The Scope, Components, and Key Characteristics of a 21st Century Data Infrastructure December 8, 2021 Workshop Presenter Biosketches

Geoff Bowlby is the director general of the Census of Population at Statistics Canada. He is responsible for the 2021 Census, currently underway. The Census of Population is one of the largest operations of government, and is a key pillar of Canada's statistical infrastructure. Bowlby has been an executive at Statistics Canada for almost 15 years and worked in many parts of the organization, including Labour Statistics and the department's regional offices. Prior to becoming an executive, Bowlby spent most of his career as an analyst with the Labour Force Survey. Over a dozen years, he authored or co-authored 35 published papers, most of which have focused on labour market issues. He has represented Statistics Canada frequently at the United Nations and at the International Labour Organization. He has a B.A. in economics from Glendon College, York University and an M.A. in economics from the University of Waterloo.

Antonio Chessa joined Statistics Netherlands in 2006. In the first years, his research activities have been mainly on price and volume measurement of different goods and services in National Accounts and Health Care Accounts. He joined the Department of Consumer Prices in 2013, and has led various research projects on methodological innovation within the context of the Consumer Price Index, with a primary focus on index methods and related methods for processing transaction data. After a two-year post doc period spent at the Department of Public Health of the Erasmus Medical Center, he joined the Department of Public Health of the Erasmus Medical Center, he joined the Department of Public Health of the Erasmus Medical Center, he joined the memory processes behind learning and forgetting. He holds an M.Sc. in mathematics and a Ph.D. in mathematics applied to reservoir geology and engineering, both at Delft University of Technology, the Netherlands.

Ivan DeLoatch serves as the executive director for the Federal Geographic Data Committee (FGDC) Secretariat. The FGDC leads and supports the National Spatial Data Infrastructure Strategy and spatial data policy development in the United States. The FGDC also coordinates with international organizations having an interest in spatial data infrastructures. DeLoatch has over thirty years of experience in environmental and geospatial program policy in many sectors. He has served in many leadership roles on interagency and international committees addressing geospatial and earth observation technical and policy issues in the use of geospatial data and information. He earned a B.A.Sc. in biology/chemistry from Bowie State University in the University of Maryland system.

Cheryl L. Eavey is program director of the Methodology, Measurement, and Statistics (MMS) Program in the Division of Social and Economic Sciences at the National Science Foundation. She has been with NSF since 1993. In addition to MMS, Eavey has been involved in a number of NSF activities, including most recently Harnessing the Data Revolution (HDR), Cyberinfrastructure for Sustained Scientific Innovation (CSSI), and the NSF-Census Research Network. She coordinated the management of the SBE large-scale projects on Decision Making Under Uncertainty and chaired NSF's Art of Science Project from 2001-2010. She has served on the faculty of the Political Science Department at Florida State University, the Business School at Washington University in St. Louis, and the U.S. Business School in Prague (Czech Republic). Eavey earned a B.S. in mathematics and political science from Valparaiso University and an M.A. and a Ph.D. in political science from Michigan State University.

Matt Gee is an entrepreneur, data scientist, and researcher. He's the co-founder and CEO of BrightHive, a public benefit corporation focused on data sharing and collaboration among partnered organizations. At Brighthive Gee has worked to advance new forms of responsible data sharing and reuse, including data collaboratives, data trusts, self-sovereign data, and other types of innovative networks of individuals and organizations managing their combined data. He is a data and society fellow at the University of Chicago's Knowledge Lab. Previously he worked as a senior research fellow at the Center for Data Science and Public Policy at the University of Chicago, co-founding the Data Science for Social Good fellowship program. Gee's work has focused on finding new ways to increase individual efficacy and

equality of opportunity through the creation of new linked data and application of new tools like AI and machine learning to societal problems. He has been principal investigator on initiatives funded by the National Science Foundation, the Sloan Foundation, the Lumina Foundation, the JP Morgan Chase Foundation and others, developing new models for public-private data partnerships with nonprofit organizations, corporations, and governments. These initiatives include the Workforce Data Initiative, the T3 Innovation Network, and the Job Data Exchange. He has previously worked at the U.S. Department of Treasury and has founded several previous companies using data to improve society. He has served as an advisor to Code for America, DataKind, and the World Bank. Gee is a graduate of Brigham Young University and the University of Chicago.

John Haltiwanger, is a distinguished university professor in the Department of Economics at the University of Maryland (UMD). He is also the first recipient of the Dudley and Louisa Dillard Professorship in 2013. Prior to joining UMD he served on the faculty of the University of California, Los Angeles and Johns Hopkins. In the late 1990s, he served as chief economist of the U.S. Census Bureau. He is a research associate of the National Bureau of Economic Research, a senior research fellow at the Center for Economic Studies at the U.S. Census Bureau, and a fellow of the Society of Labor Economics and the Econometric Society. He has played a major role in developing and studying U.S. longitudinal firm-level data. Using these data, he has developed new statistical measures and analyzed the determinants of firm-level job creation, job destruction and economic performance. He has explored the implications of these firm dynamics for aggregate U.S. productivity growth and for the U.S. labor market. He received his Ph.D. from the Johns Hopkins University.

Sarah Henry has recently taken on a new role as director for methodology and quality at the Office of National Statistics (ONS). Henry oversees the statistical methods and techniques that underpin our surveys and statistics. She ensures ONS is accountable for the quality of the statistics produced, using the best available methods. She joined the British Civil Service four years ago after a long stint in local government as Head of Intelligence and Performance for the Mancester City Council where she oversaw research and performance. She also worked on the Greater Manchester Devolution Deal, known as DevoManc. She is passionate about all things data – creation, analysis, visualisation and responsible use – all underpinned by the right methodology.

Andrew Reamer is a research professor at the George Washington Institute of Public Policy at George Washington University (GW). He focuses on federal policies and programs that support U.S. economic competitiveness, with a particular emphasis on the role of the federal statistical system. He is a board member of the Industry Studies Association, staff to the Committee on Economic Statistics of the American Economic Association, the representative of research organizations on the Secretary of Labor's Workforce Information Advisory Council, and a member of the Statistics Committee of the National Association for Business Economics. Before joining GW, Reamer was a fellow in the Brookings Institution's Metropolitan Policy Program; managed Andrew Reamer & Associates, an economic development consulting practice; and co-founded Mt. Auburn Associates, also centered on economic development (1984-1995). He received a Ph.D. in economic development and public policy and a Master of City Planning from the Massachusetts Institute of Technology and a B.S. in economics from the Wharton School, University of Pennsylvania.

Emilda B. Rivers is the director of the National Center for Science and Engineering Statistics (NCSES), a principal statistical agency housed as a division within the National Science Foundation (NSF)'s Social, Behavioral and Economic Directorate. NCSES serves as a clearinghouse for information on the U.S. science and engineering enterprise, often in a global context. Having worked at the U.S. Census Bureau and the Energy Information Administration, she has extensive experience in the ederal statistical system where she often spearheaded efforts to provide previously missing data critical to decision making. In 2017, she was named by Forbes as one of 25 Women Leading Data and Analytics in the U.S.

Government. Rivers is currently serving as chair over the Advisory Committee on Data for Evidence Building (ACDEB). Rivers received a B.S. in mathematics from South Carolina State University and an M.S. from the University of Maryland, College Park.

Matthew D. Shapiro is the Lawrence R. Klein collegiate professor of economics and the director of the Survey Research Center at the University of Michigan. He is a research associate of the National Bureau of Economic Research. Shapiro's general area of expertise is macroeconomics. He has carried out research on investment and capital utilization, business-cycle fluctuations, consumption and saving, financial markets, fiscal policy, monetary policy, time-series econometrics, economics of aging, economic measurement, and survey methodology. Among his current research interests are use of big data in economics; modeling saving, labor supply, retirement, health, insurance, and portfolio choices of older Americans; using surveys and administrative data to address questions in macroeconomics and individual decisionmaking; improving the quality of national economic statistics; and using naturally-occurring data such as account records, retail transactions, and social media to measure and understand economic activity. Shapiro is the chair of the Federal Economic Statistics Advisory Committee (FESAC)--the official advisory committee of the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis. He is a member of the academic advisory council of the Federal Reserve Bank of Chicago. Shapiro has served as chair of the American Economic Association Committee on Economic Statistics and as a member of the National Academies' Committee on National Statistics. During 1993-1994, Shapiro served as senior economist at the Council of Economic Advisers. Previously, Shapiro was an assistant professor of economics at Yale University and a member of the Cowles Foundation for Research in Economics. Shapiro received a B.A. and an M.A. from Yale University and a Ph.D. from the Massachusetts Institute of Technology.

John Stevens is a senior associate director in the Division of Research and Statistics at the Board of Governors of the Federal Reserve System. His responsibilities include communicating the staff's economic projection to policymakers, leading data-related initiatives, participating in strategic planning and oversight activities, and conducting economic research. He has a particular interest in economic measurement, including the use of government administrative data and private-sector data to create new economic indicators. He is a member of the National Bureau of Economic Research Conference on Research on Income and Wealth, the American Economic Association, the National Association for Business Economics (NABE), and the NABE Statistics Committee. He is an associate editor for the *Harvard Data Science Review* and a special sworn status researcher at the U.S. Census Bureau. He also spent a year as a senior economist at the Council of Economic Advisers. Dr. Stevens holds a Ph.D. in economics from the University of Minnesota.

Stephanie Studds is the chief of the Economic Indicators Division at the U.S. Census Bureau. As chief, she oversees the release of over a 100 principal federal economic indicator releases that come out monthly and quarterly as first measures of the health of the United States' economy. Since joining the Census Bureau from private industry, she has been responsible for the creation of the Innovation and Technology Office and accepted the role of the business team lead reporting directly to the associate director for economic programs. In this role, she delivered a large number of systems to support the economic and decennial directorates as well as the enterprise as a result of the "Quick Strike" mentality for out of the box thinking for business process and system development. Additionally, her team was responsible for delivering the iCADE data capture system and logistics for the Kenya Bureau of Statistics and Bangladesh Bureau of Statistics Population Census. The success in Kenya and Bangladesh led to the selection of iCADE for the data capture of the 2020 Census paper forms. In April 2014, she was asked to lead the Integrated Technology Team, which provided a number of large-scale changes in business process to re-engineer the way field operations would be executed for the 2020 Census as well as the MOJO technology to route and optimize enumerators. Stephanie holds a B.S. in business administration and management from Bowie State University.