In memory of Seymour Sudman
ORGANIZATIONS PROVIDING CONFERENCE SUPPORT

American Statistical Association (ASA)
ASA Section on Survey Research Methods
ASA Section on Government Statistics

International Association of Survey Statisticians

Statistical Society of Canada

U.S. Government Agencies

U.S. Census Bureau
U.S. Bureau of Labor Statistics
U.S. Energy Information Administration
National Agricultural Statistics Service, USDA
U.S. National Center for Education Statistics
U.S. National Science Foundation

International Government Agencies

Australian Bureau of Statistics
Statistics Canada
United Kingdom Office of National Statistics

Private Agencies

Research Triangle Institute, U.S.A.
Westat, U.S.A.
ORGANIZING COMMITTEE

John G. Kovar, Chair
 Statistics Canada

Brenda G. Cox
 Mathematica Policy Research, Inc.

David Archer
 Statistics New Zealand

Eva Elvers
 Statistics Sweden

Carol C. House
 National Agricultural Statistics Service, USDA

Silvia Biffignandi
 Università degli studi di Bergamo, Italia

Daniel Kasprzyk
 U.S. National Center for Education Statistics

David A. Binder, Marie Brodeur, Marie-Claude Duval, France Labrecque, and Claude Poirier
 Statistics Canada

Peter Kooiman
 Statistics Netherlands

Maxine Anderson-Brown, Patrick J. Cantwell and Ron Jarmin
 U.S. Census Bureau

Geoff Lee
 Australian Bureau of Statistics

Lynda T. Carlson
 U.S. National Science Foundation

Renee Miller and Sam Cohen
 U.S. Energy Information Administration

Carl Ramirez
 U.S. General Accounting Office

John Charlton
 Office for National Statistics, United Kingdom

Stuart Scott
 U.S. Bureau of Labor Statistics

Logistics and Coordination

Lee Decker
 American Statistical Association

Program Production

Shelby Folger, Carol McDaniel, Anna Holaus, and Cheryl Whisonant
 U.S. Census Bureau
A second International Conference on Establishment Surveys (ICES II) was held June 17-21, 2000, Buffalo, New York at the Adams Mark Hotel. Since the first ICES held in 1993, many new techniques have been developed by practitioners around the globe. While the first conference set the stage by formally documenting the state of the art at that time, the second conference built on those themes and took a forward look at methods of surveying businesses, farms and institutions. A major strength of both conferences was the strong international presence, both on the program side as well as in the attendance. About 470 people from 35 countries attended ICES II.

ICES II featured invited and contributed papers from experts around the globe in the area of establishment surveys. This volume reproduces all the papers that have been submitted by the authors as part of the thirty-three invited sessions. An accompanying CD includes both the invited as well as the contributed papers. The papers and the discussions included in these proceedings volumes are reproduced exactly as received from authors. The presentations are presumed to be essentially as given in Buffalo. The volumes are not copyrighted by the Association.

The authors in these proceedings volumes may submit their papers to any journal of their choice. The ASA Board of Directors has ruled that publication in these proceedings does not preclude publication elsewhere.

American Statistical Association
1429 Duke Street
Alexandria, Virginia 22314-3402

Printed in Canada

Price: $80 Canadian (includes the CD)
$40 Canadian for the CD alone
Table of Contents

Keynote Address: Establishment Survey Since ICES I: What Has and Hasn’t Changed, and What Are the Issues for the Future? Susan Linacre, Office for National Statistics, United Kingdom

Strategic Directions for Business Surveys: an International Perspective (Session 13)

Strategic Directions for Business Surveys: An Australian Perspective. Susan Linacre, Robin Slater, and Geoff Lee, Australian Bureau of Statistics

Statistics Canada’s Broad Strategy for Business Statistics. Philip Smith, Statistics Canada

Satisfying Emerging Data Needs: Measuring Electronic Business. Thomas Mesenbourg, U.S. Census Bureau


Business Registers: Maintenance and Uses (Session 25)


Recent Developments in the Statistics Canada Business Register. Élaine Castonguay and André Monty, Statistics Canada

Discussion Paper - Session 25: Peter Struijs, Statistics Netherlands

Coverage in School Sampling Frames (Session 51)

Implementing a Sampling Frame of Elementary and Secondary Schools in Canada. Simon Cheung, and Marianne Gossen, Statistics Canada

Evaluating the Coverage of the U.S. National Center for Education Statistics’ Public Elementary/Secondary School Frame. Thomas Hamann, U.S. Census Bureau

Evaluating of the Coverage of the U.S. National Center for Education Statistics’ Public and Private School Frames Using Data From the National Assessment of Educational Progress. Hyunshik Lee, John Burke, and Keith Rust, Westat, U.S.A.


Discussion Paper - Session 51: Discussion of School Sampling Frame Paper. Fritz Scheuren, The Urban Institute
Survey Issues in a Changing Agriculture Industry (Session 39)

Improving our Agricultural Statistics Program Through Easy and Fast Access by Employees to Previous Survey and Census Data. **Jack Nealon**, National Agricultural Statistics Service, USDA

Changes to the NASS Hog Survey Program to Accommodate Hog Industry Changes. **Bill Iwig**, Mike Pallesen, and Joe Prusacki, National Agricultural Statistics Service, USDA

Recent Developments in Maintaining Survey Frames for Agriculture Surveys at Statistics Canada. **Claude Julien**, Statistics Canada

Research into Improving Frame Coverage for Agriculture Surveys at Statistics Canada. **Mike Miller**, Ann Lim, and Jeannine Morabito, Statistics Canada

Designing Commodity Surveys (Session 7)

Multivariate Allocation for Commodity Surveys. **Paul Smith**, Office for National Statistics, United Kingdom


Discussion Paper - Session 7: Designing Commodity Surveys. **Katherine Thompson**, U.S. Census Bureau

Surveys of Commodity Flows: Problems and Improvements (Session 3)

Electronic Data Reporting in the Context of the Redesign of the Canadian For-Hire Trucking Origin/Destination Survey. **François Gagnon**, Steve Rathwell, and Yves Gauthier, Statistics Canada (Original Title: Electronic Data Collection for the Canadian For-Hire Trucking Origin and Destination Survey)


Workplace and Employment Surveys (Session 19)

Multiple Perspectives on Employment Relations: Experience from the 1998 Workplace Employee Relations Survey. **Mark Beatson**, Department of Trade and Industry, United Kingdom


The Methodology of the Workplace and Employee Survey. **Zdenek Patak**, Pierre Lavallée, and Michel Hidiroglou, Statistics Canada

Coordinating Sampling Between and Within Surveys (Session 31)


Issues in Coordinated Sampling at Statistics Canada. Don Royce, Statistics Canada

Coordination of PPS Samples Over Time. Esbjörn Ohlsson, Stockholm University


Estimation Strategies Using Variants of Poisson Sampling (Session 4)

The Theory and Practice of Maximal Brewer Selection with Poisson PRN Sampling. Phillip Kott and Jeffrey T. Bailey, National Agricultural Statistics Service, USDA

Estimators for Use with Poisson Sampling and Related Selection Procedures. Ken Brewer, Australian National University; and Timothy Gregoire, Yale University


Improving the Quality of Data Reporting in Business Surveys (Session 1)

Dedication / Obituary for Seymour Sudman


Exploratory Research at the U.S. Census Bureau on the Survey Response Process in Large Companies. Diane Willimack and Elizabeth Nichols, U.S. Bureau of Labor Statistics; and Seymour Sudman, University of Illinois; Thomas Mesenbourg, U.S. Census Bureau

Discussion Paper - Session 1: Improving the Quality of Data Reporting in Business Surveys. Sylvia Kay Fisher

Improving Response Rates of Business Surveys Using Integrated Communication Strategies (Session 15)

The New KONTIV Design: A Total Survey Design for Surveys on Mobility Behaviour. Werner Brög, Socialdata, Germany

The Best of Two Worlds: Total Design Method and New Kontiv Design an Operational Model to Improve Respondent Co-operation. Ger Snijkers and Martin Luppes, Statistics Netherlands


New Methods of Data Collection for Establishment Surveys (Session 50)

Use of New Data Collection Methods in Establishment Surveys. William Nicholls II (retired) and Thomas Mesenbourq. U.S. Census Bureau; Edith de Leeuw, MethodikA, Amsterdam; and Stephen Andrews, U.S. Bureau of Economic Analysis


(Original Title: The Use of CAI Data Collection in Business Surveys at Statistics Canada. Rolly Jamieson and Guy Parent, Statistics Canada).


Technology Driven Changes in Data Collection and Dissemination of Establishment Data (Session 34)


Collection and Uses of Education Data in Ethiopia. Nebiyu Tadesse, USAID, Ethiopia

Collection and Delivery of Government Information Through the Internet: The Chinese Case. Xueshan Yang, State Information Centre, Beijing; and Gary Huang, Synectics for Management Decisions, Inc.

Discussion Paper - Session 34: The Data, the Public, and the Polity. Mindy Reiser, Synectics for Management Decisions, Inc.

Web Surveys in Establishment Data Collection (Session 8)


Costs and Errors of Web Surveys in Establishment Surveys. K. Lozar, Z. Batagelj, V. Vehovar, and M. Zaletel, University of Ljubljana, Slovenia

Web-Based Collection of Economic Data at the U.S. Census Bureau. Barbara Sedivi, Elizabeth Nichols, and Howard Kanarek, U.S. Census Bureau

Priority Contact of Non-respondents (Session 20)


A Comparison of Mixed Mode Survey Strategies for Three Business Populations: Telephone with Mail Followup and Mail with Telephone Followup. Danna Moore and John Tarnai, Washington State University
(Original Title: A Comparison of Two Mixed Mode Survey Strategies: Telephone with Mail Followup and Mail with Telephone Followup. Data Moore and John Tarnai, Washington State University.)

Non Respondent Follow-up in Annual Business Surveys. Patrick Hernandez, Institut National de la Statistique et des Études Économiques (INSEE)
(Original Title: Non Respondent Follow-up in Annual Enterprise Surveys. Patrick Hernandez, Institut National de la Statistique et des Études Économiques (INSEE).

Statistical Graphics Tract (Session 2)

Visualizing the Future at Statistics Canada: Exploring the Potential of EDA. Daphne Bennett, Larry Murphy, and Jim Tebrake, Statistics Canada
(Original Title: Exploring the Potential of EDA: A Study of the Canadian Food Services Industry. Daphne Bennett, Larry Murphy, and Jim Tebrake, Statistics Canada).

Experiences of Introducing Exploratory Data Analysis Methods at Statistics Sweden. Catarina Elffors, Gunnar Arvidson, Leopold Granquist, and Anders Norberg, Statistics Sweden

The Main Barrier to Implementing an EDA Approach to Data Editing. Paula Weir, U.S. Energy Information Administration

The Continuous Improvement Approach to Editing: How to Improve Data Quality by Editing (Session 26)

Some Current Approaches to Editing in the ABS. Keith Farwell and Mike Raine, Australian Bureau of Statistics
Statistics Sweden's Editing Process Data Project. Svein Nordbotten, University of Bergen and Statistics Sweden

Design of Inlier and Outlier Edits for Business Surveys. David DesJardins and William Winkler, U.S. Census Bureau

Discussion Paper - Session 26: Discussion on the Continuous Improvement Approach to Editing - How to Improve Data Quality and Editing. Giulio Barcaroli, Italian Statistical Institute (ISTAT)

Practical Editing and Imputation Strategies for Statistical Surveys (Session 37)

Economic Census General Editing-Plain Vanilla. Dennis Wagner, U.S. Census Bureau

A Generic Implementation of the Nearest-Neighbour Imputation Methodology (NIM). Paul Poirier, Michael Bankier, Martin Lachance, and Patrick Mason, Statistics Canada

Graphical Macro Editing: Possibilities and Pitfalls. Ton De Waal, Frank Van De Pol, and Robbert Renssen, Statistics Netherlands

The Uses of Neural Network in Data Editing. Birger Madsen and Bjorn Steen Larsen, Statistics Denmark

New Developments in Imputation of Business Survey Data (Session 44)

Variance Estimation in the Presence of Imputation for Missing Data. J.N.K. Rao, Carleton University

(Original Title: Accounting for Imputation Error Variance for Data with Imputed Values. Thomas Krenske, Leyla Mohadjer, and Jill Montaquila, Westat, U.S.A.).


**Generalized Integrated Processing Systems (Session 32)**

An Overview of the Standard Economic Processing System (StEPS).  *Shirin A. Ahmed* and Deborah L. Tasky, U.S. Census Bureau


**Generalized Estimation Systems in Government Agencies (Session 9)**


**Outliers (Session 33)**

Robust Multivariate Outlier Detection Using Mahalanobis’ Distance and Modified Stahel-Donoho Estimators.  *Sarah Franklin,* Marie Brodeur, and Steven Thomas, Statistics Canada


Winsorization for Identifying and Treating Outliers in Business Surveys.  *Paul Smith* and Marie Cruddas, Office for National Statistics, United Kingdom; Ray Chambers, University of Southampton; Philip Kokic, Insiders GmbH


**Current Topics in Seasonal Adjustment (Session 21)**

An Application of TRAMO-SEATS: Changes in Seasonality and Current Trend-Cycle Assessment.  *Agustin*

Detection and Modeling of Trading Day Effects. David Findley and Raymond Soukup, U.S. Census Bureau


Discussion Paper - Session 21: Discussion of Kaiser and Maravall, Soukup and Findley, and Pfeffermann, Scott and Tiller Papers. Alistair Gray and Peter Thompson, Victoria University of Wellington, New Zealand

Trend Estimation (Session 14)

Trend Estimation at the Ends of Series Using Adaptive Semi-Parametric Local Dynamic Models. Alistair Gray, and Peter Thompson, Statistics New Zealand


Designing for Trend Estimation in Repeated Business Surveys. David Steel, University of Wollongong; Craig McLaren, Australian Bureau of Statistics

Discussion Paper - Session 14: Trend Estimation, David Findley, U.S. Census Bureau

Combining Survey and Administrative Data (Session 28)


Use of Business Income Tax Data to Extend the Information Available from the ABS Economy Wide Economic Activity Survey. Paul Sutcliffe and Steve Crabb, Australian Bureau of Statistics


Quality in Business Surveys (Session 38)

Assessing the Quality of Business Statistics. Pam Davies, Office for National Statistics, United Kingdom


A Quality Approach to Business Surveys. Patricia Whitridge and Stuart Pursey, Statistics Canada
Discussion Paper - Session 38: Evolution of Quality in Establishment Surveys Discussion. Mary March, Statistics Canada

**Statistical Disclosure Control for Establishment Data (Session 49)**

Using Noise for Disclosure Limitation of Establishment Tabular Data. Laura Zayatz, Timothy Evans, and John Slanta, U.S. Census Bureau

Model Based Disclosure Limitation for Business Microdata. Luisa Franconi, Italian Statistical Institute (ISTAT); and Julian Stander, University of Plymouth

Statistical Disclosure Control Software. Anco Hundepool, Statistics Netherlands


Discussion Paper - Session 49: Statistical Disclosure Control for Establishment Data. Larry Cox, U.S. Environmental Protection Agency

**A Metadata Primer for Survey Statisticians (Session 57)**


Metadata Standards and Metadata Registries: An Overview. Daniel Gillman, U.S. Census Bureau and Bruce Bargmeyer, U.S. Environmental Protection Agency

Use of Metadata for the Effective Integration of Data from Multiple Sources. Mark Wallace and Sam Highsmith, U.S. Census Bureau

Statistical Metadata: The Real World of Implementation. Ernie Boyko, Statistics Canada; and Michael Colledge, Organization for Economic Co-operation (OECD)

**The Human Side of Data Dissemination (Session 27)**

Intermediaries as Users of Statistical Data. Carol Hert, Syracuse University. (Paper not submitted for publication).

Interfaces to Support Customized Views and Manipulation of Statistical Data. Gary Marchionini, University of North Carolina

The Role of Knowledge Representation in Managing Statistical Information. Stephanie Haas, University of North Carolina


**Linking Longitudinal Business and Household Data (Session 55)**


The New Worker-Employer Characteristics Database. Kimberly Bayard, Judith Hellerstein, and David Neumark, University of Maryland; and Kenneth Troske, University of Missouri-Columbia
Integrating Agriculture and Food Statistics: National and International Perspectives (Session 43)


Data Integration and its Role in the Development of Better Agriculture and Food Information Systems. **Ladislav Kabat**, L. Naiken, and P. Narain, Statistics Division of the Food and Agriculture Organization

(Original Title: Discussion Paper: Rich Allen, National Agricultureal Statistics Service, USDA)

Principles and Practices in the Measurement of the Unrecorded Economy (Session 45)

A Systematic Approach to the Hidden and Informal Activities. **Ronald Luttikhuizen** and Brugt Kazemier, Statistics Netherlands


(Original Title: Estimation of Unobserved Economy in the Statistical Practices of Russia. Irina Masakova and Tatiana Fedorovskaya, State Statistical Committee of the Russian Federation (Goskomstat))


Plans of Government Agencies for Research in Establishment Surveys (Panel Session) (Session 56)

Panelists Papers:


Research in Establishment Surveys at Statistics Canada. Don Royce, Statistics Canada

Some Future Research Needs in Establishment Surveys at the U.S. Bureau of Census. Charles Pautler, U.S. Census Bureau

Plans for Research into Business Surveys Methods at ABS. Geoff Lee, Australian Bureau of Statistics

Discussion Paper - Session 56: Discussion of Plans of Government Agencies for Research in Establishment Surveys. Ray Chambers, Department of Social Statistics, University of Southampton, UK

Evolving Frames and Registers (Session 5)

Measuring Business Entries and Exits. **Philippe Gagné** and Gerrit Faber, Statistics Canada
Estimating the Effects of Birth and Death Lags on a Business Register. Mark Pont and Trevor Fenton, Office for National Statistics, United Kingdom; and Dan Hedlin, University of Southampton

Surveys of Business Register Quality in Central European Countries. Paul Smith and John Perry, Office for National Statistics, United Kingdom

Improving the Quality and Use of the UK's Business Register. Mark Pont, John Perry, Mike Prestwood, and Andrew Stephens, Office for National Statistics, United Kingdom


Data Analysis And Kind of Business Activity (Session 6)

Evaluation of Differences Between 1997 Retail Trade Census and Annual Estimates. Tameka J. Johnson and Carol S. King, U.S. Census Bureau

A Straightforward Visualization Methodology for Exploring Employee Attitude Surveys Within Large Corporations. Dave Yearling, Mark Gilbert, Diane Warne, and Paul Mountstephen, BT Research Laboratories, United Kingdom

Mapping Smoothed Values of Geo-Coded Survey Data. Teresa M. Neeman, Australian Bureau of Agricultural and Resource Economics, Australia


Satellite Accounts for Trade: How to Build Them and How to Set Up Suitable Data. Silvia Biffignandi and Stefano Pisani, University of Bergamo, Italy

Some Lessons Learned from Conducting a National Health Insurance Survey of Establishments (Session 10)

Evaluation of Dun and Bradstreet's DMI File as an Establishment Survey Sampling Frame. Christopher L. Moriarity, National Center for Health Statistics; and David W. Chapman, Federal Deposit Insurance Corporation

Techniques for Sampling Establishments in Multi-Establishment Firms. David W. Chapman, Federal Deposit Insurance Corporation; and John Sommers, Agency for Health Care Research and Quality

Methods to Produce Establishment and Firm Level Estimates for an Economic Survey. John Sommers, Agency for Health Care Research and Quality

Imputation for Establishment Surveys: Lessons Learned from an Employer Health Insurance Survey. Leslie Wallace and David Marker, Westat, U.S.A.


Issues in Government Surveys 1 (Session 11)

Sampling Fiscal Data for the Agriculture Sector. Suzelle Giroux, Statistics Canada

Health Care Establishment Surveys of the National Center for Health Statistics. Thomas McLemore, National Center for Health Statistics
Measuring Energy Use in Commercial Buildings in Canada. André Bourbeau, Natural Resources Canada and Yves Morin, Statistics Canada

The Italian Experience in Surveys on Scientific Institutions. Mario De Marchi, Emanuela Reale, Maurizio Rocchi, and Anna Maria Scarda, Institute for Studies on Scientific Research and Documentation, Italy

Surveying Research and Development Funding and Performance by Nonprofit Organizations. Ronald S. Fecso, John Jankowski, and Mary V. Burke, U.S. National Science Foundation; Roger Tourangeau and Margrethe Montgomery, The Gallup Organization

Response in Government Surveys (Session 12)


Increasing Response Rates on Complex, Longitudinal Surveys in the Agricultural Sector. Kathleen Ott, National Agricultural Statistics Service, USDA

Discussion Paper - Session 12: Response in Government Surveys. Martin H. David, University of Wisconsin

Issues and Concepts in Facility Surveys (Session 16)


Struggling to Answer: The Role of Facility Characteristics in Response Problems in a Census of Juvenile Facilities. Sharon Birch, U.S. Census Bureau

Biases in Respondent Samples Within Establishments. Andrea J. Sedlak, Westat, U.S.A.


Strategies in Data Collection (Session 17)

Strategies for Collecting Occupational Wage Data. Pierre Caron, Sylvain Noël, and Cathy Connors, Statistics Canada

Cost-Recovery Business Surveys - Helping Policy Makers Acquire Information Required to Deal with Newly Arising Issues. Tony Labillois and Mary March, Statistics Canada

Data Capture Initiatives in the Collection of Business Data in the Office for National Statistics. John Kinder and David Baird, Office for National Statistics, United Kingdom

Improving the Efficiency of Data Collection and Validation Activities for Business Surveys. Ceri Underwood and Pat Thomas, Office for National Statistics, United Kingdom

The 1998 Survey of Small Business Finance: Sampling and Level of Effort Associated with Gaining Cooperation from Minority-Owned Businesses. Catherine Haggerty, Karen Grigorian, and Rachel Harter, National Opinion Research Center; and John Wolken, Federal Reserve Board
**Edit and Imputation (Session 18)**


**The Transition to the North American Industry Classification System (Session 22)**


The Transition of the U.S. Business Register to NAICS. Carl A. Konschnik, Paul S. Hanczaryk, and *Michael E. Kornbau*, U.S. Census Bureau

Implementing the NAICS for Business Surveys at BLS. Gordon Mikkelson, Teresa L. Morisi, and *George Stamas*, U.S. Bureau of Labor Statistics


**Survey Design 1: Trade and Financial Surveys (Session 23)**

Designing Retail, Wholesale, and Services Samples used for Surveys Conducted by the U.S. Census Bureau. *David Kinyon*, Donna Glassbrenner, Jock R. Black, and Ruth Detlefsen, U.S. Census Bureau

On Redesigning Canada's Service Industries Surveys. *Serge Legault* and Joe Kresovic, Statistics Canada


Retail Commodity Surveys, A Statistics Canada Experience. *Janet Sear*, Statistics Canada

**Sampling 1 (Session 24)**


Use of Multiple Frames for the Survey of Innovation 1999. **Brian Nemes** and Susan Schaan, Statistics Canada

Developing Measures of Size in a Dynamic Population. **Kennon R. Copeland** and Mary Ann Cornwall, IMS Health

Measuring and Evening Out the Response Burden in Business Surveys. **Erkki Pahkinen**, Ismo Teikari, and Terhi Tuominen, Statistics Finland

**Confidentiality and Data Access Issues (Session 29)**


A New Methodology in Statistical Disclosure Control: Partial Cell Suppression. **Matteo Fischetti**, University of Padova, and Juan José Salazar González, University of La Laguna

Data Licensing Agreements at U.S. Government Agencies and Research Organizations. **Paul B. Massell** and Laura Zayatz, U.S. Census Bureau


**Variance Estimation (Session 30)**


A Comparison of Jackknife and Bootstrap Methods for Variance Estimation in the Presence of Imputation in ONS Business Surveys. **Susan Full**, Office for National Statistics, United Kingdom

A Balanced Adjusted Confidence Interval Procedure Applied to Finite Population Sampling. **Per Gösta Andersson**, Linköpings University, Sweden; and Olle Nerman, Chalmers University, Sweden


**Data Collection Systems (Session 35)**

The MEASURE Project Service Provision Assessment: A Tool and Methodology to Collect Health Service Provision Information in Developing Countries. **Marilyn Wilkinson**, Abt Associates, and Devin O'Neill, Macro International


The O*NET Data Collection Program: Pretest Results of Methodological Experiments on Employee Respondent Incentives. **Randall Keesling**, Research Triangle Institute, U.S.A.; and John Nottingham, National Center for O*NET Development

Data Monitoring Via the Internet. **Cristina Fanizzi** and Cristina Mazzotta, Italian National Statistical Institute

**Improving Response (Session 36)**

Respondent Role as a Factor in Establishment Survey Response. *Eileen M. O’Brien*, U.S. Census Bureau


How to Get High Response Rates in Establishment Surveys. *Hans Bay*, SFI-Survey, Denmark


**Discussion Paper - Session 36: Improving Response.** Vicki Huggins, Abt Associates

**Survey Design 2: Other Government Surveys (Session 40)**


Integrating Non-Agricultural Surveys into one: An Indonesian Case Study. *Robert Torene*, Weidemann Associates; Robert Aten, USAID-Jakarta; Sri Budianti Sukmadi, Statistics Indonesia; Richard Sigman, U.S. Census Bureau; and Yahya Jammal, Boston Institute for Developing Economies

Redesign of the Canadian Small Motor Carriers of Freight Survey. *Steve Matthews*, Statistics Canada

**Statistical Methods to Address Nonresponse (Session 41)**


The Effects of Late Respondents on Retail Trade Monthly Indexes. Paolo Anitori, *Giovanna Brancato*, Roberto Gismondi, and Marina Signore, Italian National Statistical Institute

Mass Imputation When Missingness Varies Awkwardly Over Time. Pasi Piela and *Seppo Laaksonen*, Statistics Finland

Modelling Enterprise Response and Contact Probabilities in Web Surveys. *Silvia Biffignandi*, and Monica Pratesi, University of Bergamo, Italy
Time Series / Seasonal Adjustment (Session 42)

When Data Needs a History: Backcasting of the Capital Expenditures Survey. Yanick Beaucage, and John Foley, Statistics Canada

Monthly Survey of Manufacturing: Linking Series. Steven Thomas, Statistics Canada

A Modified Monthly Chain-Linked Index of Average Earnings Growth in the United Kingdom. Derek Bird and Robin Youll, Office for National Statistics, United Kingdom

Applying Calendarization: The Case of the Canadian Aquaculture Industry. Peter S. Tarassoff and Pierre A. Cholette, Statistics Canada

Totally Consistent Monthly and Yearly National Accounts. Karl-Gustav Hansson, Statistics Sweden

Sampling 2 (Session 46)

Comparisons Between Conditional Poisson Sampling and Pareto Sampling Designs. Nibia Aires, Chalmers University of Technology, Sweden

Ordered Poisson Mixture (POIMIX) Sampling. Ismo Teikari, Statistics Finland

Network Sampling: Actual Application in a Major Survey. Claude Girard and Michelle Simard, Statistics Canada

Sample Design and Allocation for a Multi-Objective Survey. Marie-Noëlle Parent and Michelle Simard, Statistics Canada


Estimation with Administrative Data (Session 47)

Estimating Indicators of Labour Input from Administrative Records Having Coverage and Measurement Errors. Alessandro Pallara, Piero Demetrio Falorsi, Raffaella Succi, and Marco Ballin, Italian National Institute of Statistics; Aldo Russo, University of Italy


A Study of Calibration Estimation Using Administrative Data for the Canadian Monthly Wholesale and Retail Trade Survey. Isabelle Marchand, François Gagnon, and Julie Trépanier, Statistics Canada

A Feasibility Study into the Use of Administrative Data in Place of Monthly Business Surveys of Turnover. Paul Moore and Gareth Jones, Office for National Statistics, United Kingdom


Managing and Linking Data (Session 48)


Informative Systems for the Multidimensional Management of Business Data. Lucia Buzzigoli, Cristina Martelli
Potentialities of NETLABOR: An Integrated Database on the Italian Labour Force and Enterprises. **Francesca Bassi**, University of Padua, Italy; Maurizio Gambuzza and Maurizio Rasera, Labour Agency, Venice, Italy

Suppression versus Disclosure: Confidentiality from a Subject Matter Point of View. **Bruno Pépin**, Statistics Canada


**Alternate Response Modes (Session 52)**

Assessing the Usability of an Electronic Survey Instrument in a Natural Use Context. **Lelyn D. Saner** and Kimberly D. Pressley, U.S. Census Bureau

Proxy Reports and Data Quality: Coverage and Accuracy Across Sites. **Brian Clarridge** and Lauri Scharf, Center for Survey Research, University of Massachusetts, Boston

Results of Cognitive Interviews Studying Alternative Formats for Economic Census Forms. **Kristin Stettler**, Rebecca Morrison, and Amy E. Anderson, U.S. Census Bureau


**Editing (Session 53)**


Applying the Generalized Edit/Imputation System AGGIES to the Annual Capital Expenditures Survey. **Maria Garcia** and Katherine J. Thompson, U.S. Census Bureau

Investigation of Selective Editing Procedures for the U.S. Census Bureau Economic Programs. **Susan Lynn Hostetter** and Katherine J. Thompson, U.S. Census Bureau


Discussion Paper - Session 53: Editing. **Carol S. King**, U.S. Census Bureau

**Issues in Estimation (Session 54)**

Inference from Non-Random Samples: A Maximum Entropy Approach. **Carlo Filippucci**, University of Bologna; and Rosa Bernardini Papalia, University of Perugia


Evaluation of the use of Spatial Modeling to Improve County Yield Estimates. **Chadd Crouse**, National Agricultural Statistics Service, USDA
Estimation When Many-to-Many Relationships Exist Between the Sampling and Collection Units. Lenka Mach, and Daniel Michaud, Statistics Canada

Conditional Inference for Small Area Estimation Methods in the Context of Istat Business Surveys. Francesca Inglese and Monica Russo, Istituto Nazionale di Statistica; Aldo Russo, Università degli Studi "Roma Tre"

Issues in Government Surveys 2 (Session 58)

Enhancing Postsecondary Student Information: Data Collection to Dissemination. Alan Goodall, Statistics Canada

Sample Frame Development and Management for Surveys of Social Establishments and Schools. Steven C. Tourkin, Frederick L. McKee, and Nancy R. Johnson, U.S. Census Bureau

Sampling Industrial Facilities to Measure Compliance with Environmental Laws Under Imperfect Detection. Richard Bolstein, Luiz Guimaraes, and Michael Paquette, George Mason University

The Sampling Design of Establishments and Enterprises in the Survey of Environmental Expenditure by Finnish Industry. Paavo Väisänen, Statistics Finland

Establishment Surveys of Industrial Sectors at the Environmental Protection Agency. Marla Smith, Jeanette Kranacs, U.S. Environmental Protection Agency

Programs to Classify Enterprises and Increase Survey Cooperation (Session 59)

Recent Changes to Legal Form of Organization and the Effect on Publications and the Business Register. David D. Chapman, U.S. Census Bureau

The Treatment of Head Offices and Other Support Units in the UES. Michel Tessier and Charles Delorme, Statistics Canada

Coherence Analysis of Large Enterprise Data. Jim Tebrake and Monique Gaudreau, Statistics Canada

The Challenge of Collecting Quality Data from Large Enterprises: Lessons Learned from the Key Provider Manager Approach. Monique Gaudreau and Janet Hughes, Statistics Canada

Developing Customer Relationship Management for Census Bureau Economic Programs. Robert A. Marske and Sidney O. Marcus III, U.S. Census Bureau
<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adler, Robert K.</td>
<td>Brewer, Ken</td>
</tr>
<tr>
<td>Ahmed, Shirin A.</td>
<td>Briggs, Jonathan</td>
</tr>
<tr>
<td>Aires, Nibia</td>
<td>Brodeur, Marie</td>
</tr>
<tr>
<td>Allen, Rich</td>
<td>Brög, Werner</td>
</tr>
<tr>
<td>Anderson, Amy E.</td>
<td>Burke, John</td>
</tr>
<tr>
<td>Andersson, Claes</td>
<td>Burke, Mary V.</td>
</tr>
<tr>
<td>Andersson, Per Gösta</td>
<td>Buszuwski, J.</td>
</tr>
<tr>
<td>Andrews, Stephen</td>
<td>Butani, Shail</td>
</tr>
<tr>
<td>Arcaro, Charlie</td>
<td>Buzzigoli, Lucia</td>
</tr>
<tr>
<td>Arvidson, Gunnar</td>
<td>Calzaroni, Manlio</td>
</tr>
<tr>
<td>Aten, Robert</td>
<td>Cantwell, Patrick J.</td>
</tr>
<tr>
<td>Atkinson, Dale</td>
<td>Caron, Pierre</td>
</tr>
<tr>
<td>Babyak, Colin</td>
<td>Castonguay, Élaine</td>
</tr>
<tr>
<td>Bailey, Jeffrey T.</td>
<td>Chambers, Ray</td>
</tr>
<tr>
<td>Baird, David</td>
<td>Chapman, David D.</td>
</tr>
<tr>
<td>Ballin, Marco</td>
<td>Chapman, David W.</td>
</tr>
<tr>
<td>Bankier, Michael</td>
<td>Cheung, Simon</td>
</tr>
<tr>
<td>Barcaroli, Giulio</td>
<td>Cholette, Pierre A.</td>
</tr>
<tr>
<td>Bargmeyer, Bruce E.</td>
<td>Cirianni, Alfredo</td>
</tr>
<tr>
<td>Barsky, C.</td>
<td>Clayton, Richard</td>
</tr>
<tr>
<td>Bassi, Francesca</td>
<td>Clarridge, Brian</td>
</tr>
<tr>
<td>Batagelj, Z.</td>
<td>Cohen, Michael</td>
</tr>
<tr>
<td>Bay, Hans</td>
<td>Cole, Stacey</td>
</tr>
<tr>
<td>Bayard, Kimberly</td>
<td>Colledge, Michael</td>
</tr>
<tr>
<td>Beatson, Mark</td>
<td>Connors, Cathy</td>
</tr>
<tr>
<td>Beaucage, Yanick</td>
<td>Conrad, Frederick G.</td>
</tr>
<tr>
<td>Beckler, Daniel G.</td>
<td>Copeland, Kennon R.</td>
</tr>
<tr>
<td>Bennett, Daphne</td>
<td>Cornwall, Mary Ann</td>
</tr>
<tr>
<td>Berg, Stefan</td>
<td>Cox, Larry</td>
</tr>
<tr>
<td>Bernier, Julie</td>
<td>Crabb, Steve</td>
</tr>
<tr>
<td>Biffignandi, Silvia</td>
<td>Crompton, Simon</td>
</tr>
<tr>
<td>Birch, Sharon</td>
<td>Crous, Chadd</td>
</tr>
<tr>
<td>Bird, Derek</td>
<td>Cruddas, Marie</td>
</tr>
<tr>
<td>Bitler, Marianne P.</td>
<td>Crystdale, John S.</td>
</tr>
<tr>
<td>Black, Jock R.</td>
<td>David, Martin H.</td>
</tr>
<tr>
<td>Bolstein, Richard</td>
<td>Davies, Pam</td>
</tr>
<tr>
<td>Bosley, John J.</td>
<td>Davis, Keith</td>
</tr>
<tr>
<td>Bourbeau, André</td>
<td>de Leeuw, Edith</td>
</tr>
<tr>
<td>Bournazian, Jacob</td>
<td>Delorme, Charles</td>
</tr>
<tr>
<td>Boyko, Ernie</td>
<td>De Marchi, Mario</td>
</tr>
<tr>
<td>Brancato, Giovanna</td>
<td>Dernulc, Simona</td>
</tr>
<tr>
<td>Names</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>Royce, Don</td>
<td></td>
</tr>
<tr>
<td>Russo, Aldo</td>
<td></td>
</tr>
<tr>
<td>Russo, Monica</td>
<td></td>
</tr>
<tr>
<td>Rust, Keith</td>
<td></td>
</tr>
<tr>
<td>Saavedra, Pedro</td>
<td></td>
</tr>
<tr>
<td>Salvucci, Sammena M.</td>
<td></td>
</tr>
<tr>
<td>Sande, Gordon</td>
<td></td>
</tr>
<tr>
<td>Saner, Lelyn D.</td>
<td></td>
</tr>
<tr>
<td>Scarda, Anna Maria</td>
<td></td>
</tr>
<tr>
<td>Schaan, Susan</td>
<td></td>
</tr>
<tr>
<td>Scharf, Lauri</td>
<td></td>
</tr>
<tr>
<td>Scheuren, Fritz</td>
<td></td>
</tr>
<tr>
<td>Scholetzky, Wendy J.</td>
<td></td>
</tr>
<tr>
<td>Scott, Stuart</td>
<td></td>
</tr>
<tr>
<td>Sear, Janet</td>
<td></td>
</tr>
<tr>
<td>Searson, Michael</td>
<td></td>
</tr>
<tr>
<td>Seeber, Angela Claudia</td>
<td></td>
</tr>
<tr>
<td>Sedivi, Barbara</td>
<td></td>
</tr>
<tr>
<td>Sedlak, Andrea J.</td>
<td></td>
</tr>
<tr>
<td>Stettler, Kristin</td>
<td></td>
</tr>
<tr>
<td>Shimizu, Iris</td>
<td></td>
</tr>
<tr>
<td>Sigman, Richard</td>
<td></td>
</tr>
<tr>
<td>Signore, Marina</td>
<td></td>
</tr>
<tr>
<td>Simard, Michelle</td>
<td></td>
</tr>
<tr>
<td>Slanta, John</td>
<td></td>
</tr>
<tr>
<td>Slater, Robin</td>
<td></td>
</tr>
<tr>
<td>Smith, J.</td>
<td></td>
</tr>
<tr>
<td>Smith, Marla</td>
<td></td>
</tr>
<tr>
<td>Smith, Paul</td>
<td></td>
</tr>
<tr>
<td>Smith, Philip</td>
<td></td>
</tr>
<tr>
<td>Snijkers, Ger</td>
<td></td>
</tr>
<tr>
<td>Sommers, John</td>
<td></td>
</tr>
<tr>
<td>Soukup, Raymond</td>
<td></td>
</tr>
<tr>
<td>Stamas, George</td>
<td></td>
</tr>
<tr>
<td>Stander, Julian</td>
<td></td>
</tr>
<tr>
<td>Steel, David</td>
<td></td>
</tr>
<tr>
<td>Stephens, Andrew</td>
<td></td>
</tr>
<tr>
<td>Struijs, Peter</td>
<td></td>
</tr>
<tr>
<td>Succi, Raffaella</td>
<td></td>
</tr>
<tr>
<td>Sudman, Seymour</td>
<td></td>
</tr>
<tr>
<td>Sukmadi, Sri Budianti</td>
<td></td>
</tr>
<tr>
<td>Sundgren, Bo</td>
<td></td>
</tr>
<tr>
<td>Sutcliffe, Paul</td>
<td></td>
</tr>
<tr>
<td>Tadesse, Nebiyu</td>
<td></td>
</tr>
<tr>
<td>Tarasoff, Peter S.</td>
<td></td>
</tr>
<tr>
<td>Tarnai, John</td>
<td></td>
</tr>
<tr>
<td>Tasky, Deborah L.</td>
<td></td>
</tr>
<tr>
<td>Tebrake, Jim</td>
<td></td>
</tr>
<tr>
<td>Teikari, Ismo</td>
<td></td>
</tr>
<tr>
<td>Tessier, Michel</td>
<td></td>
</tr>
<tr>
<td>Thomas, Pat</td>
<td></td>
</tr>
<tr>
<td>Thomas, Steven</td>
<td></td>
</tr>
<tr>
<td>Thompson, Katherine</td>
<td></td>
</tr>
<tr>
<td>Thompson, Peter</td>
<td></td>
</tr>
<tr>
<td>Tiller, Richard</td>
<td></td>
</tr>
<tr>
<td>Torelli, Nicola</td>
<td></td>
</tr>
<tr>
<td>Touregneau, Roger</td>
<td></td>
</tr>
<tr>
<td>Tourkin, Steven C.</td>
<td></td>
</tr>
<tr>
<td>Trépanier, Julie</td>
<td></td>
</tr>
<tr>
<td>Troske, Kenneth R.</td>
<td></td>
</tr>
<tr>
<td>Tucker, Clyde</td>
<td></td>
</tr>
<tr>
<td>Tuominen, Terhi</td>
<td></td>
</tr>
<tr>
<td>Underwood, Ceri</td>
<td></td>
</tr>
<tr>
<td>Väisänen, Paavo</td>
<td></td>
</tr>
<tr>
<td>Van De Pol, Frank</td>
<td></td>
</tr>
<tr>
<td>Vehovar, V</td>
<td></td>
</tr>
<tr>
<td>Viviani, Alessandro</td>
<td></td>
</tr>
<tr>
<td>Viviano, Caterina</td>
<td></td>
</tr>
<tr>
<td>Vogel, Fred A.</td>
<td></td>
</tr>
<tr>
<td>Wagner, Dennis</td>
<td></td>
</tr>
<tr>
<td>Wallace, Leslie</td>
<td></td>
</tr>
<tr>
<td>Wallace, Mark E.</td>
<td></td>
</tr>
<tr>
<td>Wannel, Ted</td>
<td></td>
</tr>
<tr>
<td>Warne, Diane</td>
<td></td>
</tr>
<tr>
<td>Weir, Paula</td>
<td></td>
</tr>
<tr>
<td>Werking, George</td>
<td></td>
</tr>
<tr>
<td>West, S.</td>
<td></td>
</tr>
<tr>
<td>Whitridge, Patricia</td>
<td></td>
</tr>
<tr>
<td>Wilkinson, Marilyn</td>
<td></td>
</tr>
<tr>
<td>Willeboonrdse, A.J.</td>
<td></td>
</tr>
<tr>
<td>Willimack, Diane</td>
<td></td>
</tr>
<tr>
<td>Wings, Hans</td>
<td></td>
</tr>
<tr>
<td>Winkler, William</td>
<td></td>
</tr>
<tr>
<td>Wolford, John</td>
<td></td>
</tr>
<tr>
<td>Wolken, John</td>
<td></td>
</tr>
<tr>
<td>Yang, Xueshan</td>
<td></td>
</tr>
<tr>
<td>Yearling, Dave</td>
<td></td>
</tr>
<tr>
<td>Youll, Robin</td>
<td></td>
</tr>
<tr>
<td>Ypma, Winfried</td>
<td></td>
</tr>
</tbody>
</table>
Zaletel, Metka .............................................
Zanuto, Elaine..............................................
Zaroski, Rae-Anne.................................
Zayatz, Laura..............................................