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BIO

Stephanie Shipp is a research professor in the Department of Statistics at Iowa State University. She is conducting research to support the US Census Bureau's Statistical Product First Initiative to create stakeholder-driven statistical products using a mix of survey, administrative, and opportunity data scraped from the internet. She is leading the development of the Curated Data Enterprise (CDE), which aligns with the Census Bureau's modernization and transformation and their *Statistical Products First* approach. To realize the CDE vision, the development of statistical products will address stakeholder questions using all data types - designed surveys and censuses, public and private administrative data, opportunity data harvested from the internet, and procedural data.

She was deputy director in the Social and Decision Analytics Division at the Biocomplexity Institute, University of Virginia. She co-founded the division in 2013 at Virginia Tech and moved with the Institute to the University of Virginia in 2018. Dr. Shipp's work spans topics related to using all data to advance policy, the science of data science, community analytics, and innovation. She led and engaged in local, state, and federal projects to assess data quality and the ethical use of new and traditional data sources.

As a U.S. Senior Executive Service member, Dr. Shipp led the Economic Assessment Office in the Advanced Technology Program at the National Institute of Standards and Technology. She expanded the economic evaluation capacity of this world-renowned program by inviting and funding academic researchers to work with us to conduct research. Dr. Shipp's experience in science and technology policy expanded through research conducted at the IDA Science and Technology Policy Institute. This non-profit organization conducts policy analysis for the White House Office of Science and Technology Policy. Her research and analysis of the U.S. and global advanced manufacturing trends provided input to expand the White House vision in this area. Since beginning her career at the Federal Reserve Board, she has led economic and statistical programs at the Census Bureau and Bureau of Labor Statistics, advancing federal statistics, and creating new partnerships across the federal government through outreach and collaboration.

Serving on National Academies committees, Dr. Shipp brings her knowledge of social sciences, statistics, policy, and innovation to evaluate and inform government science and engineering programs. She is a member of the American Statistical Association's Committee on Professional Ethics, the Symposium on Data Science and Statistics (SDSS) Committee, and the Professional Issues and Visibility Council. She is a Fellow of the American Statistical Association, the American Association for the Advancement of Science, and an elected member of the International Statistical Institute.

EDUCATION

Ph.D. Economics, George Washington University
Bachelor of Arts, Trinity College, Washington DC and Aix-en-Provence, France

CURRENT ACADEMIC/RESEARCH APPOINTMENTS

2024 -present Research Professor, Department of Statistics, Iowa State University

PRIOR APPOINTMENTS

2022-2024 Acting Director and Professor, Social and Decision Analytics Division. Biocomplexity Institute & Initiative, University of Virginia

2018-2022 Deputy Director and Professor, Social and Decision Analytics Division. Biocomplexity Institute & Initiative, University of Virginia

2013-2018 Deputy Director and Research Professor, Social and Decision Analytics Laboratory Biocomplexity Institute of Virginia Tech

2008-2013 Senior Research Staff Member, IDA Science and Technology Policy Institute (STPI)

2000-2008 - Director, Economic Assessment Office (EAO), Advanced Technology Program (ATP), National Institute of Standards and Technology, Senior Executive Service

2000 - Senior Advisor, Office of the Secretary, Office of Budget (developmental detail), Department of Commerce

1997-2000 Assistant Division Chief, Housing and Household Economic Statistics Division, U.S. Census Bureau

1983-1997 Chief, Branch of Information and Analysis, Bureau of Labor Statistics (BLS), Division of Consumer Expenditure (CE) Surveys

1976-1983 Team Leader for Development, Bureau of Labor Statistics, Division of Industrial Prices and Price Indexes

1974-1976 Federal Reserve Board, Research Assistant, Research Division

AREAS OF INTEREST

- Developing the science of data science
- Enhancing federal statistics through data science
- Bringing the all-data revolution to urban and rural communities
- Integrating ethics into data science

EXPERIENCE (DETAILS)

Research Professor, Department of Statistics, Iowa State University, 2024-present

- Conducting research to support the US Census Bureau's Statistical Product First Initiative to create stakeholder-driven statistical products using a mix of survey, administrative, and opportunity data scraped from the internet.
- Leading the development of the Curated Data Enterprise (CDE), which aligns with the Census Bureau's modernization and transformation and their *Statistical Products First* approach. To realize the CDE vision, the development of statistical products will address stakeholder questions using all data types - designed surveys and censuses, public and private administrative data, opportunity data harvested from the internet, and procedural data.

Acting Director, Social and Decision Analytics Division, Biocomplexity Institute, University of Virginia, 2022-2024 (Deputy Director, 2018-2022)

- Developed and implemented a strategic plan to grow the Social and Decision Analytics Division to advance the development of statistical methodology and tools to understand the social condition quantitatively at scale. Through data analytics, the Social and Decision Analytics

Division uses *all* data and social science methods to transform the way we understand the world, such as how to create efficient, equitable, and resilient cities, counties, and communities, identifying innovation drivers, and meeting the demand for STEM (science, technology, engineers, and mathematics) educated graduates.

- Led the development of the 21st-century Census Curated Data Enterprise (CDE), which aligns with the Census Bureau's modernization and transformation and *Statistical Products First* approach.
- Worked with local governments to liberate and repurpose their data to inform decision-making.
- Conducted research with the National Science Foundation's National Center for Science and Engineering Statistics to identify non-survey sources to measure innovation, intangibles, and STEM pathways using novel methods, e.g., detecting product innovation in news stories using machine learning techniques.
- Conducted research with the US Army Research Institute to address challenges related to attrition and performance, using multiple Army, DOD, and external data sources.
- Led and participated in grant writing and projects, hired and mentored staff, created and reviewed project and division budgets, and more.

Deputy Director, Social and Decision Analytics Laboratory, Biocomplexity Institute of Virginia Tech, 2013-2018

- Developed relationships with collaborators (companies, local, state, and federal governments)
- Hired statisticians and quantitative social science researchers, including creating a vibrant Visiting Scholar and Visiting Student program.
- Applied for grants to expand expertise in the Science of *All* Data and Community Analytics, e.g., worked with the Census Bureau to identify administrative sources of housing and education data and assess their fitness for use to supplement the American Community Survey.
- Wrote and presented about our program methods and outcomes in journals and at conferences.

Senior Research Staff Member, IDA Science and Technology Policy Institute (STPI), 2008-2013.

- Led STPI policy research and analyses for the White House science advisors and other federal agency leadership. Responsible for developing relationships with sponsors and overseeing the execution of emerging engineering, science, and social sciences projects using economic and statistical analysis. Examples of these projects include:
 - A global review of emerging advanced manufacturing capabilities,
 - Examining how innovation policies in emerging countries and current economic and political conditions influence their development.
 - A review of how businesses and other countries define and measure innovation (tangibles and intangibles).
 - Development and implementation of criteria for identifying areas of emerging research for the next decade of federal R&D investment.
 - An assessment of the National Institutes of Health (NIH) peer review system,
 - Examining the effect of policy changes on technology transfer mechanisms at universities and federal labs.
 - A review of entrepreneurship education programs and recommendations for policy.
 - Identification of potential Grand Challenge ideas for a White House event.
 - The development of a social network analysis of two National Science Foundation (NSF) education grant programs
 - An evaluation of the NSF's University Engineering Reform grants to assess if they succeeded in creating multidisciplinary programs focused on solving societal challenges.

Director, Economic Assessment Office (EAO), Advanced Technology Program (ATP), National Institute of Standards and Technology, Senior Executive Service, December 2000-September 2008.

- Led professional staff and contractors to evaluate the selection, project management, and overall success of Advanced Technology Program (ATP) projects. Responsible for multi-million-dollar budget. (ATP was a public-private partnership that funded companies to undertake high-risk research projects that had the potential to produce societal outcomes.)
- As a senior management team member, prepared strategic vision and managed program-wide activities that included developing ATP and project selection operating procedures and criteria for evaluating proposals, allocating program resources, and recruiting and evaluating personnel.
- Directed analysis of ATP outcomes and impacts, including economic analysis on the drivers of innovation, competitiveness, and entrepreneurship. Designed, coordinated, and managed evaluation studies; guided contractors working on technology evaluation topics; ensured analytic and editorial quality and responsiveness to the ATP program's and other stakeholders' needs.
- Developed and applied analytic methodologies for evaluating the ATP projects' benefits and costs and quantifying the impact of ATP projects on society. Guided the generation of statistics and oversaw quick-response analyses and interpretation of statistics.
- Monitored the progress of award recipients through the life cycle of the ATP project. Evaluated technological and business developments to determine whether project and program outcomes address societal challenges.
- Initiated and developed a data enclave at NORC, University of Chicago, to allow researchers remote access to survey data for analyses while preserving the confidentiality of the data.
- Represented ATP and NIST in meetings at the Office of Management and Budget (OMB), Office Science Technology Policy (OSTP), and Congress, particularly on topics related to the effectiveness of ATP in addressing societal challenges. Presented papers at national and international science and technology, economic, and business conferences.

Senior Advisor: Office of the Secretary, Office of Budget (developmental detail), Department of Commerce, July-November 2000.

- Oversaw and directed all activities related to completing the Department of Commerce's Strategic Plan for FY 2000-2005 and provided direction to the agency representatives working on the Strategic Plan to ensure that their goals and outputs were outcome-oriented.
- *Received Bronze Medal for completing Strategic Plan in a timely and cooperative manner.* (Awarded December 2000.)

Assistant Division Chief, Housing and Household Economic Statistics Division, Census Bureau, September 1997-June 2000.

- Responsible for overseeing the management of three branches in the Division: Supervised two Special Assistants and three branch chiefs who directed over 40 employees engaged in economic, demographic, and statistical work.
- Participated with the other Assistant Division Chiefs and the Chief in formulating programs and policies. Spearheaded growth of the division and new organizational approach.
- Directed an intensive analytical program leading to professional publications, interpretative reports, special studies, and extensive personal and written contacts with data users. Wrote reports on welfare reform and related issues.

- Actively participated in three senior leadership Census Bureau teams chartered to recommend and implement new policies and procedures: Business Processing Re-engineering, Publications Team, Statistical Competencies Team, and Quality Profile Team.
- Participated on inter-agency committees at the Office of Management and Budget, Bureau of Labor Statistics, and Internal Revenue Service. Represented the Census Bureau on employment, job training programs, welfare programs, transfer program participation and eligibility, and occupational classification.
- Coordinated conference sessions at professional meetings that highlight the work of staff. Gave invited talks at many of these conferences.

Bureau of Labor Statistics (BLS), Division of Consumer Expenditure (CE) Surveys, Chief, Branch of Information and Analysis, October 1983 to September 1997.

- Directed analytical program leading to professional publications, interpretative reports, special studies, and extensive personal and written contacts with data users on spending patterns in the US and other countries.
- Coordinated and directed the technical planning, testing, and evaluation of new methods to process CE data faster and more reliably. Managed quality control program, including overseeing comparisons with data from other household surveys.
- Led joint BLS-Census survey improvement project to evaluate and improve overall survey operations. The goals were to reduce the respondent burden, streamline the CE Interview survey, and adopt new technology.
- Prepared analyses of CE data for high-level managers at the White House, Congress, and other Federal agencies. Gave invited talks at national and international conferences.
- Represented CE on data quality and survey improvement policy forums:
 - OMB-Census advisory panel; Interagency Forum on Family and Child Statistics
 - Informal Working Group to examine the impact of Temporary Assistance of Needy Families (TANF) legislation on surveys,
 - OMB Steering Group to Improve the Measurement of Income and Poverty.

Bureau of Labor Statistics, Division of Industrial Prices and Price Indexes, Development Team Leader, 1976-1983

- Directed the design and implementation of a new price index estimation system.
- Oversaw the automation of a system to collect prices from producers.
- Initiated and implemented procedures to follow-up non-respondents.
- Initiated research for pricing in the agricultural sector.

Federal Reserve Board, Research Assistant, Research Division, 1974-1976

- Assisted in the revision of the Industrial Production Index.
- Derived weights from the Department of Commerce Value of Shipments data.
- Developed economic models based on historical time series data.
- Prepared history of the 235 products used in the index.
- Wrote industry specific monthly reports.

HONORS

- American Statistical Association (ASA) Founders Award, 2022
- American Association for the Advancement of Science Fellow, Statistics, 2014
- American Statistical Association (ASA) Fellow, 2002
- International Statistical Institute, elected member, 2001

- Bronze Medal, Department of Commerce, 2000
- Jeanne E. Griffith Mentoring Award, 2007
- Pat Doyle ASA Service Award, 2009

PROFESSIONAL MEMBERSHIPS

- American Association for the Advancement of Science
- American Statistical Association
- American Economic Association

SERVICE TO THE PROFESSION

National Academies of Sciences, Engineering, and Medicine (NASEM)

- NASEM Committee on Assessment of SBIR/STTR, NASA (2024-2025)
- NASEM Committee on Assessment of SBIR/STTR, Department of Defense (2023-2025)
- NASEM Committee on Assessment of SBIR/STTR, National Science Foundation (2020-2023)
- NASEM Committee on Assessment of SBIR/STTR, National Institutes of Health (2020-2022)
- NASEM Committee on Assessment of SBIR/STTR, Department of Energy (2018-2020)
- NASEM Committee on Assessment of SBIR/STTR, National Science Foundation (2020-2021)
- NASEM Committee on Assessment of SBIR/STTR, National Institutes of Health (2020-2021)
- NASEM Committee on Evaluation of the Advanced Research Projects Agency-Energy (ARPA-E), (2015-2017)
- NASEM Committee on Assessing the Value of Research in Advancing National Goals, 2013-2014
- NASEM National Patterns of R&D Resources, Future Directions for, Content and Methods, 2013

American Association for the Advancement of Science

- AAAS Electorate Nominating Committee (ENC), Section on Social, Economic & Political Science, 2014-2017
- AAAS Annual Meetings Program Committee, 2016-2020

American Statistical Association (ASA)

- ASA Symposium on Data Science and Statistics (SDSS) Committee, 2023-2026
- ASA Professional Issues and Visibility Council, 2022-2024
- ASA Committee on Professional Ethics, 2021-2026
- ASA Committee on Privacy & Confidentiality, 2016-2021
- ASA Jeanne E. Griffith Mentoring Award Committee, 2008-2013, (Chaired 2009).
- ASA Government Statistics Section, Representative to the Council of Professional Associations on Federal Statistics (COPAFS). 2008-2009.
- ASA, Government Statistics Section, Chair, 2005-2007. Representative to the Council of Sections, 2001-2003.
- ASA Committee on Committees, 2002-2004.
- ASA Social Statistics Section, Program Chair, 1998-99.
- ASA, Committee on Women in Statistics, 1995-99.
- ASA, Chair, Cox Scholarship Committee, 1995-97.

- ASA, Caucus for Women in Statistics, 1987-1994, newsletter editor, president

International Activities

Swedish Research Council, Chair, Humanities, Social Sciences and Educational Sciences Expert Panel for the Midterm Evaluation of the Linnaeus Grants (2012 and 2014).

- 2014: Led four panels of experts to conduct a mid-term evaluation of 20 Linnaeus Centers.
- 2012: Led panel of experts to review and prepare recommendations for five centers that are responsible for the creation of longitudinal datasets and analyses using these datasets on aging, immigration, education, demography, and innovation. Invited to be the lead Chair of four panels (Humanities, Social Sciences and Educational Sciences; Physical Science; Medicine; and Natural Sciences in 2014).

Sweden's VINNOVA International Advisory Board, 2007-2009, 2010, 2014, 2017. Met twice yearly to discuss VINNOVA's S&T policy initiatives (2007-2009).

- Gave presentations at VINNOVA conferences on the role of S&T public-private partnerships (2007-2009). Participated in review committees for university grants (2010, 2012, 2014, 2017).
- US-Chinese bilateral dialogue jointly sponsored by the University of California Institute on Global Conflict & Cooperation (IGCC) and the Chinese Academy of Science & Technology Development (CASTED)
- Assisted with shaping agenda and gave keynote introduction on *The Historical Evolution of STI Policy Decision-making and Key System Characteristics in the United States*, August 1-2, 2013.

Other Activities

- Member of the team to organize the Virginia Science, Engineering, and Medicine (VASEM) Big Data Summit in 2015.
- Reviewer for National Academy of Science, Engineering, and Medicine reports, 2008-present
- Senior Executives Association, Board of Directors, 2005-2010.
- Senior Executives Association, President, Department of Commerce, 2003-2004

CURRENT FUNDING

- U.S., Census Bureau, 2021-present, Census 2030 and Census Curated Data Enterprise, PI, \$1.4M
- U.S. Army Research Institute (ARI), 2020-2023, Developing Predictive Models of U.S. Army Career Pathways through the Integration of Multiple Co-PI
- U.S. Department of Agriculture (USDA), Economic Research, 2021-2022, \$630,000, Impacts of Rural Broadband on Equity, Key Personnel
- Virginia Department of Health, 2021-2023, \$590,000, Building a Sustainable Data Commons to Support Department of Health Strategic Plans, Key Personnel.

COMPLETED FUNDING

- Alfred P. Sloan Foundation, 2023, Census Curated Data Enterprise Use Cases, \$250,000, PI
- Alfred P. Sloan Foundation, 2020-2022, Census 2030, \$124,000, Co-PI
- Alfred P. Sloan Foundation, 2018-2019, Census 2030, \$125,000, Co-PI
- Mastercard Center for Inclusive Growth, Regional Social Impact Data Commons for DC Metro Area, 2021-2023, \$1,000,000, Co-PI.
- U.S. Army Research Institute (ARI), 2017-2022, The Social Component of the Human Dimension: Leveraging Existing DoD Data Towards Optimized Individual and Team Performance in the Army, \$3,027,401, Co-PI

- American Institutes for Research, 2014, Seedling Project with American Institutes for Research (AIR) and VBI-Social and Decision Analytics Laboratory, \$25,000, PI
- American Statistical Association (National Science Foundation (NSF)), 2016, REU Site: Diverse Undergraduate Research Experiences in Statistics, \$38,666, Co-PI
- Arlington County and Federal Emergency Management Agency (FEMA), 2015-2016, Nonprofit Recovery Resource Providers, \$100,000, PI
- Arlington County, Virginia, 2017-2018, Identifying Current Status, Performance Metrics, and Options for Improving Customer Services Through Arlington County Call Centers, \$40,000, Co-PI
- Bill & Melinda Gates Foundation, Towards a National Community Learning Network, 2019-2020, \$1,000,000, Co-PI
- Fairfax County, Women and Girls Study, 2023-2024, \$75,000, PI
- Fairfax County Office of Emergency Management (OEM), 2017, Collaborative Research with OEM, \$15,000, Co-PI
- Fairfax County, Virginia, 2017, Developing a Data-driven Approach to Inform the Decline in Youth Physical Activity in Fairfax County, \$50,000, Co-PI
- Fairfax County, Virginia, 2019-2020, Maximizing the Use of Existing Data for Policy and Planning by Creating Indices for Predictive and Prescriptive, \$125,000, Principal Investigator
- Laura and John Arnold Foundation, 2016, \$144,000, Co-PI
- MITRE Corporation (Centers for Medicare and Medicaid Services), 2015, Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs (VA Choice), \$99,997, Co-PI
- MITRE Corporation (U.S. Census Bureau), 2015-2016, A Pilot Study to Establish Data Use and Quality Standards for Using New Sources of Structured and Unstructured Data, \$578,499, Co-PI
- NSF National Center for Science and Engineering Statistics, 2020-2022, Bringing Data Science to a Survey Organization. \$1,662,936, Co-PI
- National Network of Public Health Institutes (NNPHI), (Robert Wood Johnson Foundation (RWJF)), Creating a Culture of Health - Obtaining a Diverse and Broad Perspective on Role of Health Information Technology (HIT), 2014-2015, \$175,000, Co-PI
- Procter & Gamble, 2014-2016, P&G End-to-End (E2E) Digitization and Supply Chain Modeling, \$525,000, Co-PI
- Procter & Gamble, 2014, Brazil Problem, \$75,000, Co-PI
- State Council of Higher Education for Virginia (SCHEV), 2017-2018, Creating a Data Profile of Counties/Cities with High Percent of Population with No Secondary Education, \$15,000, Co-PI
- U.S. Army Research Institute (ARI), 2019-2020, Towards an Integrated Data Framework for Understanding the Context of Military Environments (extension), \$286,826, Co-PI
- U.S. Department of Agriculture (USDA) (National Science Foundation (NSF)), 2016-2020, \$2,250,000, Use Statistical and Survey Methodology Research to Improve or Redesign Surveys, Co-PI
- U.S. Department of Agriculture (USDA), Applied and Foundational Research Initiative (AFRI), Food and Agriculture Cyberinformatics and Tools (FACT), 2019-2021, \$1,000,000, FACT: Three-State Data Science for the Public Good Coordinated Innovation Network, Co-PI
- U.S. Department of Agriculture (USDA), Economic Research, 2018-2019, \$400,000, Impacts of Infrastructure Development on Rural Property Values, Co-PI
- University of Pennsylvania (Laura and John Arnold Foundation), 2016-2017, Actionable Intelligence for Social Progress (AISP) Innovation, \$22,000, Co-PI

RECENT PRESENTATIONS

- “The Status of Women and Girls in Fairfax County, VA” Celebration of Women’s History Month, March 22, 2024.
- “A 21st Century Census Curated Data Enterprise – A Paradigm Shift for Federal Statistics, Developing an End-to-End Curation System,” American Demography Conference, February 7, 2024
- “The Critical Role of Use Cases in Creating 21st Census *Curated Data Enterprise (CDE)* Infrastructure and Capabilities,” Federal Committee on Statistical Policy, October 25, 2023
- “Ethical Principles for the Data Science Revolution: Repurposing Administrative and Opportunity Data for Social Science Research,” World Statistics Congress, July 18, 2023
- “Transformational Innovations for Creating Official Statistics,” Discussant and Session, Co-organizer, World Statistics Congress, July 18, 2023
- American Community Survey Users Conference, Stakeholder Listening Session- 21st Census *Curated Data Enterprise*, May 18, 2023
- “How the American Statistical Association’s Ethical Guidelines Support Career, Professional, and Leadership Development,” ASA Conference on Statistical Practice, February 3, 2023
- “A 21st Century Census Curated Data Enterprise: Building the CDE Use Case by Use Case,” Federal Committee on Statistical Practice Annual Conference, October 27, 2022
- “Ethical Principles for the All Data Revolution,” 16th Annual Virginia IRB Consortium Conference, October 28, 2022
- “Data Acumen in Action,” The Foundations of Biomedical Data Science, University of Virginia, April 15, 2022 (with Sallie Keller)

PUBLICATIONS

1. Lancaster, V., Montalvo, C., Salvo, J., & Shipp, S. (2024). Creating a Household Living Budget Using Publicly Available Data: A 21st Century Census Curated Data Enterprise Use Case. *CHANCE*, 37(1), 22-32.
2. Schroeder J, Wu E, Linehan K, Lanman K, Lancaster V, Shipp S. (2024). The Status of Women and Girls in Fairfax County, Virginia. Proceedings of the Biocomplexity Institute, University of Virginia, <https://doi.org/10.18130/pmp8-dj12>
3. Shipp S, LaLonde D, Martinez W (2023), Making Ethical Decisions Is Hard! Chance Magazine, November, Vol. 36, No. 4. <https://www.tandfonline.com/eprint/D5KR3XFRUG2QV4FVCKQI/full?target=10.1080/09332480.2023.2290955>
4. Lancaster V, Shipp S, Keller S, Schroeder A, Mortveit H, Swarup S, Xie D, (2023), Census Curated Data Enterprise Use Case Demonstration: Climate Resiliency of Skilled Nursing Facilities. Proceedings of the Biocomplexity Institute, Technical Report. TR# 2023-53. University of Virginia. <https://doi.org/10.18130/ce97-sp05>
5. Lancaster V, Montalvo C, Salvo J, Shipp S, (2023) The Importance of Household Living Budget in the Context of Measuring Economic Vulnerability: A Census Curated Data Enterprise Use Case Demonstration Proceedings of the Biocomplexity Institute, Technical Report. TR# BI-2023-258. University of Virginia; 2023 October. DOI: <https://doi.org/10.18130/p43z-c742>
6. Montalvo C, Lancaster V, Salvo J, Shipp S, (2023) The Importance of Household Living Budget in the Context of Food Insecurity: A Census Curated Data Enterprise Use Case Demonstration (2023) Proceedings of the Biocomplexity Institute, Technical Report. TR BI-2023-261. University of Virginia. <https://doi.org/10.18130/2kgx-tv50>
7. Salvo J, Lancaster V, Shipp S. (2023) The Net Undercount of Children Under 5 Years of Age in the Decennial Census: An Art of the Possible Use Case. Proceedings of the Biocomplexity Institute,

- Technical Report. TR# BI-2023-000. University of Virginia; 2023 October. DOI: <https://doi.org/10.18130/nzyj-m621>
8. Wu E, Salvo J, Lancaster V, Stephanie S. (2023). Housing Affordability – An Art of the Possible Use Case to Develop the 21st Century Census Curated Data Enterprise, Technical Report BI-2023-262. Proceedings of the Biocomplexity Institute, University of Virginia; 2023 October. DOI: <https://doi.org/10.18130/qgkd-va29>
 9. Keller S, Prewitt K, Thompson J, Jost S, Barrett C, Nusser S, Salvo J, Shipp S. A 21st Century Census Curated Data Enterprise. A Bold New Approach to Create Official Statistics, Technical Report BI-2022-1115. Proceedings of the Biocomplexity Institute, University of Virginia; 2022. DOI: <https://doi.org/10.18130/r174-yk24>
 10. Pristavec T, Shipp S, Keller S. Using Administrative Records in Official Statistics and Social Science Research, Technical Report BI 2022-025. Proceedings of the Biocomplexity Institute, University of Virginia; 2022. <https://doi.org/10.18130/b7b9-x755>
 11. Salvo J, Shipp S, Zhang S. Building a Case Study of Domestic Migration and the Curated Data TR# 2022-027 - Essential Elements, Technical Report BI 2022-027. [Print]. Proceedings of the Biocomplexity Institute, University of Virginia; 2022 April. <https://doi.org/10.18130/bcwa-gt69>
 12. Salvo J, Shipp S, Zhang S. Defining the Role of Gig Employment in the Post-Pandemic World of Work, Technical Report BI 2022-026. Proceedings of the Biocomplexity Institute, University of Virginia; 2022. <https://doi.org/10.18130/wkx0-4y46>
 13. Shipp S, Salvo J, Zhang S. Understanding the State of Nursing Homes and Residential Care Facilities - A Use Case to Support the Development of the Curated Data Enterprise. Technical Report 2022-028. Proceedings of the Biocomplexity Institute, University of Virginia; 2022. <https://doi.org/10.18130/5d6x-f676>
 14. Keller S, Shipp S. A New Approach for the 2030 Decennial Census - A 21st Century Census for a 21st Century Society, Technical Report TR 2022-022. Proceedings of the Biocomplexity Institute, University of Virginia; 2021 February. <https://doi.org/10.18130/3was-x496>
 15. Keller S, Shipp S. Redistricting Congressional and State Legislative Districts - A Proposal for an Essential-Data Count of the Resident Population for the Decennial Census and 21st Century Census Information Platform. Technical Report TR 2022-023. Proceedings of the Biocomplexity Institute, University of Virginia. 2021. <https://doi.org/10.18130/qyme-ty93>
 16. Keller S, Shipp S. Distribution of Census-Guided Federal Funds - Establishing the Feasibility of an Essential-Data Decennial Census and 21st Century Census Information Platform, Technical Report BI-2022-024. Proceedings of the Biocomplexity Institute, University of Virginia; 2022. <https://doi.org/10.18130/xavc-v021>
 17. Oban, A., Feldman, M. Shipp, S. 2022. Video: SBIR and STTR, What Works and What Can Be Improved. Bipartisan Policy Center. <https://bipartisanpolicy.org/explainer/the-small-business-innovation-research-primer/> or here on YouTube >>> <https://www.youtube.com/watch?v=mBiEFk5p5po>
 18. Keller, S., Shipp, S. (2021). Data Acumen in Action. Notices of the American Mathematical Society, Volume 68, Number 9. <https://www.ams.org/journals/notices/202109/rnoti-p1468.pdf?adat=October%202021&trk=2353&cat=feature&galt=feature>
 19. Keller, S, Shipp, S., Schroeder, A., Korkmaz, G. (2020). Doing Data Science: A Framework and Case Study. Harvard Data Science Review. <https://hdsr.mitpress.mit.edu/pub/hnptx6lq>
 20. Keller, S, Korkmaz, G, Robbins, C., Shipp, S. (2018). Opportunities to observe and measure intangible inputs to innovation: Definitions, operationalization, and examples, PNAS - Proceedings of the National Academy of Sciences, <https://www.pnas.org/content/115/50/12638.short?rss=1>
 21. Keller, S., Nusser, S., Shipp, S., Woteki, C., Helping Communities Use Data to Make Better Decisions. Issues in Science and Technology, National Academies of Sciences, Engineering, and Medicine (2018), <http://issues.org/> or (<http://www.issues.org/34-3/helping-communities-use-data-to-make-better-decisions/>).

22. Pires, B., Crandell, I., Arnsbarger, M., Lancaster, V. Keller, S., Schroeder, A., Shipp, S. Kang, W., and Robinson, P., 2018, Predicting Postsecondary Trajectories in Virginia High Schools using Publicly Available Data, *Statistical Journal of the IAOS*, Volume 34, <https://content.iospress.com/articles/statistical-journal-of-the-iaos/sji180455>
23. Keller S, Shipp S, Korkmaz G, et al. Harnessing the power of data to support community-based research. *WIREs Comput Stat.* 2018;e1426. <https://doi.org/10.1002/wics.1426>
24. Keller, S. and Shipp, S. 2018 “Building Resilient Cities: Harnessing the Power Of Urban Analytics.” In J. Bohland, J. Harrald, D. Bronsnan (Eds) *The Resilience Challenge: Looking at Resilience through Multiple Lens*, Charles C Thomas Ltd Publishers.
25. Keller, S.A., Lancaster, V., Shipp, S. (2017). Building Capacity for Data Driven Governance - Creating a New Foundation for Democracy, Statistics and Public Policy Taylor & Francis Publishers. <http://amstat.tandfonline.com/doi/full/10.1080/2330443X.2017.1374897#.WbcHY9OGOqA>
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