

# JOSEPH BARRINGTON KELLER

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## SUMMARY

Interdisciplinary academic scientist turned science and technology policy researcher experienced in working on across sectors: nonprofits, academia, industry, and US government.

## RELEVANT EXPERIENCE

### THE BROOKINGS INSTITUTION

*Visiting Fellow – Foreign Policy / Artificial Intelligence / Strategic Governance*

Washington, DC

August 2022 – Present

- Researching effective strategies for global AI coordination between democracies; developing policy recommendations for international governance bodies to improve AI policies influencing the global south, improving societal outcomes; seeking complementary opportunities for global AI and climate change diplomacy
- Affiliated with the Strobe Talbott Center for Security, Strategy, and Technology and Artificial Intelligence and Emerging Technology Initiative

### AMERICAN PSYCHOLOGICAL ASSOCIATION (APA)

Washington, DC

*Senior Director, Congressional & Federal Relations*

June 2021 – June 2022

*Senior Science Policy Officer – Scientific Affairs Advocacy / Government Relations*

April 2020 – May 2021

- Engaged with Congressional staff, members, and committees: organized Congressional briefings with subject matter experts; crafted testimony for Senate/House Committee hearings; produced in-house facts sheets outlining scientific research to educate Congress and inform legislative efforts
- Collaborated with federal agencies and the executive branch: spearheaded responses to Requests for Information on science and technology priorities from federal agencies and White House Office of Science and Technology Policy (i.e., responsible AI R&D, autonomous vehicles, strategic planning)
- Advocated externally for Association membership (133k+) and scientific community; monitored a federal issue/agency portfolio including NSF and the Department of Transportation, the future of work and artificial intelligence (AI); planned science advocacy events with Congressional staff leading to passage of House bill supporting post/doctoral research funding during pandemic

### NATIONAL SCIENCE FOUNDATION (NSF)

Alexandria, VA

*AAAS Science & Technology Policy Fellow - Computer & Information Science & Engineering (CISE)* September 2018 – April 2020

- Facilitated the administration of 4 research NSF competitions, including: fairness in AI research jointly supported by NSF and Amazon, multi-lateral/international computational neuroscience funding (Israel, Japan, France, Germany, Spain), and the inaugural NSF-led National AI Research Institutes program with DHS, USDA, VA, and DOT for sustained theme-based investments in AI (\$20M/5 years); assisted in cultivating inter/intra-agency partners, writing the solicitation, and presenting of webinars
- Prepared a funding portfolio analysis of NSF brain-related fundamental research sparked by the White House BRAIN Initiative
- Created a novel 3-year pilot Broadening Participation in Computing program, serving on a 12-member Directorate-level working group, to enhance the inclusivity of CISE awards (\$981M FY19 enacted budget) in STEM and advanced computing fields

### ISAACSON, MILLER

Boston, MA

*Executive Search Consultant - Higher Education / STEM / Healthcare*

September 2016 – August 2018

- Consulted for US organizations that advance the public good; generated search strategies, composed job descriptions, honed institutional messaging, built candidate pools, recruited and interviewed candidates, summarized in-depth candidate referencing, presented to committees and Boards
- Conducted leadership searches for executive roles: university president/chancellor (3), engineering dean, state court administrator, university vice president for research (2), medical certification board president, science foundation president, land trust president, biomedical research institute director (3), medical faculty chair
- Liaised with clients including HBCUs, foundations, public/private research universities and state government; co-led the firm's first targeted internal recruitment of doctoral-level consultants, doubling the number in non-Partner roles

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Cambridge, MA

*Hacker - MIT Policy Hackathon / Future of Work*

April 2019

- Introduced policy recommendations to mitigate the potential impact of machine learning/automation on industries and workers

- Performed analyses on occupation data from the Bureau of Labor Statistics regarding potential susceptibility to automation
- Devised a policy proposal and delivered pitch to a panel of judges from academia, government, and industry with 5 teammates

**Keynote Speaker - 39<sup>th</sup> Annual Dr. Martin Luther King Jr. Celebration** February 2013

- Delivered an invited speech on behalf of the entire MIT graduate student community (6,500 students) as one of 3 keynotes
- Addressed the topic of “Illuminating the Elements of Meritocracy,” regarding meritocracy at MIT and the legacy of Dr. King

**Teaching Assistant - Introduction to Psychological Science** March 2011 – May 2016

- Lectured 6 years of undergraduate discussion classes of 18 students each (2 classes/week for 1 hour) and graded exams/papers
- Developed a free online curriculum for MIT Open Courseware (10M+ visitors//year) on a 6-person team
- Awarded for excellence in undergraduate teaching; 80+ hours of independent classroom teaching experience

## ACADEMIC RESEARCH

**Doctoral Researcher / Postdoctoral Associate - McGovern Institute for Brain Research at MIT** August 2009 – May 2016

- Investigated the neural underpinnings of individual differences in human aging, memory, mind wandering and mindfulness; identified and replicated a novel characteristic of intrinsic brain connectivity associated with cognitive performance
- Implemented non-invasive brain imaging techniques (fMRI); collaborated clinical researchers at Massachusetts General Hospital
- Trained and managed a 5-person research team; experimental design, data collection with human subjects, and data analysis stages

**Research Assistant** June 2003 – July 2009

- Researched human navigational memory at *Boston University* in a laboratory of cognitive neuroimaging; published findings
- Explored virtual reality as acute pain management in children at *UMBC* in a laboratory for pediatric psychology
- Engineered brain imaging studies of reading comprehension in children with ADHD at *Johns Hopkins School of Medicine*

## AWARDS and HONORS

Technology Policy Fellow, Open Philanthropy	2022
Science & Technology Policy Fellow, American Association for the Advancement of Science (AAAS)	2018
Fellow, The Partnership Inc. (Boston, MA)	2018
MARC U*STAR Scholar, NIGMS – National Institutes of Health	2005
Meyerhoff Scholar, UMBC	2003
Eagle Scout, Boy Scouts of America – Baltimore Area Council	2003

## SELECT PUBLICATIONS

**Keller, J.B.** (2020). Review of *Predict and Surveil: Data, Discretion, and the Future of Policing*, by S. Brayne. *Science*, 6509. 1297.

Muindi, F., **Keller, J.B.** (2015). Emerging network of resources for exploring paths beyond academia. *Nature Biotechnology*, 33. 775-778.

**Keller, J.B.**, Hedden, T., Thompson, T.W., Anteraper, S.A., Gabrieli, J.D.E., Whitfield-Gabrieli, S. (2015). Resting-state anticorrelations between medial and lateral prefrontal cortex: Association with executive function, aging, and individual differences. *Cortex*, 64. 271-280.

Muindi, F., **Keller, J.** (2015). Developing world: Build neuroscience capacity in Africa. *Nature*, 518. 35.

## EDUCATION

<b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>	Cambridge, MA
<b>Doctor of Philosophy - Cognitive Science</b>	2016
<i>Thesis: Wandering minds, restless brains, and mindful thoughts: A network-based perspective</i>	
Advised by John D.E. Gabrieli	
<b>BOSTON UNIVERSITY</b>	Boston, MA
<b>Master of Arts - Cognitive and Neural Systems (computational neuroscience)</b>	2009
<b>UNIVERSITY OF MARYLAND, BALTIMORE COUNTY (UMBC)</b>	Baltimore, MD
<b>Bachelor of Science - Biological Sciences</b>	2007

## ADDITIONAL INFORMATION

**Service:** NSF Review Panelist (SBE/GRFP); Government Relations Co-Lead (COVID-19 National Scientist Volunteer Database Team); Board of Trustees Member (STEM Advocacy Institute); **Ad Hoc Journal Reviewer:** *NeuroImage*; **Language:** Conversational French; Basic Spanish