# Federal Committee on Statistical Methodology Research Conference

Advance Program

# January 10-12, 2012

Walter E. Washington Convention Center 801 Mount Vernon Place, NW Washington, DC 20001

#### Sponsored by:

Agency for Healthcare Research and Quality Bureau of Economic Analysis Bureau of Justice Statistics Bureau of Labor Statistics Economic Research Service Energy Information Administration National Agricultural Statistics Service National Center for Education Statistics National Center for Health Statistics Office of Research, Evaluation and Statistics, Social Security Administration

Statistics of Income Division, Internal Revenue Service

U.S. Census Bureau

U.S. Environmental Protection Agency

Hosted by: Council of Professional Associations on Federal Statistics



Federal Committee Statistical Methodology

earch Conference	Thursday (1/12)	7:30 a.m. <b>Registration</b> (Concourse)	Coffee (Concourse) 9:00-10:30 a.m. CONCURRENT SESSION VIII-A: VIII-B: VIII-C: VIII-D: VIII-A: VIII-B: VIII-C: VIII-D: (Room 151A)(Room 152A)(Room 152A)(Room 154AB)		10:30–10:45 a.m. Break <sub>(Concourse</sub> )	10:45 a.m12:15 p.m. <b>CONCURRENT SESSION</b> <b>IX-A: IX-B: IX-C: IX-D:</b> (Room 151A)(Room 152A)(Room 152B)(Room 154A-B)	
Federal Committee on Statistical Methodology Research Conference Washington, DC—January 10–12, 2012	Wednesday (1/11)	7:30 a.m. <b>Registration</b> (Concourse)	<b>Coffee</b> (Concourse)	9:00–10:30 a.m. CONCURRENT SESSION IV-A: IV-B: IV-C: IV-D: (Room 151A)(Room 1528) (Room 154A-B)	1 0:30–10:45 a.m. Break <sup>(Concourse)</sup>	1 0:45 a.m12:15 p.m. CONCURRENT SESSION V-A: V-B: V-C: V-D: (Room 151A)(Room 1528)(Room 154A-B)	
Federal Committee	Tuesday (1/10)	7:30 a.m. <b>Registration</b> (Concourse)	<b>Coffee</b> (Concourse)	9:00–10:00 a.m. Welcoming Remarks and PLENARY SESSION (Rooms 151A and 151B)	1 0:00–1 0:30 a.m. <b>Break</b> (Concourse)	1 0:30 a.m1 2 noon <b>CONCURRENT SESSION</b> 1-A: 1-B: 1-C: 1-D: (Room 151A)(Room 152A)(Room 152B) (Room 154A-B)	

12:15–1:30 p.m. <b>Open</b>	1:30–3:00 p.m. <b>CONCURRENT SESSION</b> <b>X-A: X-B: X-C:</b> (Room 151A)(Room 152A)(Room 152B)	Meeting Rooms: Located at street level on the M Street side near the Metro. Concurrent Session A: 151A	Concurrent Session B: 152A Concurrent Session C: 152B Concurrent Session D: 154A-B
12:15–1:30 p.m. <b>Open</b>	1:30–3:00 p.m. CONCURRENT SESSION VI-A: VI-B: VI-C: VI-D: (Room 151A)(Room 152A)(Room 1528)(Room 154AB)	3:00–3:15 p.m. Break (Concourse) 3:15–4:45 p.m. CONCURRENT SESSION	(Room 151A)(Room 152B)
12 noon-1:15 p.m. <b>Open</b>	1:15-2:45 p.m. CONCURRENT SESSION II-A: II-B: II-C: II-D: (Room 151A)(Room 152A)(Room 154AB)	i i ⊑	III-A: III-B: III-C: III-D: (Room 151A)(Room 152A)(Room 152B)(Room 154A-B)



# 2012 FCSM Research Conference

The 2012 Federal Committee on Statistical Methodology (FCSM) Research Conference was initiated by the FCSM. The FCSM is an interagency committee dedicated to improving the quality of federal statistics. The committee's major goals are to:

- Communicate and disseminate information on statistical practice among all federal statistical agencies,
- Recommend the introduction of new methodologies in federal statistical programs to improve data quality, and
- Provide a mechanism for statisticians in different federal agencies to meet and exchange ideas.

The 2012 FCSM Research Conference provides a forum for experts from around the world to discuss and exchange current research and methodological topics relevant to federal government statistical programs. The conference will offer papers on a wide range of topics including small area estimation, confidentiality and disclosure, paradata and dashboards, variance estimation, imputation, weighting, sampling, multi-mode and Web data collection, economic statistics, nonresponse and measurement error, record linkage, questionnaire and survey design, cognitive research, administrative records, survey redesign, Bayesian statistical methods, and data quality.

Technical demonstrations will run concurrently on the second and third days of the conference during the first morning session. These sessions will include demonstrations on "Utilizing Technology to Improve Processes and Products" and "Data Collection and Monitoring Technology."

Sessions feature papers and demonstrations authored by government, private sector, and academic researchers from six countries. All sessions will include an open discussion and some sessions will include a formal discussion. Papers will be made available on the FCSM Web site <<www.fcsm .gov> following the conference.

We hope to see you at the 2012 FCSM Research Conference.

# Tuesday, January 10

**7:30 a.m.-4:30 p.m.** Registration

7:30-9:00 a.m. Coffee

9:00-9:10 a.m. Welcoming Remarks

#### 9:10-10:00 a.m. PLENARY SESSION

Keynote Speaker: Don Dillman (Washington State University, USA)

#### 10:00-10:30 a.m. Break

Break

#### 10:30 a.m.-12 noon CONCURRENT SESSION I-A:

INCENTIVES: A LOOK ACROSS STUDIES AND TIME Chair: Stephen Cohen (National Science Foundation, USA)

#### More Money? The Impact of Larger Incentives on Response Rates in Two Phase Mail Survey

Andrew Zukerberg and Sarah Hastedt (National Center for Education Statistics, USA)

# What Has It Gotten Us? Examining Incentives Over Time in a Cross-Sectional Study

Tracy Hunt-White (National Center for Education Statistics, USA), and Jennifer Wine and Peter Siegel (RTI International, USA)

An Investment in Goodwill or Encouraging Delays? Examining the Effects of Incentives in a Longitudinal Study

Lynn Milan (National Science Foundation, USA) and Karen Grigorian (NORC at the University of Chicago, USA)

# **Discussant:** Shelly Martinez (Office of Management and Budget, USA)

# **CONCURRENT SESSION I-B:**

THE NATIONAL CRIME VICTIMIZATION SURVEY (NCVS) SMALL AREA ESTIMATION PROGRAM Chair: Michael Planty (Bureau of Justice Statistics, USA)

#### Generic Area Estimations and Local Crime Patterns

Michael Planty (Bureau of Justice Statistics, USA)

# Rethinking the NCVS: Subnational Goals Through Direct Estimation

Robert Fay and Jianzhu Li (Westat, Inc., USA)

# Rethinking the NCVS: Small Area Estimation Approaches to Estimating Crime

Jianzhu Li and Robert Fay (Westat, Inc., USA)

#### Designing a Low(er)-Cost Complement to the National Crime Victimization Survey

J. Michael Brick and W. Sherman Edwards (Westat, Inc., USA), and Sharon Lohr (Arizona State University, USA)

**Discussant:** James Lynch (Bureau of Justice Statistics, USA)

# **CONCURRENT SESSION I-C:**

NEW APPROACHES TO OLD PROBLEMS IN IMPUTATION Chair: Daniel Kasprzyk (NORC at the University of Chicago, USA)

#### **Census Count Imputation: Mean Squared Error and Collapsing Strategies** Andrew Keller (U.S. Census Bureau)

Implementation of Improvements to the Allocation Routine for Health Insurance Coverage in the CPS ASEC

Joanna Turner and Michel Boudreaux (University of Minnesota, USA)

# **Evaluations of Imputation Methods to Improve the American Community Survey Estimates of the Group Quarters Population for Small Geographies** Mark Asiala, Michael Beaghen,

Alfredo Navarro, and Lynn Weidman (U.S. Census Bureau)

# Wage Imputation in the OES Survey: A Model-Based Approach

Jane Osburn (Bureau of Labor Statistics, USA)

# **CONCURRENT SESSION I-D:**

ISSUES IN INTERNATIONAL MIGRATION AND U.S. IMMIGRATION Chair: Sheila Thompson (National Center for Education Statistics, USA)

# Estimates of International Migration for United States Natives

Christopher Dick, Eric Jensen, and David Armstrong (U.S. Census Bureau)

# Forecasting Immigration Trends With

**Bayesian Structural Time Series Models** Scott Borger and Anthony Kassekert (Office of Immigration Statistics, USA)

# Imputing Legal Status of Foreign-Born

**Persons on Surveys: Two Approaches** Dean Judson (Decision Analytics, USA) and Sharon Long (University of Minnesota, USA)

# Estimating Personal Transfers From the United States

Rachel Soloveichik and Anne Flatness (Bureau of Economic Analysis, USA)

# 12 noon-1:15 p.m.

Open Lunch

# 1:15-2:45 p.m.

# **CONCURRENT SESSION II-A:**

SIMULATION MODELS OF FEDERAL SURVEYS Chair: Lawrence Cox (National Institute of Statistical Sciences, USA)

# The Case for Simulation Models of Federal Surveys

Lawrence Cox (National Institute of Statistical Sciences, USA)

# **Simulating NHIS Field Operations**

Bor-Chung Chen (Federal Railroad Administration, USA)

# The World's Smallest Survey Microsimulator

Alan Karr (National Institute of Statistical Sciences, USA)

**Discussant:** John Eltinge (Bureau of Labor Statistics, USA)

# **CONCURRENT SESSION II-B:**

ENHANCING SURVEYS THROUGH DATA LINKAGE Chair: Paul Beatty (National Center for Health Statistics, USA)

# Retrospective Linking of ECLS-K and ECLS-B Reading Scores

Carolyn Fidelman (National Center for Education Statistics, USA)

# The Role of Community Health Centers in Providing Safety-Net Access to Health Care

Sandra Decker (National Center for Health Statistics, USA) and Frederic Selck (Johns Hopkins University, USA)

# Combining Information From Multiple Complex Surveys

Qi Dong, Trivellore Raghunathan, and Michael Elliott (University of Michigan, USA)

# Use of Synthetic Data in Testing Administrative Records Systems

K. Bradley Paxton and Thomas Hager (ADI, LLC, USA)

# **CONCURRENT SESSION II-C:**

USING MULTI-MODE TECHNIQUES Chair: Jennifer Edgar (Bureau of Labor Statistics, USA)

# Return to Sender: Improving Response Rates in Two-Stage Mail Surveys

Cameron McPhee and Saida Mamedova (American Institutes for Research, USA)

# Multi-Mode Survey Response Process for a Complex Economic Survey

Thomas Falconer and Richard Hough (U.S. Census Bureau)

# Redesigning the National Surveys of Long-Term Care Providers

Lauren Harris-Kojetin (National Center for Health Statistics, USA)

**Discussant:** Bill Mockovak (Bureau of Labor Statistics, USA)

# **CONCURRENT SESSION II-D:**

ECONOMIC STATISTICS Chair: Charlie Hallahan (U.S. Department of Agriculture)

**Measuring the Economic Impact of Intellectual Property Reliant Industries** Brittany Bond, Jocelyn Burston, and David Langdon (U.S. Department of Commerce)

# Modernization of Benchmarking Economic Time Series at the

U.S. Census Bureau Irene Brown (U.S. Census Bureau)

# Using a Composite Index of Financial Conditions Indicators to Predict Turning Points in the U.S. Business Cycle

Gad Levanon, Jean-Claude Maninni, Ataman Ozyildirim, and Jennelyn Tanchua (The Conference Board, USA)

# Early Estimates for the Retail Trade With a Mixed Model

Pieter Vlag (Statistics Netherlands)

**2:45-3:00 p.m.** Break

#### 3:00-4:30 p.m. CONCURRENT SESSION III-A:

USE OF ADMINISTRATIVE RECORDS DATA IN THE 2020 CENSUS Chair: Shelly Martinez (Office of Management and Budget, USA)

Possible 2020 Census Designs and the Use of Administrative Records: What Is the Impact on Cost and Quality? Maryann Chapin (U.S. Census Bureau)

2010 Census Simulation: Comparing Administrative Records and Decennial Data Amy O'Hara (U.S. Census Bureau)

Public Attitudes Toward the Use of Administrative Records in the U.S. Census: Does Question Frame Matter?

Monica Wroblewski, Nancy Bates, and Joanne Pascale (U.S. Census Bureau)

**Discussant:** John Thompson (NORC at the University of Chicago, USA)

# **CONCURRENT SESSION III-B:**

ADVANCED TECHNIQUES FOR EVALUATING AND ADJUSTING FOR UNIT NONRESPONSE ACROSS DIFFERENT MODES OF DATA COLLECTION Chair: Jonaki Bose (Substance Abuse and Mental Health Services Administration, USA)

**Comparing Weighting and Methods of Adjusting for Logistic Unit Nonresponse** Phillip Kott and Dan Liao (RTI International, USA)

A Response Propensity Based Evaluation of the Treatment of Unit Nonresponse for Selected Business Surveys Katherine Jenny Thompson and Katrina Washington (U.S. Census Bureau)

# Nonresponse and Panel Attrition in a Mobile Phone Panel Survey

Marek Fuchs (Darnstadt University of Technology, Germany)

# Rich List Data and Adjusting for Nonresponse Bias

Paco Martorell and David Loughran (RAND, USA) and Jacob Klerman (Abt Associates, USA)

# **CONCURRENT SESSION III-C:**

USE OF PARADATA AND DASHBOARDS Chair: Lynn Langton (Bureau of Justice Statistics, USA)

Comparing Estimates and Item Nonresponse Rates of Interviewers Using Statistical Process Control Techniques Robyn Sirkis (U.S. Census Bureau)

#### Paradata in the Consumer Expenditure Survey

Laura Paszkiewicz (Bureau of Labor Statistics, USA)

# The Implementation of Dashboards in Governments Division Surveys

Terri Craig and Carma Hogue (U.S. Census Bureau)

# Development of a SAS Dashboard to Support Administrative Data Collection Processes

Marianne Reifschneider and Susan Harris (U.S. Energy Information Administration)

# **CONCURRENT SESSION III-D:**

INCOME Chair: Thesia Garner (Bureau of Labor Statistics, USA)

# Reconcile This! Exploring a Balance Edit Approach in the Consumer Expenditure Survey

Brandon Kopp, Scott Fricker, and Nhien To (Bureau of Labor Statistics, USA)

# Explaining Long-Term Differences Between Census and BEA Measures of the Income of Persons

Arnold Katz (Bureau of Economic Analysis, USA)

# Influential Values and Robust Estimation in the Annual Survey of Public Employment and Payroll

Joseph Barth, Yang Cheng, Mary Mulry, and John Tillinghast (U.S. Census Bureau)

# Getting More From Survey Income Measures: Empirically-Based Recommendations for Improving Accuracy and Efficiency

John Czajka (Mathematica Policy Research, USA) and Gabrielle Denmead (Consultant, USA)

# Wednesday, January 11

# 7:30 a.m.-4:45 p.m. Registration

# **7:30-9:00 a.m.** Coffee

#### 9:00-10:30 a.m. CONCURRENT SESSION IV-A:

SMALL AREA ESTIMATION Chair: Charles Day (Substance Abuse and Mental Health Services Agency, USA)

# Establishing a Feasibility of Small Area Estimation From the National Ambulatory Medical Care Survey (NAMCS) Data

Vladislav Beresovsky and Donald Malec (National Center for Health Statistics, USA)

# Small Area Estimation for Governments Surveys

Bac Tran and Yang Chen (U.S. Census Bureau)

# Small Area Prediction for a Unit Level Lognormal Model

Emily Berg (National Agricultural Statistics Service, USA), Hukum Chandra (Indian Agricultural Statistics Research Institute, India), and Ray Chambers (University of Wollongong, Australia)

# Synthetic Data for Small Area Estimation and Disclosure Control: Examples From the ACS and NHIS

Joseph Sakshaug (University of Michigan, USA)

# **CONCURRENT SESSION IV-B:**

MULTI-MODE AND WEB DATA COLLECTION Chair: Elise Christopher (National Center for Education Statistics, USA)

# Evaluating Data Collection Mode Options in the 2010 National Survey of College Graduates

John Finamore (National Science Foundation, USA)

# Designing a Web-Based Diary Survey: Lessons From the Consumer Expenditure Survey Online Prototype

Lauren Kirkpatrick (U.S. Census Bureau) and Jeanette Davis (Bureau of Labor Statistics, USA)

# Developing a Multi-Mode, Longitudinal Study to Understand College Student Outcomes Using Becker's Human Capital Framework

Matthew Soldner and Tracy Hunt-White (National Center for Education Statistics, USA), and Jennifer Wine and Natasha Janson (RTI International, USA)

# **Considering a Digital 2020 Census**

Michael Thieme (U.S. Census Bureau)

# **CONCURRENT SESSION IV-C:**

REDUCING MEASUREMENT ERROR Chair: Chris Anguelov (Social Security Administration, USA)

# Exploring Underreporting and Respondent Records Usage in the Consumer Expenditure Survey

Janel Brattland, Jeanette Davis, Brandon Kopp, and Neil Tseng (Bureau of Labor Statistics, USA), Emily Geisen (RTI International, USA), and M. Christopher Stringer (U.S. Census Bureau)

# Statistical Issues in the Financial Well-Being of the Aged

Chris Anguelov, Howard Iams, and Patrick Purcell (Social Security Administration, USA)

# Evaluation of Gross Vacancy Rates From the Decennial Census Versus Current Surveys Arthur Cresce Jr., (U.S. Census Bureau)

# Evaluating an Alternative Data Source for Editing MEPS Drug Prices

Marc Zodet, Steven Hill, and Samuel Zuvekas (Agency for Healthcare Research and Quality, USA)

# CONCURRENT SESSION IV-D: TECHNICAL DEMONSTRATIONS

UTILIZING TECHNOLOGY TO IMPROVE PROCESSES, PRODUCTS, AND COMMUNICATION Chair: Jaki McCarthy (National Agricultural Statistics Service, USA)

# Cropscape: The New Visualization, Querying, and Dissemination Web Portal for the NASS Cropland Data Layer

Audra Zakzeski (National Agricultural Statistics Service, USA)

# Visualizing Agricultural Data Via the Web

Irwin Anolik (National Agricultural Statistics Service, USA)

# **Testing Production Data Capture Quality**

K. Bradley Paxton, Steven Spiwak, Douglass Huang, and James McGarity (ADI, LLC, USA)

# Statipedia: A Wiki Workspace for Federal Statistical Staff

Peter Meyer (Bureau of Labor Statistics, USA)

# 10:30-10:45 a.m.

Break

#### 10:45 a.m.-12:15 p.m. CONCURRENT SESSION V-A:

WEIGHTING COMPLEX SURVEY DATA Chair: Tamara Rib (Statistics of Income, Internal Revenue Service, USA)

# Comparing the Selection of One Person Per Household to the Selection of All Household Members: Can Less Be More? Vincent lannacchione and Bonnie Shook-Sa (RTI International, USA)

# Methods for Incorporating an Undersampled Cell Phone Frame When Weighting a Dual-Frame Telephone Survey

A. Elizabeth Ormson, Kennon Copeland, Kirk Wolter, and Kathleen Santos (NORC at the University of Chicago, USA), and Stephen Blumberg (National Center for Health Statistics, USA)

# Longitudinal Survey Weight Calibration Applied to the NSF Survey of Doctorate Recipients

Michael Larsen, Siyu Qing, Beilei Zhou, and Mary Foulkes (The George Washington University, USA)

# Methods for Adjusting Survey Weights When Estimating a Total

Richard Valliant (University of Michigan, USA) and Kimberly Henry (Statistics of Income, Internal Revenue Service, USA)

# **CONCURRENT SESSION V-B:**

EVALUATING THE SIPP RE-ENGINEERING, COMPARING SIPP AND SIPP-EHC Chair: Bob Belli (University of Nebraska-Lincoln, USA)

A Preliminary Evaluation of the Residence History Data in the 2010 and 2011 Field Tests of the Re-Engineered Survey of Income and Program Participation

Matthew Marlay and Peter Mateyka (U.S. Census Bureau)

# Measuring School Enrollment in the 2011 Re-SIPP Field Test

Stephanie Ewert and Sarah Crissey (U.S. Census Bureau)

# "I Don't Remember" Effects of Recall Period on Reported Job and Program Participation Duration

Rebecca Chenevert and Renee Ellis (U.S. Census Bureau)

# An Evaluation of Field Test Data From Re-Engineered SIPP Using Administrative Records and 2008 SIPP Graton Gathright (U.S. Census Bureau)

## **CONCURRENT SESSION V-C:**

MONITORING AND USING PARADATA AND METADATA Chair: Jennifer Edgar (Bureau of Labor Statistics, USA)

# Designing a Paradata Application in a CAPI Environment

Barbara O'Hare and Matthew Jans (U.S. Census Bureau)

# Using Paradata to Monitor Survey Production, Cost, and Quality Within an Adaptive Total Design Framework

David Cunningham Hunter, Susan Mitchell, and Lisa Carley-Baxter (RTI International, USA)

# Producing Control Charts to Monitor Response Rates for Business Surveys in the Economic Directorate of the U.S. Census Bureau

Yarissa Gonzalez, Roberta Gibson, and Broderick Oliver (U.S. Census Bureau)

# A Web-Based Approach for Combining

**Metadata, Search, and Data Profiling** Jeff Butler and Robin Rappaport (Internal Revenue Service, USA)

# **CONCURRENT SESSION V-D:**

STATISTICAL METHODS Chair: Ryan Greenaway-McGrevy (Bureau of Economic Analysis, USA)

# **An Exploratory Components Procedure** to Uncover the Q Matrix in Cognitive **Diagnostic Testing**

Catherine Close (University of Minnesota, USA)

# The Multivariate Differential Effects Value-Added Model

Robert Meyer (University of Wisconsin-Madison, USA)

#### **Genuine Exact Two-Stage Methodologies** for Producing Assigned Accuracy **Estimators for a Gamma Mean** Kevin Tolliver (U.S. Census Bureau)

# **Ouantification of Profile Matches**

Ernest Davenport, Jr. (University of Minnesota, USA)

# 12:15-1:30 p.m.

Open Lunch

# 1:30-3:00 p.m.

**CONCURRENT SESSION VI-A:** 

VARIANCE ESTIMATION Chair: Michael Planty (Bureau of Justice Statistics, USA)

# **Can Post-Imputation Calibration Mitigate** Possible Bias in the Multiple Imputation Variance Estimator?

Benjamin Reist (U.S. Census Bureau) and Michael Larsen (The George Washington University, USA)

**Condition Indexes and Variance Decompositions for Diagnosing** Multicollinearity in Linear Model and Generalized Linear Model Analysis of Survey Data Dan Liao (RTI International, USA)

# Within PSU Sort Research to Reduce Variances for the Survey of Income and **Program Participation (SIPP)**

Sarah Tekansik and Stephen Mack (U.S. Census Bureau)

# Weighting and Variance Estimation Under Responsive Designs and Related Forms of Sample-Driven Resource Allocation for Complex Surveys John Eltinge (Bureau of Labor Statistics, USA)

# **CONCURRENT SESSION VI-B:**

RESPONSE AND NONRESPONSE IN ESTABLISHMENT SURVEYS Chair: Lauren Harris-Kojetin (National Center for Health Statistics, USA)

# Survey Data Collection Methods in Establishment Surveys

Brad Edwards (Westat, Inc., USA) and David DesRoches (Mathematica Policy Research, USA)

# A Comparison of Establishment Collection Mailing Methods

Chris Ellis (RTI International, USA), Margaret Noonan (Bureau of Justice Statistics, USA), and Tim Flanigan, Scott Ginder, and Hope Smiley McDonald (RTI International, USA)

# Does It Pay to Try Again? Using Production Metrics From the Recruiting Process on an Establishment Survey to Design Recruiting Protocols

Sara Zuckerbraun, John Loft, and Patricia LeBaron (RTI International, USA), and Manisha Sengupta (National Center for Health Statistics, USA)

# **Developing Response Metrics for the Economic Census**

Joanna Fane Lineback, Broderick Oliver, and Diane Willimack (U.S. Census Bureau)

# **CONCURRENT SESSION VI-C:**

MEASURING, MONITORING, AND IMPROVING THE QUALITY OF SURVEY DATA Chair: John Bushery (Retired, U.S. Census Bureau, USA)

# **Survey Quality Indicator Measures**

Donsig Jang (Mathematica Policy Research, USA)

# A Quality Control Program for NASS' National Operations Center

Jeffery Boone (National Agricultural Statistics Service, USA)

# Quality Assurance for EPA's National Coastal Survey

Marla Smith (U.S. Environmental Protection Agency)

# Achieving Information Quality Via Continuous Quality Improvement

Shawna Waugh (Energy Information Administration, USA)

# CONCURRENT SESSION VI-D:

PROTECTING CONFIDENTIAL DATA AND PREVENTING DISCLOSURE Chair: Demetra Collia (Bureau of Transportation Statistics, USA)

# Applicability of Basic Separability Principles to Enhance the Operational Efficiency of Synthetic Tabular Data Generation Procedures in Multidimensional Table Structures Ramesh Dandekar (Energy Information Administration, USA)

A Stochastic/Deterministic Hybrid Search Method for Solving the 3-Dimensional Cell Suppression Problem for Deeply Hierarchical-Structured Tables Matt Fetter (National Agricultural Statistics Service, USA)

k-Anonymization May Be NP-Complete, but Can It Be Practical? David Wilson (RTI, International, USA)

# Establishing a Secure Data Center With Remote Access

Jeffrey Gonder (National Renewable Energy Laboratory, USA) and Elaine Murakami (Federal Highway Administration, USA)

#### **3:00–3:15 p.m.** Break

#### 3:15–4:45 p.m. CONCURRENT SESSION VII-A:

LINKING DATA TO ASSESS NON-RESPONSE AND MEASUREMENT Chair: William Sabol (Bureau of Justice Statistics, USA)

# Nonresponse Bias Analysis of BMI Data in the ATUS Eating & Health Module

Karen Hamrick (Economic Research Service, USA)

# Estimating Mental Illness in an Ongoing National Survey

Joe Gfroerer, Sarra Hedden, Peggy Barker, and Jonaki Bose (Center for Behavioral Health Statistics and Quality, USA), and Jeremy Aldworth (RTI International, USA)

# Telling Truth From Y's: Accuracy of Self-Reported Condom Use Assessed by a Semen Y-Chromosome Biomarker for Unprotected Sex

Janet Rosenbaum (University of Maryland, USA), Johan Melendez and Jonathan Zenilman (Johns Hopkins University, USA), and Eve Rose, Gina Wingood, and Ralph DiClemente (Emory University, USA)

# Linking the National Health and Nutrition Examination Survey to Centers for Medicare and Medicaid Services Medicaid Enrollment and Claims Data

Lisa Mirel, Gloria Wheatcroft, Cordell Golden, and Kenneth Schoendorf (National Center for Health Statistics, USA)

# **CONCURRENT SESSION VII-B:**

QUESTIONNAIRE AND SURVEY DESIGN Chair: David Kashihara (Agency for Healthcare Research and Quality, USA)

# Measurement Strategies for Identifying Holders of Certificates and Certifications

Sharon Boivin and Isaiah O'Rear (National Center for Education Statistics, USA)

# Evaluation of the 2008 American Community Survey Employment Status Question Change

Alfred Gottschalck, Braedyn Kromer, David Howard, and David Hedengren (U.S. Census Bureau)

National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) Cell Phone and Debit Card Test

Elke McLaren, Aniekan Okon, and Denise Pepe (U.S. Census Bureau)

# The Missing Link: From Concepts to Questions in Economic Surveys

Diane Willimack (U.S. Census Bureau) and Ger Snijkers (Statistics Netherlands)

# **CONCURRENT SESSION VII-C:**

CHALLENGING ISSUES FOR TODAY AND TOMORROW: INNOVATIVE APPROACHES Chair: Barry Nussbaum (U.S. Environmental Protection Agency)

# Consequences of Social Security Number Randomization

Bert Kestenbaum (Social Security Administration, USA) **Taxable Property Values: Exploring the Feasibility of a Survey** Datar Schilling and Prian Zamparini

Peter Schilling and Brian Zamperini (U.S. Census Bureau)

Measurement Error in the Relationship Status of Same-Sex Couples in the 2009 American Community Survey Matthew Virgile (U.S. Census Bureau)

# Statistics on Temporal and Spatial Activity Based on Mobile Phone Network Data

Edwin de Jonge, Merijn van Pelt, and Marko Roos (Statistics Netherlands)

# Thursday, January 12

7:30 a.m.-12:15 p.m. Registration

**7:30-9:00 a.m.** Coffee

9:00-10:30 a.m. CONCURRENT SESSION VIII-A: MULTIPLE IMPUTATION Chair: Patrick Flanagan (U.S. Census Bureau)

# MI Double Feature: Multiple Imputation to Address Nonresponse and Rounding Errors in Income Questions Simultaneously

Joerg Dreschler (Institution for Employment Research, Germany) and Hans Kiesl (University of Applied Sciences, Germany)

Multiple Imputation: Limitations Born From Missing Data Among Covariates Kenneth Steve and Li Leung (Bureau of Transportation Statistics, USA)

# Effect of Different Imputation Methods on Factor Analyses of CAHPS Nursing Home Survey

Robert Baskin, Judy Sangl, and Marc Zodet (Agency for Healthcare Research and Quality, USA)

**Discussant:** Katherine Jenny Thompson (U.S. Census Bureau)

# CONCURRENT SESSION VIII-B: ISSUES IN DESIGNING AND REDESIGNING ESTABLISHMENT SURVEYS

Chair: Clarice Brown (National Center for Health Statistics, USA)

# Closing the Feedback Loop in Survey Design-How Public Sector Research Needs Inform Evolution of the Census of Agriculture

Luanne Lohr (Economic Research Service, USA) and Donald Buysse (National Agricultural Statistics Service, USA)

# Survey Redesign Process for a Business Survey: Lessons Learned From the Business R&D and Innovation Survey Richard Hough (U.S. Census Bureau)

Comparison of the Data Reliability of Nationally Representative Estimates From the Full (2007) and Half (2008) Samples of the National Hospital Discharge Survey-Implications for Trend Analyses

Margaret Jean Hall and Maria Owings (National Center for Health Statistics, USA)

Integration of the National Hospital Discharge Survey and the National Hospital Ambulatory Medical Care Survey into the National Hospital Care Survey

Carol DeFrances and David Woodwell (National Center for Health Statistics, USA)

# **CONCURRENT SESSION VIII-C:**

DISCLOSURE Chair: Jacob Bournazian (Energy Information Administration, USA)

# Automated Disclosure-Safety Treatment of Analysis Results (ADSTAR) for Remote Analysis Servers

Avinash Singh, Joshua Borton, Allan Crego, and Amanda Tzy-Chyi Yu (NORC at the University of Chicago, USA)

# Logistic Regression With Variables Subject to Post Randomization Method

Yong Ming, Jeffrey Woo, and Aleksandra Slavković (The Pennsylvania State University, USA) **Disclosure Avoidance Through Noise** Infusion and Synthetic Data: The Case of the Quarterly Workforce Indicators

John Abowd and Lars Vilhuber (Cornell University, USA, and U.S. Census Bureau), Kaj Gittings (Louisiana State University, USA), Kevin McKinney (U.S. Census Bureau), Bryce Stephens (Bates White Economic Consulting, USA), and Simon Woodcock (Simon Fraser University, USA)

**Discussant:** Samson Adeshiyan (Energy Information Administration, USA)

# **CONCURRENT SESSION VIII-D: TECHNICAL DEMONSTRATIONS**

DATA COLLECTION AND MONITORING TECHNOLOGY Chair: Joseph Parsons (National Agricultural Statistics Service, USA)

**Technology Advancing Data Collection: Implementing Thin Client Computer Assisted Personal Interviewing into** National Agricultural Statistics Services' 2011 Field Data Collection Program Michael Gerling, Pam Hird, and James Harris

(National Agricultural Statistics Service, USA)

# Data Quality Record—A Desktop Application

Judy Lieberman, Joseph Greenblott, and Patricia Mundy (U.S. Environmental Protection Agency), and Michael Crow (Crow Environmental, USA)

## **CARI Interactive Data Access System** Carl Fisher (RTI International, USA)

# **RTI Ouality Evaluation System (OUEST)**

Susan Kinsey, Derek Stone, and Curry Spain (RTI International, USA)

#### 10:30-10:45 a.m. Break

# 10:45 a.m.-12:15 p.m. CONCURRENT SESSION IX-A:

BESTING THE ODDS: OPTIMAL REPORTING OF LOGISTIC REGRESSION Chair: Judith Sangl (Agency for Healthcare Research and Quality, USA)

# Understanding Regression Risk Analysis in Multinomial and Ordered Logistic Regressions

Morgen Miller and Edward Norton (University of Michigan, USA), Lawrence Kleinman and Kasey Coyne (Mount Sinai School of Medicine, USA), and Jason Wang (New York City Department of Health and Mental Hygiene, USA)

# Estimating Variance for Regression Risk Analysis

Jason Wang (New York City Department of Health and Mental Hygiene, USA), Edward Norton and Morgen Miller (University of Michigan, USA), and Kasey Coyne and Lawrence Kleinman (Mount Sinai School of Medicine, USA)

# Practitioner's Guide to Regression Risk Analysis Using SAS and Stata

Edward Norton and Morgen Miller (University of Michigan, USA), Lawrence Kleinman and Kasey Coyne (Mount Sinai School of Medicine, USA), and Jason Wang (New York City Department of Health and Mental Hygiene, USA)

# Rank Reversal in Comparative Effectiveness Research

Lawrence Kleinman and Kasey Coyne (Mount Sinai School of Medicine, USA), Edward Norton and Morgen Miller (University of Michigan, USA), and Jason Wang (New York City Department of Health and Mental Hygiene, USA)

# **CONCURRENT SESSION IX-B:**

RESPONDENT BURDEN: MEASUREMENT AND REDUCTION Chair: Marianne Reifschneider (Energy Information Administration, USA)

# Reducing Respondent Burden: Evaluating the Progress of the 2011 SIPP-EHC Jason Fields and Rachael Walsh (U.S. Census

**Differing Person Nonresponse Rate by Interview Length and Respondent Characteristic: Results From the 2010 and 2011 SIPP-EHC Field Tests** Daniel Perez-Lopez (U.S. Census Bureau)

# Does Length Really Matter? Exploring the Effects of a Shorter Interview on Data Quality, Nonresponse, and Respondent Burden

Scott Fricker, Brett Creech, Jeanette Davis, Jeffrey Gonzalez, Lucilla Tan, and Nhien To (Bureau of Labor Statistics, USA)

# Discussant: TBD

Bureau)

# **CONCURRENT SESSION IX-C:**

USING ADMINISTRATIVE DATA FOR SURVEY DATA QUALITY EVALUATIONS Chair: Patrick Purcell (Social Security Administration, USA)

# Linking Medicaid Administrative Records Over Time and Space: Methods and Findings, 2005 to 2007

Shinu Verghese and John Czajka (Mathematica Policy Research, USA)

# Misreporting of Food Stamp Participation in the NHANES: Results From a Pilot Study Linking Administrative Records to Survey Data

John Kirlin (Economic Research Service, USA), Michael Wiseman (George Washington University, USA), Daniel Schroeder (Ray Marshall Center for the Study of Human Resources, USA), and Lisa Mirel (National Center for Health Statistics, USA)

# How Good are ASEC Earnings Data? A Comparison to SSA Detailed Earning Records

Joan Turek, Bula Ghose, and Kendall Swenson (Department of Health and Human Services, USA), Fritz Scheuren (NORC at the University of Chicago, USA), and Charles Nelson and Edward Welniak (U.S. Census Bureau)

# Evaluating Job Data in the Redesigned SIPP Using Administrative Records

Graton Gathright, Jeremy Skog, and Martha Stinson (U.S. Census Bureau)

# **CONCURRENT SESSION IX-D:**

SAMPLING FOR EVERY OCCASION Chair: Joy Sharp (Bureau of Transportation Statistics, USA)

# Expanding the Community Address Updating System Universe

Bryan Schar, James Lawrence, and Star Ying (U.S. Census Bureau)

## Estimation and Sampling of Longitudinal Person-Firm Data

Kevin McKinney (U.S. Census Bureau)

## Extracting Information From Broken, Cracked and Shattered Samples

Andrew Thomas and William Eddy (Carnegie Mellon University, USA)

# Estimates of External Bias in Impact Evaluations that Select Sites Purposively

Stephen Bell and Robert Olsen (Abt Associates, USA), and Larry Orr and Elizabeth Stuart (Johns Hopkins University, USA)

12:15-1:30 p.m. Open Lunch

## 1:30-3:00 p.m. CONCURRENT SESSION X-A:

BAYESIAN STATISTICAL METHODS Chair: Richard Reeves (Energy Information Administration, USA)

## Calibrated Bayes: Spanning the Divide Between Frequentist and Bayesian Inference Roderick Little (U.S. Census Bureau)

# A Semi-Parametric Approach to Account for Complex Designs in Multiple Imputation

Hanzhi Zhou, Trivellore Raghunathan, and Michael Elliott (University of Michigan, USA)

Pattern-Mixture Models for Trivariate Normal Incomplete Survey Data With Fully Observed Auxiliary Variables Subject to Measurement Error

Brady West (University of Michigan— Ann Arbor) and Roderick Little (U.S. Census Bureau, and University of Michigan—Ann Arbor, USA)

**Discussant:** William Anderson (University of Richmond, USA)

# **CONCURRENT SESSION X-B:**

LINKING AND QUALITY OF ADMINISTRATIVE DATA Chair: Kathleen Short (U.S Census Bureau)

# Pulling Together: Linking Unemployment Insurance and Supplemental Nutrition Assistance Program Administrative Data to Study Effects of the Great Recession Theresa Anderson (George Washington University, USA, and Economic Research

Service, USA), John Kirlin, (Economic Research Service, USA), John Kirlin, (Economic Research Service, USA), and Michael Wiseman (George Washington University, USA)

# **Study of Factors Affecting Record Linkage in Federal Statistical Databases** Yuan Zhao and Michael Larsen (George Washington University, USA)

Qualitative Assessment of Administrative Records: The Case of State Prisons' Records Anna Chan (U.S. Census Bureau)

# Methods of Assigning Race and Hispanic Origin to Births From Vital Statistics Data

Christine Guarneri and Christopher Dick (U.S. Census Bureau)

# **CONCURRENT SESSION X-C:**

DETECTING AND CORRECTING NONRESPONSE ERROR AND BIAS IN LARGE SAMPLE GOVERNMENT DATA COLLECTIONS IN THE UNITED STATES AND CANADA Chair: Chris Chapman (National Center for Education Statistics, USA)

# Total Survey Error in the American Time Use Survey

John Dixon and Brian Meekins (Bureau of Labor Statistics, USA)

# Experimental Design for Nonresponse Follow-Up of Electronic Questionnaire Survey

Joanne Leung, Jeannine Claveau, and Claude Turmelle (Statistics Canada)

# Recent Results of the 2003 ACS Voluntary Versus Mandatory Data Collection Methods Test

Karen King, Michael Starsinic, and Alfredo Navarro (U.S. Census Bureau)

**Discussant:** Jill Montaquila (Westat, Inc., USA, and University of Maryland, USA)

# REGISTRATION and LODGING INFORMATION 2012 FCSM RESEARCH CONFERENCE JANUARY 10–12, 2012

The advance program, including the registration form (.PDF fillable) and lodging information, is on the 2012 FCSM Web site, **<www.fcsm.gov/events/**>.

# Conference Fee: Registration is \$195.

To register, please complete and submit the registration form found at the end of this program or online at <www.fcsm.gov /events/>. Return the form by **November 29, 2011** to guarantee your registration. Please note that conference fees are nonrefundable after December 6.

Lodging: Lodging is available at the Embassy Suites DC Convention Center Hotel, Washington, DC. Registrants are responsible for their own lodging arrangements. A conference rate of \$183 per day for single occupancy (\$208 for double), plus tax, is available until December 10, 2011. The Embassy Suites is just one and a half blocks from the Convention Center and minutes from the White House, U.S. Capitol. Smithsonian Institution, Kennedy Center, and other Washington attractions. The hotel is five miles from Reagan National Airport and three blocks from the Metro Center Metro stop (blue. orange, and red lines). The hotel offers valet parking.

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Direct any questions to Anna Holaus or Wanda Rivers, Conference Coordinators, Administrative and Customer Services Division, U.S. Census Bureau, 4600 Silver Hill Road, Room 3J247, Washington, DC 20233, (301-763-2308).

Space is limited. Early registration is encouraged.

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