



International Conference on Census Methods

Thursday—Friday

July 31—August 1, 2014

The Keck Center of

The National Academies

Washington, DC

Sponsored by the U.S. Census Bureau

NATIONAL RESEARCH COUNCIL

OF THE NATIONAL ACADEMIES

International Conference on Census Methods

July 31 – August 1, 2014

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The National Academy of Sciences  
500 5th Street NW

Lecture Hall 100

### Agenda

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The Committee on National Statistics (CNSTAT) of the U.S. National Research Council is convening an international conference on 2020-round census methods. The conference is funded through the CNSTAT Panel to Review the 2010 Census (and plan for 2020), which in turn is sponsored by the U.S. Census Bureau, and is organized around four priority research areas identified in that panel's work:

- **Self-response options (Internet).** Experience with Internet self-response, including approaches to ensure that households are enumerated at their correct home location. Strategies for pre-census notification and electronic registration.
- **Administrative records (AR).** Used for enumeration, particularly for non-responding households. The expansion of their use in multiple census operations. Of interest are the experiences of countries which have expanded their use of AR in recent censuses, and how the public react to its use.
- **Geographic resources.** How do countries maintain the accuracy of such records, particularly when cost considerations preclude a major pre-census update? How has the spread of geographic information systems to local governments improved the ability of a national government to keep its maps and address lists current?
- **Field operations reengineering.** Strategies to save money through improved logistics, interactive routing of enumerators, and so forth. The development of systems for automating enumerator assignments and the retooling of traditional census infrastructure i.e., local or regional census offices.

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**Sponsored by the U.S. Census Bureau**

**THE NATIONAL ACADEMIES**

*Advisers to the Nation on Science, Engineering, and Medicine*

NATIONAL ACADEMY OF SCIENCES • NATIONAL ACADEMY OF ENGINEERING • INSTITUTE OF MEDICINE • NATIONAL RESEARCH COUNCIL

**Day 1: Thursday, July 31, 2014 (Lecture Hall 100); 9:00 AM – 4:30 PM**

**9:00 AM**      Welcome, Introductions, and Conference Goals

- **Connie Citro**, *Director, Committee on National Statistics*
- **John Thompson**, *Director, U.S. Census Bureau*
- **Dan Cork**, *Senior Program Officer, Committee on National Statistics*

(*breakfast* available outside lecture hall 100 from 8:00 AM)

**9:30**            Topic 1: Field Reengineering

~ **Moderator: Dan Cork**, *Committee on National Statistics*

~ **Presenters:**

- **Andrea Diniz da Silva** (Brazil), *Contemporary Developments in Census-Taking: The 2010 Brazilian Census and Beyond*
- **Janusz Dygaszewicz** (Poland), *Modern Census - Polish Case Study*
- **Sean Crick** (Australia), *Future Directions in Field Enumeration for the Australian Census*

**10:45**            **BREAK** (refreshments available outside lecture hall 100)

**11:00**            Topic 1: Field Reengineering, Cont'd

~ **Presenters:**

- **Michael Holland** (New Zealand), *Modernizing the New Zealand Census*
- **Patrice Mathieu** (Canada), *Field Reengineering of the Canadian Census*
- **Dan Cork**, *Comments on Gene Lorica's presentation and papers*

**Q&A**

**12:30 PM**      **LUNCH**; outside lecture hall 100

**1:30**            Topic 2: Administrative Records

~ **Moderator: Warren Brown**, *Cornell University*

~ **Presenters:**

- **Pnina Zadka** (Israel), *Use of Registers in the Traditional Censuses and in the 2008 Integrated Census*
- **Jantien van Zeijl** (The Netherlands), *From Traditional to Register-Based Censuses in the Netherlands*
- **Tom Mule** (United States), *2020 Census: Researching the Use of Administrative Records During Nonresponse Follow-up*

2:45 **BREAK** (refreshments available outside lecture hall 100)

3:00 Topic 2: Administrative Records, Cont'd

~ **Presenters:**

- **John Dunne** (Ireland), *Population Estimates for Ireland Using Administrative Data Sources - First Steps*
- **Robert Beatty** (Northern Ireland), *2011 Census: Using Administrative Data to Address Under-Enumeration*

Q&A

4:15 Wrap-Up

4:30 PM Planned Adjournment

**Day 2: Friday, August 1, 2014** (Lecture Hall 100); 9:00 AM – 4:45 PM

9:00 AM Topic 3: Geographic Databases

~ **Moderator:** Jack Baker, *University of New Mexico*

~ **Presenters:**

- **Miriam Mattos da Silva Barbuda** (Brazil), *The Brazilian Experience in Updating Geographic Databases for Surveys and Census*
- **Joe Kresovic** (Canada), *Geographic Infrastructure to Support the Canadian Census*
- **Tim Trainor** (United States), *The 2020 Census Address Canvassing: An Alternative Approach to a Full Address List Verification*
- **Sean Crick** (Australia), *Maintaining an Address Register with Administrative Data*

(*breakfast* available outside lecture hall 100 from 8:00 AM)

10:30 **BREAK** (refreshments available outside lecture hall 100)

10:45 Topic 3: Geographic Databases, Cont'd

~ **Presenters:**

- **Alistair Calder** (England), *Geography and Addresses - Why Excellent Isn't Good Enough*

- **Janusz Dygaszewicz** (Poland), *Statistical Data Assignment - From Area to Address Point*
- **Sharthi Laldaparsad** (South Africa), *Geographic Databases: From Population Censuses to Fundamental Framework Data for Statistics to National Development Planning, Monitoring, and Evaluating, South Africa*

## Q&A

**12:15 PM** *LUNCH*; outside lecture hall 100

## **1:15** Topic 4: Self-Response Options (Internet)

~ **Moderator: George Ligler**, *GTL Associates*

~ **Presenters:**

- **Ian Cope** (England), *2011 Online Census in England and Wales*
- **In-Hye Kim** (Republic of Korea), *Internet Option in the 2010 Census in Korea*
- **Jo Runjajic** (Australia), *Pre-registration and Digital Contact - Future Directions*
- **Patrice Mathieu** (Canada), *Internet Data Collection in the Canadian Census*
- **Yasuko Horita** (Japan), *Internet Survey Method in the Population Census of Japan and Big Challenges for the 2015 Census in Japan*

**3:15** *BREAK* (refreshments available lecture hall 100)

## **3:30** Topic 4: Self-Response Options (Internet), Cont'd

~ **Presenter:**

- **Diana Beltadze** (Estonia), *Combined Census Methodology in 2011 Census in Estonia*

## Q&A

## **4:15** Capstone Remarks

~ **Presenter:**

- **Ivan Fellegi** (Canada), *Chief Statistician, Emeritus*

## **4:45 PM** Planned Adjournment

# Logistics Sheet

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[On entering the [Keck Center's](#) main lobby, inform the guard at the desk that you are attending the *International Conference on Census Methods* in Lecture Hall 100 and present a photo ID]

**Dates, times, location**      **Thursday, July 31, 2014 (9:00 AM – 4:30 PM)**  
**Friday, August 1, 2014 (9:00 AM – 4:45 PM)**  
The Keck Center of the National Academies  
500 5th Street NW, Lecture Hall 100 (see floor plan below)  
Washington, DC 20001 ([Mapquest](#))

[conference room 201 will be used as an overflow room]

**Metro and parking**      **Judiciary Square** (Red Line) is one block from the Keck Center  
**Free parking** in garage at rear of Keck Center (on 6th Street NW between E and F Streets) next to fire station

**Meals and breaks**      **Thursday, July 31**  
Breakfast: From 8:00 AM outside Lecture Hall 100  
Lunch: 12:30 PM outside Lecture Hall 100  
Breaks: 10:45 AM and 2:45 PM (refreshments available)

**Friday, August 1**  
Breakfast: From 8:00 AM outside Lecture Hall 100  
Lunch: 12:15 PM outside Lecture Hall 100  
Breaks: 10:30 AM and 3:15 PM (refreshments available)

**Communications**      CNSTAT website: [www.nationalacademies.org/cnstat](http://www.nationalacademies.org/cnstat)  
WebEx accessible (see below for instructions to join)  
Free wireless Internet access throughout building

**Presentations**      To save paper, presentations will only be available for viewing/printing on the [CNSTAT website](#) (hard-copies will not be available on the conference days)

**Contact:** Anthony Mann; [amann@nas.edu](mailto:amann@nas.edu); Cell: 703-472-8154

## Joining the Conference via WebEx

### **Thursday, July 31, 2014**

**Time:** 9:00 AM (EDT); **Meeting Number:** 744 877 908; **Meeting Password:** Not required

To join the online meeting:

1. Go to:  
<https://nationalacademies.webex.com/nationalacademies/j.php?ED=267393857&UID=0&RT=MiMxMQ%3D%3D>
2. If requested, enter your name and email address
3. If a password is required, enter the meeting password (Password not required.)
4. Click "Join"

### **Friday, August 1, 2014**

**Time:** 9:00 AM (EDT); **Meeting Number:** 747 386 408; **Meeting Password:** Not required

To join the online meeting:

1. Go to:  
<https://nationalacademies.webex.com/nationalacademies/j.php?ED=267394852&UID=0&RT=MiMxMQ%3D%3D>
2. If requested, enter your name and email address
3. If a password is required, enter the meeting password (Password not required.)
4. Click "Join"

WebEx will automatically setup Meeting Manager the first time you join a meeting. To save time, you can setup prior to the meeting by clicking this link:

<https://nationalacademies.webex.com/nationalacademies/meetingcenter/mcsetup.php>

To view in other time zones or languages, please click the link:

<https://nationalacademies.webex.com/nationalacademies/j.php?ED=267393857&UID=0&ORT=MiMxMQ%3D%3D>

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### **To join the teleconference only**

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Provide your phone number when you join the meeting to receive a call back. Alternatively, you can call:

Call-in toll-free number: 1-(866) 668-0721 (US)

Call-in number: 1-(845) 977-0098 (US)

Show global numbers:

<https://www.tcconline.com/offSite/OffSiteController.jsp?cc=8163970157>

Conference Code: 816 397 0157

## Biographical Sketches

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### SPEAKERS

**CONSTANCE F. CITRO** is director of the Committee on National Statistics, a position she has held since May 2004. She previously served as acting chief of staff (December 2003-April 2004) and as senior study director (1986-2003). She began her career with CNSTAT in 1984 as study director for the panel that produced *The Bicentennial Census: New Directions for Methodology in 1990*. Dr. Citro received her B.A. in political science from the University of Rochester, and M.A. and Ph.D. degrees in political science from Yale University. Prior to joining CNSTAT, she held positions as vice president of Mathematica Policy Research, Inc., and Data Use and Access Laboratories, Inc. She was an American Statistical Association/National Science Foundation/Census research fellow in 1985-1986, and is a fellow of the American Statistical Association and an elected member of the International Statistical Institute. For CNSTAT, she directed evaluations of the 2000 census, the Survey of Income and Program Participation, microsimulation models for social welfare programs, and the NSF science and engineering personnel data system, in addition to studies on institutional review boards and social science research, estimates of poverty for small geographic areas, data and methods for retirement income modeling, and a new approach for measuring poverty. She coedited the 2nd–5th editions of *Principles and Practices for a Federal Statistical Agency*, and contributed to studies on measuring racial discrimination, expanding access to research data, the usability of estimates from the American Community Survey, the National Children’s Study research plan, and the Census Bureau’s 2010 census program of experiments and evaluations.

**THOMAS M. COOK** is founding partner of Decision Analytics International, a global consulting firm specializing in advanced analytics, former president of SABRE Decision Technologies, former chairman and CEO of CALEB Technologies Corporation, and former senior counselor at McKinsey and Company. In his career at AMR Corporation, he was director of operations research for American Airlines from which SABRE emerged as a separate entity. He has also held positions at the University of Tulsa and Arthur Young and Company. He was elected to the National Academy of Engineering in 1995 for leadership in advancing operations research within the transportation industry, and has served as president of the Institute of Management Sciences and the Institute of Operations Research and the Management Sciences (INFORMS). He has an M.A. degree in business administration from Southern Methodist University, and a Ph.D. degree in operations research from the University of Texas.

**JOHN H. THOMPSON** is director of the U.S. Census Bureau, a position he has held since 2013. Prior to this, he was president of the National Opinion Research Center (NORC) at the University of Chicago, and executive vice president for survey operations, in which capacity he provided oversight and direction for NORC’s Economics, Labor Force, and Demography Research Department and the Statistics and Methodology Department. He also served as project director for the National Immunization Survey, conducted on behalf

of the Centers for Disease Control and Prevention from November 2004 through July 2006. He joined NORC following a 27-year career at the U.S. Census Bureau, culminating in service as principal associate director for programs. As associate director for decennial census (1997–2001), he was the chief operating officer of the 2000 census, overseeing all aspects of census operations. In this capacity, he also chaired the Bureau's Executive Steering Committee for Accuracy and Coverage Evaluation Policy, an internal working group tasked to provide guidance to the director of the Census Bureau and the secretary of commerce concerning statistical adjustment of 2000 census figures. He also provides leadership in the social science research community. An elected fellow of the American Statistical Association (ASA), he is chair of the Social Statistics Section of the ASA and he chaired the 2009 ASA Committee on Fellows. He has been elected to serve a 3-year term as a member of the Committee on National Statistics at the National Academy of Sciences. He participated as a member of the Panel on the Design of the 2010 Census Program of Evaluations and Experiments sponsored by the Committee on National Statistics. He has B.A. and M.A. degrees in mathematics from Virginia Polytechnic Institute and State University.

## MODERATORS

**JACK BAKER** is senior research scientist in the Geospatial and Population Studies Unit at the University of New Mexico. His day-to-day work involves methodological research, production of small-area demographic estimates, and collaborative work with the U.S. Census Bureau's Population Division. His scientific research focuses primarily on methods for modeling small area populations using incomplete data, geospatial demographic methods, historical demography, and biodemography. Since 2006, he has had an ongoing commitment to the Federal-State Cooperative Program on Population Estimates (FSCPE), where he serves on numerous working subcommittees (research methods, geography, group quarters, and count review) as well as its vice chair. He participated extensively in preparations for the 2010 census, with an emphasis on Master Address File (MAF) improvement efforts including the 2010 Local Update of Census Addresses (LUCA) program and the 2010 Count Review Program (chairing the FSCPE committee that focused on redesigning this process and as a consultant to the Bureau on use of GIS technology to perform the review). He has a B.A. degree from the University of North Dakota, and M.S. and Ph.D. degrees in anthropology from the University of New Mexico.

**WARREN BROWN** is senior research associate in the Cornell Institute for Social and Economic Research at Cornell University. He manages Cornell's secure data services for restricted access data sets, including Cornell's Census Research Data Center. Dr. Brown is vice president of the Association of Public Data Users, a national association conducting educational programs for users of government statistics. Before joining Cornell University in July 2011, he directed the Applied Demography Program at the Carl Vinson Institute of Government at the University of Georgia. The Applied Demography Program provided technical assistance in the analysis and use of demographic information to state and local governments in Georgia. He served on the Steering Committee of the National State Data Center Network, a cooperative partnership program between the U.S. Census Bureau and

the states, and as the University of Georgia's representative to the Atlanta Census Research Data Center, a consortium of research institutions in the Atlanta region. He has authored a Census Bureau produced handbook for researchers on using American Community Survey data. He has been an expert witness in two census-related cases; they were cases in which population thresholds had been crossed so as to allow establishment of a new school district in one case and local control of roadside billboards in the other. In September 2006, Dr. Brown was invited by the House Subcommittee on Federalism and the Census to testify on the Census Bureau's population estimates program. He has been awarded three research contracts with the Census Bureau's Population Estimates Branch, one of which is current and the other two completed. He served as a member of the Athens-Clarke County 2010 Census Complete Count Committee, encouraging residents in the county to respond to the census. He has a B.A. degree in religious studies from the University of Virginia, an M.A. degree in sociology from the New School for Social Research, and a Ph.D. degree in development sociology from Cornell University.

**THOMAS M. COOK** is founding partner of Decision Analytics International, a global consulting firm specializing in advanced analytics, former president of SABRE Decision Technologies, former chairman and CEO of CALEB Technologies Corporation, and former senior counselor at McKinsey and Company. In his career at AMR Corporation, he was director of operations research for American Airlines from which SABRE emerged as a separate entity. He has also held positions at the University of Tulsa and Arthur Young and Company. He was elected to the National Academy of Engineering in 1995 for leadership in advancing operations research within the transportation industry, and has served as president of the Institute of Management Sciences and the Institute of Operations Research and the Management Sciences (INFORMS). He has an M.A. degree in business administration from Southern Methodist University, and a Ph.D. degree in operations research from the University of Texas.

**GEORGE T. LIGLER** is an independent consultant in North Carolina in computer and telecommunications system engineering, with 41 clients on 3 continents. At the National Research Council, he served on the Computer Science and Telecommunications Board's Committee to Review the Tax Systems Modernization of the Internal Revenue Service and as a member of CNSTAT's Panel on Research on Future Census Methods (2010 census planning). In March 2008, his background and experience on the 2010 census planning panel led to his being named as a member of an independent expert panel to advise then-commerce secretary Carlos Gutierrez on options for correcting major problems with the Census Bureau's Field Data Collection Automation (FDCA) contract. The FDCA contract covered the development of handheld computers for major census operations and design of operations control systems. His term of service on the secretary's expert panel was officially six months (March–September), but the active engagement was only for about a week. A Rhodes scholar, he received his B.S. degree in mathematics from Furman University, and his M.Sc. and D.Phil. degrees from Oxford University.

## PRESENTERS

### TOPIC 1: Field Reengineering

**SEAN CRICK** is director of the address register, at the Australian Bureau of Statistics (ABS). He started his career at the ABS in 2005, working across a range of economic statistical collections. Highlights of his time in economic statistics, include: leading the development of a number of industry collections, including transport, manufacturing, and health industries; and leading the annual economic survey of Australian businesses. During 2011, he spent time working with the National Directorate of Statistics in Timor Leste on the development and publication of their first economic activity survey. Since 2011, he has worked on the development of the 2016 Australian Census of Population and Housing, with responsibility for the development of the ABS address register. He has a bachelor of commerce degree, and is currently studying for a master's in actuarial science, both at the University of Melbourne.

**ANDREA DINIZ DA SILVA** is chief of studies on alternative methodology of census in the Directorate of Surveys at the Brazilian Institute of Geography and Statistics (IBGE). She also serves as professor of statistics in the graduation program of the School of Law at Fundação Getulio Vargas, and as a researcher for the group Human Rights, Judicial Power, and Society. She is a member of the Brazilian Statistical Association, the Brazilian Population Studies Association, the International Statistical Institute, and the International Association for Official Statistics. She started her career as a researcher on human rights, and she has conducted many surveys, and has been a consultant, on the protection system for children and adolescents and on the impacts of national and international human rights laws. Previously, she worked in the United Nations Statistics Division, and was a researcher at the University of the State of Rio de Janeiro. She has written papers on the Brazilian Post Enumeration Survey and on alternative methodologies for census, both of which have been presented at national and international conferences. She has an M.A. degree in population studies and social survey from the National School of Statistical Science.

**JANUSZ DYGASZEWICZ** is director of programming and coordination in the Statistical Surveys Division at the Central Statistical Office of Poland, as well as director of the Central Census Bureau for the 2010 and 2011 censuses in Poland. His experience includes, IT technology, GIS technology, statistics, spatial data and spatial analysis, enterprise architecture, computer sciences, and telecommunication, and he has experience in the field of computerization of public administration. From 2002 to 2006, he was IT adviser for the General Surveyor of Poland and also creator and manager of the GEOPORTAL.GOV.PL project. Currently, he is a member of numerous steering committees and consulting councils, including: government commission for the INSPIRE directive; head of the UNECE task force on census technology; and member of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). He also serves as a lecturer in computer sciences and statistics in geographic information systems at the Warsaw

University of Technology, and is currently undertaking postgraduate Ph.D. studies in the Department of Cybernetics at the Military Technical Academy in Poland.

**MICHAEL HOLLAND** is a senior analyst for the New Zealand Census of Population and Dwellings. He started his career with Statistics New Zealand in the 1970s, and has been involved in the development and operational aspects of a number of social and economic surveys. His passion is the census of population and dwellings, and he has played a pivotal role in the development of systems and processes for each census since 1976. He provides advice and guidance across all phases of the census program. For the 2013 census, in his role as the senior technical advisor, he provided leadership for the automation of field area design and development of a more efficient collection model to be introduced at the 2018 census. Currently, he is involved in the modernization of field processes for the 2018 census.

**PATRICE MATHIEU** is a senior methodologist in the Social Survey Methods Division at Statistics Canada. He joined Statistics Canada in 1999, and since this time he has worked on numerous projects related to social and business surveys. He started working for the Canadian census of population in 2010; his team is responsible for the methodology of the census collection. His 15 years of experience at Statistics Canada, includes experience in survey methodology, sampling, data collection, weighting, and variance estimation for complex cross-sectional and longitudinal surveys. His involvement in international projects, includes the development of the first joint Canada/United States Survey of Health in partnership with the U.S. National Center for Health Statistics, and participation in the 2016 Australian Census International Peer Review, as a panel member representing Canada. He has a bachelor's degree in mathematics, and a master's degree in statistics, both from the University of Montreal.

## **TOPIC 2: Administrative Records**

**ROBERT BEATTY** is head of the Census Office in the Northern Ireland Statistics and Research Agency (NISRA), the official statistics agency of the Northern Ireland government. After graduating, he worked as a R&D statistician in the tobacco industry where he designed and analyzed experiments. After a short period in market research, he joined NISRA, where he initially worked on National Accounts. In the late 1990s, he became head of demography, where he was responsible for expanding Northern Ireland demographic statistics in areas such as population and household projections, and initiating longitudinal studies. He was responsible for the statistical analysis of the 2001 census in Northern Ireland. Subsequently, he became head of census, and was responsible for all aspects of the 2011 census. He has undergraduate degrees in pure mathematics and statistics, and an M.Sc. in economics. He is also a chartered statistician.

**JOHN DUNNE** is a career statistician working for the Central Statistics Office (CSO) in Ireland, a position he has held since 1993. He is currently responsible for a division that includes the Administrative Data Centre, Methodology and Internal Audit. He is also involved with the development of the broader statistical system in Ireland. In 2009, he was

charged with setting up the Administrative Data Centre (ADC) at CSO. The role of the ADC is twofold: act as a clearing house for all administrative data being collected by the CSO; act as a catalyst for the development of the broader Irish statistical system through the exploitation of administrative data sources. His interests in administrative data sources have recently extended to include other secondary data sources including “Big” data. He coauthored a recent paper *Rationale for a National Data Infrastructure* with the purpose of influencing and leading change in how the Irish public sector considers its data systems. He has a master’s degree in statistics from University College Dublin, and an MBA degree from University College Cork.

**THOMAS MULE** is a mathematical statistician in the Decennial Statistical Studies Division at the U.S. Census Bureau. He is also team leader of the administrative records modeling team that is researching how administrative records can be used in the 2020 census to reduce the nonresponse follow-up operation.

**JANTIEN VAN ZEIJL** is a statistical researcher and project leader of the 2011 census team at Statistics Netherlands. She started her career as a researcher in child and family studies at Leiden University from where she received her M.A. and Ph.D. degrees. During her graduate studies she also worked at the Dutch Consortium for Research in Child Care. Dr. van Zeijl joined Statistics Netherlands in 2006, and changed her focus from research analyses to project management. Starting in the field of education, and continuing in causes of death statistics, she now works on the census and the system of Social Statistical Datasets (SSD). Dr. van Zeijl is responsible for the 2011 Dutch virtual census, where census data hypercubes are based on already available data sources (register and survey).

**PNINA ZADKA** serves as deputy director general and senior director of the Census and Demography Department at the Central Bureau of Statistics in Jerusalem, a position she has held since 2005. In this capacity, she managed the 2008 integrated census for Israel. Her areas of responsibility, include: census, population, demography, health, GIS, welfare, and crime. Prior to this, she served as senior director of the Infrastructure Economic Department and senior deputy director of the Social and Welfare Statistics Department at the Central Bureau of Statistics. She received a fellowship award, and worked as an associate researcher at the Research in Ageing Center, University of Miami in Florida, and as a WHO temporary advisor for environment and health statistics. She has published papers on such topics as: infant mortality; aging; patterns of gender differences in mortality; injury statistics; estimates on the use of pesticides in agriculture; and census methods and operations. She has a bachelor’s degree in mathematics and statistics, and an M.P.H. in biostatistics, both from the Hebrew University.

### **TOPIC 3: Geographic Databases**

**ALISTAIR CALDER** is senior methodologist, addresses and matching, at the Office for National Statistics (ONS) in the United Kingdom. He has a background in GIS and cartography and introduced digital mapping to Harper Collins and Bartholomew in the mid-1980s, developing software and new production systems for the Times World and

History Atlases. He joined ONS around 20 years ago, leading first on GIS and geography policy and later on area based analysis. He led work to construct the address register used for the 2011 census in England and Wales—widely considered as a ground-breaking and highly successful project. More recently, he took the lead on Stakeholder Engagement and Communications on Beyond 2011—the ONS program investigating options for the 2021 census. He now leads a part of ONS’s Research, Development, and Infrastructure Directorate and, amongst other projects, is again overseeing work looking at the address frame for census and other statistical uses.

**SEAN CRICK** is director of the address register, at the Australian Bureau of Statistics (ABS). He started his career at the ABS in 2005, working across a range of economic statistical collections. Highlights of his time in economic statistics, include: leading the development of a number of industry collections, including transport, manufacturing, and health industries; and leading the annual economic survey of Australian businesses. During 2011, he spent time working with the National Directorate of Statistics in Timor Leste on the development and publication of their first economic activity survey. Since 2011, he has worked on the development of the 2016 Australian Census of Population and Housing, with responsibility for the development of the ABS address register. He has a bachelor of commerce degree, and is currently studying for a master’s in actuarial science, both at the University of Melbourne.

**JANUSZ DYGASZEWICZ** is director of programming and coordination in the Statistical Surveys Division at the Central Statistical Office of Poland, as well as director of the Central Census Bureau for the 2010 and 2011 censuses in Poland. His experience includes, IT technology, GIS technology, statistics, spatial data and spatial analysis, enterprise architecture, computer sciences, and telecommunication, and he has experience in the field of computerization of public administration. From 2002 to 2006, he was IT adviser for the General Surveyor of Poland and also creator and manager of the GEOPORTAL.GOV.PL project. Currently, he is a member of numerous steering committees and consulting councils, including: government commission for the INSPIRE directive; head of the UNECE task force on census technology; and member of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). He also serves as a lecturer in computer sciences and statistics in geographic information systems at the Warsaw University of Technology, and is currently undertaking postgraduate Ph.D. studies in the Department of Cybernetics at the Military Technical Academy in Poland.

**JOE KRESOVIC** is director of the Census Operations Division at Statistics Canada. Prior to this, he was director of the Geography Division (July 2007-May 2014). As assistant director, Geography Division (May 2002-June 2007), he managed the 2006 address register/geography census project that supported the redesign of the census process for the 2006 census. He was also a member of the 2006 census planning team in the Census Management Office (May 2001-May 2002). As chief of special projects and integration in the Service Industries Division (November 1997-May 2001), he managed the redesign of the business processes for the annual services statistics program. He began his professional career in 1989 as a geographic analyst in the Geography Division of Statistics

Canada. He received a B.E.S. degree in geography from the University of Waterloo, and an MBA from the University of Ottawa.

**SHARTHI LALDAPARSAD** is executive manager in the Department of Policy Research and Analysis at Statistics South Africa (Stat SA), a division she recently started-up. This new division resides in the office of the Statistician-General. The main purpose of the division is to conduct cross-cutting socio-economic analysis, focusing on spatial and temporal analysis—a move away from the data creation side to data usability, in the area of evidence-based policy analysis. Prior to becoming executive manager, she pioneered Stats SA's Geography Division, and served as its head for many years. She has been with Statistics South Africa for almost 24 years. She has three master's degrees: an M.Sc. in mathematical statistics, an MBA, and an M.PHIL. in urban and regional sciences.

**MIRIAM MATTOS DA SILVA BARBUDA** is coordinator of census mapping in the Directorate of Geoscience of the Brazilian Institute of Geography and Statistics (IBGE). She began her career as a cartographic engineer in the private sector, conducting numerous projects on digital cartography for spatial purposes, most of them in cadastral scales. She coordinates the 27 state offices of IBGE responsible for maintaining the updated records and maps used for surveys and censuses. She has participated in national and international conferences, sharing her knowledge and experience in constructing the Brazilian Census Geodatabase for the 2010 Census. She is also a member of the Brazilian cartography society. She has a M.A. degree in geomatics from the University of the State of Rio de Janeiro.

**TIM TRAINOR** is chief of the Geography Division at the U.S. Census Bureau. As a senior executive in the U.S. government, he is responsible for managing the MAF/TIGER system, a national resource of addresses and geospatial information to support censuses and surveys. He is the senior agency official for geospatial information for the U.S. Department of Commerce as an executive member of the U.S. Federal Geographic Data Committee. In addition, he leads the United States delegation to the UN-GGIM Committee of Experts, and from a professional society perspective, he serves as a vice-president to the International Cartographic Association.

#### **TOPIC 4: Self-Response Options (Internet)**

**DIANA BELTADZE** is project leader in the Development Department at Statistics Estonia. Her work revolves around the Population and Housing Census. In 2013, she was awarded the Fourth Class Order of the White Star for organizing and conducting the population census in 2011. Presently, her main focus and challenge is to assimilate register-based census for the 2020 census round in Estonia. She has an M.A. degree in history from Moscow State University.

**IAN COPE** is executive director of the Population and Demography Directorate in the Office for National Statistics (ONS) of the United Kingdom, a position he has held since 2013. In this capacity, he was responsible for the 2011 census (including census results and

census web dissemination), life events statistics, population statistics, and the Beyond 2011 program (investigating future options for census-type data collection), which has recently led to the National Statistician's recommendation for an online 2021 census, plus greater use of administrative data. Since joining ONS in 1989, he has worked in such areas as economic statistics, business surveys, and the census. Beginning in June 2003, he led the early work on the 2011 census, including investigations of alternative sources. From 2007 until 2012, he led the operational (public facing) aspects of the census, including data capture, on-line census, and the large temporary field force. He has also led development work on the ONS website and the European System of Accounts (the EU implementation of new international economic standards).

**YASUKO HORITA** is deputy director of the General Affairs Division of the Statistics Bureau in the Ministry of Internal Affairs and Communications of Japan. When she first joined the Ministry, her primary focus involved tabulating statistical data. Subsequently, her work now involves the calculation of CPI, the estimation of GDP, and numerous other statistics-related activities. Currently, she is responsible for the international statistical activities of the Statistics Bureau.

**IN-HYE KIM** is assistant director in the Population Census Division of Statistics Korea, National Statistical Office of the Republic of Korea. She began her professional career as a conference and workshop coordinator in the International Cooperation Division of Statistics Korea. She has worked with the UN Statistical Commission and the UNESCAP Committee on Statistics, and coordinated a workshop on cultivating statistical capacity to produce accurate statistics for government officers in the Asia Pacific region. She also served as a member of the planning team for the 2015 Population and Housing Census, where she broadened her areas of interest to include research on census topics and new census methods for achieving the accurate and timely data. Recently, she joined a task force charged with researching the feasibility of smartphone use as a new option for census methods. Her areas of interest, include: new census methods to relieve respondents' burden and to improve the accuracy of data, the coordination of the training programs for statistical capacity building especially in census taking areas, and research into census questions that can be multi-used for many purposes. She has an M.A. degree in international studies on Asian regions from Seoul National University.

**PATRICE MATHIEU** is a senior methodologist in the Social Survey Methods Division at Statistics Canada. He joined Statistics Canada in 1999, and since this time he has worked on numerous projects related to social and business surveys. He started working for the Canadian census of population in 2010; his team is responsible for the methodology of the census collection. His 15 years of experience at Statistics Canada, includes experience in survey methodology, sampling, data collection, weighting, and variance estimation for complex cross-sectional and longitudinal surveys. His involvement in international projects, includes the development of the first joint Canada/United States Survey of Health in partnership with the U.S. National Center for Health Statistics, and participation in the 2016 Australian Census International Peer Review, as a panel member representing Canada. He has a bachelor's degree in mathematics, and a master's degree in statistics, both from the University of Montreal.

**JO RUNJAJIC** is assistant director in the 2016 census program at the Australian Bureau of Statistics (ABS). She is currently responsible for the design of a centralized operational command center that oversees the enumeration progress in the next Australian census of population and housing in 2016. The command center will monitor real-time intelligence from the field, and based on predefined strategies may invoke actions to ensure that coverage targets and priorities can be met and resources utilised efficiently. In the previous 2011 census, she served as project manager of the *eCensus*, the online form solution which achieved a 33% take-up of responses. In the 2006 census, she managed the introduction of the disclosure control technique into the dissemination software and supported end users of the data products. She has a keen interest in technology and the role of future innovations in transforming census taking. Prior to joining the ABS 12 years ago, she worked in information management and ICT services within state and federal agencies.

### Capstone Remarks

**IVAN P. FELLEGI** is chief statistician emeritus of Canada, having served as chief statistician from 1985 to 2008. He joined Statistics Canada (then the Dominion Bureau of Statistics) in 1957, serving as director of sampling research and consultation and director general of methodology and systems, assistant chief statistician, and deputy chief statistician before his appointment as chief statistician. He has published extensively in the areas of census and survey methodology, in particular on consistent editing rules and record linkage. A past chair of the Conference of European Statisticians of the United Nations Economic Commission for Europe, he is an honorary member and past president of the International Statistical Institute, an honorary fellow of the Royal Statistical Society, past president of the International Association of Survey Statisticians, and past president and Gold Medal recipient of the Statistical Society of Canada. He was made Member of the Order of Canada in 1992 and promoted to Officer in 1998, and has received the nation's Outstanding Achievement Award; he has also provided advice on statistical matters to his native Hungary following its transition to democracy and, in 2004, was awarded the Order of Merit of the Republic of Hungary. At the National Research Council, he was a member of the Panel on Privacy and Confidentiality as Factors in Survey Response, the Panel on Census Requirements in the Year 2000 and Beyond, the Panel on Decennial Census Methodology, and the Panel on the Design of the 2010 Census Program of Evaluations and Experiments. He has a B.Sc. degree from the University of Budapest, and M.Sc. and Ph.D. degrees in survey methodology from Carleton University.

# Participant List

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## SPEAKERS

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# Floor 1



# Floor 2

