ended the day.

The world of statistics has lost one of its leading members, and he will be dearly missed.

Duke/National Institute of Statistical Sciences/NCRN Mourn Loss of Dr. Larry Cox

We are saddened to report that Dr. Larry Cox, a key participant in the Duke/NISS NCRN node, passed away on June 1, 2016. Larry was one of the most influential researchers in statistical disclosure control, data editing, and official statistics. He made fundamental contributions to methodology for protecting tabular data that profoundly impacted the practice of statistical agencies and inspired generations of researchers. Of particular note, Larry came up with the idea of fusing methods from operations research and statistical modeling to improve how agencies do edit-imputation. This idea led to several published papers, including recently in JASA and JBES. His wisdom, intellect, and good nature will be sorely missed.

Maria DeYoreo Wins Savage Award

Duke/NISS postdoc Maria DeYoreo is the 2016 winner of the highly prestigious Savage Award in Applied Methodology for best doctoral dissertation. Congratulations, Maria!

Bill Eddy Receives the 2016 Jerome Sacks Award for Outstanding Cross-Disciplinary Research

Nell Sedransk, Director of NISS, made the announcement at the NISS JSM reception that Bill Eddy from Carnegie Mellon is the winner of the 2016 Jerome Sacks Award for Outstanding Cross-Disciplinary Research.

The prize recognizes sustained, high-quality, cross-disciplinary research involving the statistical sciences, and is accompanied by an award of $1,000. For more information and to see the list of previous winners, please see http://www.niss.org/about/awards/jerome-sacks-award-outstanding-cross-disciplinary-research.

John M. Abowd Receives the Julius Shiskin Memorial Award

John M. Abowd, NCRN Cornell and now Associate Director for Research and Methodology and Chief Scientist at the U.S. Census Bureau, is the 2016 Recipient of Julius Shiskin Memorial Award for Economic Statistics. He received the award on September 6, 2016, giving the WSS Julius Shiskin Memorial Award Seminar on "How Will Statistical Agencies Operate When All Data are Private?"

CMU PhD Student Maria Cuellar Receives the 2016 Wray Jackson Smith Award

CMU PhD student Maria Cuellar received the 2016 Wray Jackson Smith Award in April 2016.

Each year, the Government Statistics Section (GSS) and the Social Statistics Section (SSS) of the American Statistical Association (ASA) make a scholarship award in memory of Wray Jackson Smith, a founding member of the Government Statistics Section and long-time contributor to Federal statistics. The Wray Jackson Smith Scholarship (WJSS), co-sponsored with the Washington Statistical Society, the Caucus for Women in Statistics, Harris-Smith Institutes, Mathematica Policy Research, and Synectics for Management Decisions, Inc., is intended to reward promising young statisticians for their diligence, thereby encouraging them to consider a future in government statistics. The WJSS Award provides funding of $1,000 for use in exploring any of a broad number of opportunities for furthering the development of a career related to government statistics.

Previous recipients include Mauricio Sadinle (2014), who was also a CMU graduate student at the time, and is now a post-doc at Duke University.

Jerry Reiter Receives 2016 Duke Outstanding Post-doctoral Mentor Award

Jerry Reiter [Duke University/National Institute of

Node News
(Continued)

Statistical Sciences (NISS)] was awarded the 2016 Outstanding Postdoctoral Mentor Award at Duke University. The award is given annually to one mentor of postdoctoral associates at Duke University.

Russell Sage Foundation to Publish Article on Childhood Poverty Cures

Recent work by **Luke Shaefer**, of the University of Michigan School of Work, has been picked up by the **New York Times**.

A forthcoming article for the Russell Sage Foundation, by Shaefer and other experts on poverty and child well-being, proposes a new approach to dealing with childhood poverty in the United States: provide $250 a month for every child in the country.

NCRN supported Dr. Shaefer's implementation of the Census alternative poverty measures in the PSID, as well as other research on poverty.

Wikle Named Curators' Distinguished Professor at University of Missouri

Chris Wikle, professor of statistics, was named a University of Missouri **Curator's Distinguished Professor of Statistics**! This is an extremely prestigious designation that is only conveyed to a small group of outstanding University of Missouri faculty.

Bates Gives the Morris Hansen Lecture

Nancy Bates, Senior Researcher for Survey Methodology, U.S. Census Bureau and the NCRN Coordinator at the U.S. Census Bureau, gave the 26th Annual Morris Hansen Lecture on "Hard-to-Survey Populations and the U.S. Decennial Census" on November 29, 2016. The prestigious Morris Hansen Lecture was established by the Washington Statistical Society in honor of Morris Hansen, a pioneering survey statistician who worked at the U.S. Census Bureau and Westat. For more information on Nancy's talk, see **https://www.nass.usda.gov/Education_and_Outreach/Morris_Hansen/2016poster.pdf**. Of note, Stephen Fienberg gave the 2013 Morris Hansen Lecture.

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)*

De Yoreo, M., and A. Kottas. **"A Bayesian nonparametric Markovian model for nonstationary time series."** Statistics and Computing (forthcoming).

Sadinle, M. **"Bayesian estimation of bipartite matchings for record linkage."** Journal of the American Statistical Association (forthcoming).

Hahn, P. R., J. S. Murray, and I. Manolopoulou. **"A Bayesian Partial Identification Approach to Inferring the Prevalence of Accounting Misconduct."** Journal of the American Statistical Association 111 (forthcoming): 14-26. DOI: 10.1080/01621459.2015.1084307, available at http://www.tandfonline.com/doi/full/10.1080/01621459.2015.1084307.

Manrique-Vallier, Daniel, and Jerome P. Reiter. **"Bayesian Simultaneous Edit and Imputation for Multivariate**

Publications (Continued)

Categorical Data." Journal of the American Statistical Association (forthcoming). DOI: 10.1080/01621459.2016.1231612, available at http://dx.doi.org/10.1080/01621459.2016.1231612.

Fosdick, B. K., M. De Yoreo, and J. P. Reiter. **"Categorical data fusion using auxiliary information."** Annals of Applied Statistics (forthcoming).

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

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 (forthcoming).

De Yoreo, M., J. P. Reiter, and D. S. Hillygus. **"Nonparametric Bayesian models with focused clustering for mixed ordinal and nominal data."** Bayesian Analysis (forthcoming).

Singleton, A., and S. E. Spielman. **"An Open Source Geodemographic Framework For Addressing Uncertainty In The American Community Survey Census Tract-level Estimates."** The Annals of the Association of American Geographers(forthcoming).

Kim, H. J., J. P. Reiter, and A. F. Karr. **"Simultaneous edit-imputation and disclosure limitation for business establishment data."** Journal of Applied Statistics (forthcoming).

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

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.

Schmutte, Ian M.. **"Differentially private publication of data on wages and job mobility."** Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 81-92. DOI: 10.3233/SJI-160962, available at http://content.iospress.com/articles/statistical-journal-of-the-iaos/sji962.

Chen, Y., A. Machanavajjhala, J. P. Reiter, and A. Barrientos. **"Differentially private regression diagnostics."** In IEEE International Conference on Data Mining., 2016.

Fusaro, V., and Luke H. Shaefer. **"How Should We Define Low-Wage Work? An Analysis Using the Current Population Survey."** Monthly Labor Review (2016), available at http://www.bls.gov/opub/mlr/2016/article/pdf/how-should-we-define-low-wage-work.pdf.

Abowd, John M.. **How Will Statistical Agencies Operate When All Data Are Private?**. Cornell University Preprint 1813:44663, 2016, available at http://hdl.handle.net/1813/44663.

Publications (Continued)

Schifeling, T. S., and J. P. Reiter. **"Incorporating marginal prior information into latent class models."** Bayesian Analysis 11 (2016): 499-518. DOI: doi:10.1214/15-BA959, available at https://projecteuclid.org/euclid.ba/1434649584.

Kimberlin, S., H.L. Shaefer, and J. Kim. **"Measuring Poverty Using the Supplemental Poverty Measure in the Panel Study of Income Dynamics, 1998 to 2010."** Journal of Economic and Social Measurement 41, no. 1 (2016). DOI: 10.3233/JEM-160425, available at http://content.iospress.com/articles/journal-of-economic-and-social-measurement/jem425.

Murray, Jared S., and Jerome P. Reiter. **"Multiple Imputation of Missing Categorical and Continuous Values via Bayesian Mixture Models with Local Dependence."** Journal of the American Statistical Association (2016). DOI: 10.1080/01621459.2016.1174132, available at http://dx.doi.org/10.1080/01621459.2016.1174132.

Spencer, Bruce D.. NCRN Meeting Spring 2016: **A 2016 View of 2020 Census Quality, Costs, Benefits**. Northwestern University Preprint 1813:43897, 2016, available at http://hdl.handle.net/1813/43897.

Brandimarte, Laura, Ernest Chiew, Sam Ventura, and Alessandro Acquisti. NCRN Meeting Spring 2016: **Attitudes Towards Geolocation-Enabled Census Forms**. Carnegie-Mellon University Preprint 1813:43889, 2016, available at http://hdl.handle.net/1813/43889.

Mccue, Kristin, John Abowd, Margaret Levenstein, Dhiren Patki, Ann Rodgers, Matthew Shapiro, and Nada Wasi. NCRN Meeting Spring 2016: **Developing job linkages for the Health and Retirement Study**. University of Michigan Preprint 1813:43895, 2016, available at http://hdl.handle.net/1813/43895.

Cazar, Ana Lucía Có, and Robert Belli. NCRN Meeting Spring 2016: **Evaluating Data quality in Time Diary Surveys Using Paradata**. University of Nebraska Preprint 1813:43896, 2016, available at http://hdl.handle.net/1813/43896.

Belli, Robert F.. NCRN Meeting Spring 2016: **The ATUS and SIPP-EHC: Recent Developments**. University of Nebraska Preprint 1813:43893, 2016, available at http://hdl.handle.net/1813/43893.

Vilhuber, Lars, Alan Karr, Jerome Reiter, John Abowd, and Jamie Nunnelly. **NCRN Newsletter: Volume 2 - Issue 4**. NCRN Coordinating Office Preprint 1813:42394, 2016, available at http://hdl.handle.net/1813/42394.

Vilhuber, Lars, Alan Karr, Jerome Reiter, John Abowd, and Jamie Nunnelly. **NCRN Newsletter: Volume 3 - Issue 1**. NCRN Coordinating Office Preprint 1813:44199, 2016, available at http://hdl.handle.net/1813/44199.

Abowd, John M., and Kevin L. McKinney. **"Noise infusion as a confidentiality protection measure for graph-based statistics."** Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 127-135. DOI: 10.3233/SJI-160958, available at http://content.iospress.com/articles/statistical-journal-of-the-iaos/sji958.

Belli, R.F., and T. Al Baghal. **"Parallel associations and the structure of autobiographical knowledge."** Journal of Applied Research in Memory and Cognition 5, no. 2 (2016): 150-157. DOI: 10.1016/j.jarmac.2016.03.004.

Murray, J. S.. **"Probabilistic Record Linkage and Deduplication after Indexing, Blocking, and Filtering."** Journal of Privacy and Confidentiality 7, no. 1 (2016), available at http://repository.cmu.edu/jpc/vol7/iss1/2.

Dalzell, N. M., and J. P. Reiter. **Regression Modeling and File Matching Using Possibly Erroneous Matching Variables**. ArXiv 1608.06309, 2016, available at http://arxiv.org/abs/1608.06309.

Wei, Lan, and Jerome P. Reiter. **"Releasing synthetic magnitude micro data constrained to fixed marginal totals."** Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 93-108. DOI: 10.3233/SJI-160959, available at http://content.iospress.com/download/statistical-journal-of-the-iaos/sji959.

Folch, David C., Daniel Arribas-Bel, Julia Koschinsky, and Seth E. Spielman. **"Spatial Variation in the Quality of Ameri-**

Publications (Continued)

can Community Survey Estimates." Demography 53 (2016): 1535-1554.

Vilhuber, Lars, John M. Abowd, and Jerome P. Reiter. **"Synthetic establishment microdata around the world."** Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 65-68. DOI: 10.3233/SJI-160964, available at http://content.iospress.com/download/statistical-journal-of-the-iaos/sji964.

Miranda, Javier, and Lars Vilhuber. **"Using partially synthetic microdata to protect sensitive cells in business statistics."** Statistical Journal of the International Association for Official Statistics 32, no. 1 (2016): 69-80. DOI: 10.3233/SJI-160963, available at http://content.iospress.com/download/statistical-journal-of-the-iaos/sji963.

Presentations

Nancy Bates, Senior Researcher for Survey Methodology, U.S. Census Bureau and NCRN Coordinator at the U.S. Census Bureau, gave the 26th Annual Morris Hansen Lecture on "Hard-to-Survey Populations and the U.S. Decennial Census" on November 29. The 26th Annual Morris Hansen Lecture is sponsored by the Washington Statistical Society, Westat, and the National Agricultural Statistics Service.

The Committee on National Statistics' Fall 2016 Public Seminar took place on October 21. The featured topic was "Taking Surveys to People's Technology: Implications for Federal Statistics and Social Science Research" (Fred Conrad, Survey Research Center, University of Michigan, and Michael Schober, New School for Social Research).

John M. Abowd, Director of the Labor Dynamics Institute, Associate Director for Research and Methodology and Chief Scientist, U.S. Census Bureau, spoke at the University of Maryland/Joint Program on Survey Methodology Seminar Series on September 21. Title: The Challenge of Scientific Reproducibility and Privacy Protection for Statistical Agencies

Lars Vilhuber, Executive Director of the Labor Dynamics Institute and Principal Investigator, NCRN Coordinating Office spoke on the NCRN at the 2016 RDC Conference at the Texas A&M Campus on September 15.

The Survey Research Center at the Institute for Social Research at the University of Michigan and the United States Census Bureau held a four-day workshop, August 8-11, in Ann Arbor, Michigan. This advanced workshop introduced participants to the use of the Survey of Income and Program Participation Synthetic Beta (SSB) and provided hands-on applications to prepare them to conduct their own SSB-based research. The SIPP Synthetic Beta (SSB) is a Census Bureau data product that integrates person-level micro-data from a household survey (SIPP survey data) with W-2 earnings and OASDI benefits data.

The **Summer at Census** seminars at the US Census Bureau brought recognized scholars in statistics, survey methodology, demography, economics, geography, social and behavioral sciences, computer science, or closely related areas for short-term visits. Scholars presented seminars based on their research and engaged in collaborative research with Census Bureau researchers and staff on problems of data collection, processing, analysis,

Presentations (Continued)

and dissemination.

Donald Rubin, Harvard University presented at the Summer at Census Seminar on July 20, on the topic of A New Class of Models for Missing Data.

Scott Holan/University of Missouri presented on June 29 on "Multivariate Spatio-Temporal Models for High-Dimensional Areal Data with Application to Longitudinal Employer-Household Dynamics."

Upcoming Events

NCRN Meeting, Spring 2017, at US Census Bureau HQ

The NCRN Meeting Spring 2017 is the opportunity to learn about the research done within the NSF-Census Research Network.