## CRIW Pre-Conference: Big Data for 21st Century Economic Statistics

Katharine G. Abraham, Ron S. Jarmin, Brian Moyer, and Matthew D. Shapiro, Organizers

July 18, 2018

Skyline Room

Royal Sonesta Hotel 40 Edwin H. Land Blvd. Cambridge, MA

## Wednesday, July 18

| 8:15 am  | Coffee and Pastries   |
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| 8:45 am  | Welcome and Conference Overview   |
| 9:00 am  | Gabriel Ehrlich, University of Michigan John C. Haltiwanger, University of Maryland and NBER Ron S. Jarmin, Bureau of the Census David Johnson, University of Michigan Matthew D. Shapiro, University of Michigan and NBER Re-Engineering Key National Economic Indicators  |
| 9:20 am  | Aditya Aladangady, Federal Reserve Board Shifrah Aron-Dine, Federal Reserve Board Wendy Dunn, Federal Reserve Board Laura Feiveson, Federal Reserve Board Paul Lengermann, Federal Reserve Board Claudia R. Sahm, Federal Reserve Board From Transactions Data to Economic Statistics: Constructing Real-time, High-frequency, Geographic Measures of Consumer Spending                   |
| 9:40 am  | Jeffrey C. Chen, Bureau of Economic Analysis Abe Dunn, Bureau of Economic Analysis Kyle K. Hood, Bureau of Economic Analysis Off to the Races: A Comparison of Machine Learning and Alternative Data for Nowcasting of Economic Indicators  |
| 10:00 am | Rishab Guha, Harvard University Serena Ng, Columbia University and NBER A Machine Learning Analysis of Seasonal and Cyclical Sales in Weekly Scanner Data   |
| 10:20 am | Break   |
| 10:40 am | Rebecca J. Hutchinson, Bureau of the Census  Using Nontraditional Data Sources to Reduce Respondent Burden in United States Census Bureau Economic Data  Products   |
| 11:00 am | Claire Kelling, Pennsylvania State University Gizem Korkmaz, Virginia Polytechnic Institute Carol Robbins, National Science Foundation Sayali Phadke, Pennsylvania State University Stephanie S. Shipp, Virginia Polytechnic Institute The Scope and Impact of Open Source Software as Intangible Capital: A Framework for Measurement with an Application Based on the use of R Packages |
| 11:20 am | Tomaz Cajner, Federal Reserve Board<br>Ryan Decker, Federal Reserve Board   |

Leland D. Crane, Federal Reserve Board Christopher Kurz, Federal Reserve Board

Adrian Hamins-Puertolas, Federal Reserve Board

Improving the Accuracy of Economic Measurement with Multiple Data Sources: The Case of Payroll Employment

Data

11:40 am Marina Gindelsky, Bureau of Economic Analysis

Jeremy Moulton, University of North Carolina, Chapel Hill

Scott A. Wentland, Bureau of Economic Analysis

Valuing Housing Services in the Era of Big Data: A User Cost Approach Leveraging Zillow Microdata

12:00 n Lunch

1:00 pm Edward L. Glaeser, Harvard University and NBER

Hyunjin Kim, Harvard University Michael Luca, Harvard University

Nowcasting the Local Economy: Using Yelp Data to Measure Economic Activity

1:20 pm Andrew L. Baer, Bureau of the Census

Shawn D. Klimek, Bureau of the Census

J. Bradford Jensen, Georgetown University and NBER

Lisa Singh, Georgetown University Joseph Staudt, Bureau of the Census Yifang Wei, Georgetown University

A Comparison of Web Collected Franchise Data and Economic Census Collected Data

1:40 pm John Romley, University of Southern California

Abe Dunn, Bureau of Economic Analysis

Dana Goldman, University of Southern California and NBER Neeraj Sood, University of Southern California and NBER

Quantifying Productivity Growth in Health Care Using Insurance Claims and Administrative Data

2:00 pm Arthur Turrell, Bank of England

Bradley J. Speigner, Bank of England David Copple, Bank of England

Pretty Vacant: Using Online Job Vacancies to Understand Labour Market Mismatch and the Determinants of UK

Growth

2:20 pm John Cuffe, Bureau of the Census

Sudip Bhattacharjee, Bureau of the Census

Generating Industrial Classification Codes from Public Data.

2:40 pm Break

3:00 pm Crystal G. Konny, Bureau of Labor Statistics

Incorporating Alternative Data into the Consumer Price Index (CPI): Case Studies

3:20 pm Don Fast, Bureau of Labor Statistics

Susan Fleck, Bureau of Labor Statistics

Measuring Import And Export Price Movements With Administrative Trade Data

3:40 pm W. Erwin Diewert, University of British Columbia and NBER

Robert C. Feenstra, University of California at Davis and NBER

Estimating the Benefits and Costs of New and Disappearing Products

4:00 pm General Discussion and Plans for Revisions

4:20 pm Adjourn