Senate Commerce Committee Nominee Questionnaire, 117th Congress

Arati Prabhakar

Instructions for the nominees: The Senate Committee on Commerce, Science, and Transportation asks you to provide typed answers to each of the following questions. It is requested that the nominee type the question in full before each response. Do not leave any questions blank. Type "None" or "Not Applicable" if a question does not apply to the nominee. Return printed answers to Committee. Begin each section (i.e., "A", "B", etc.) on a new sheet of paper.

A. BIOGRAPHICAL INFORMATION AND QUALIFICATIONS

1. Name (Include any former names or nicknames used):

Arati Prabhakar

2. Position to which nominated:

Director, Office of Science and Technology Policy (OSTP)

3. Date of Nomination:

June 22, 2022

4. Address (List current place of residence and office addresses):

Residence:

Office: 555 Bryant Street #878 Palo Alto, California 94301 5. Date and Place of Birth:

February 2, 1959 New Delhi, India

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Spouse:

Patrick Henry Windham Contract lecturer, Public Policy Program, Stanford University Member, Technology Policy International, LLC (a small consulting firm)

Children: Katherine Madan Windham, age 25 Julia Madan Windham, age 23

7. List all college and graduate degrees. Provide year and school attended.

Ph.D. in Applied Physics, California Institute of Technology, 1984M.S. in Electrical Engineering, California Institute of Technology, 1980B.S. in Electrical Engineering, Texas Tech University, 1979

I have listed honorary degrees in my response to question 16.

- 8. List all post-undergraduate employment and highlight all management-level jobs held and any non-managerial jobs that relate to the position for which you are nominated.
- 2019-present Actuate Innovation, Inc. Founder and CEO
 2018-19 Consultant
 2017-18 Center for Advanced Study in the Behavioral Sciences, Stanford University Fellow

2012-17	Defense Advanced Research Projects Agency Director
2012	SRI International Member of the board of directors
2011-12	AutoGrid Systems Advisor
2001-2011	U.S. Venture Partners Venture Partner Partner General Partner
2000	Consultant
1998-2000	Interval Research Corporation Vice President President
1998	Consultant
1997-98	Raychem Corporation Senior Vice President and Chief Technology Officer
1993-97	National Institute of Standards and Technology Director
1986-93	Defense Advanced Research Projects Agency Program Manager in the Defense Sciences Office Deputy Director of the Defense Sciences Office Founding Director of the Microelectronics Technology Office
1984-86	U.S. Congress Office of Technology Assessment Congressional Fellow and Analyst
1980-84	California Institute of Technology Teaching Assistant
1979 and 1980	Bell Laboratories Graduate Research Program for Women Summer Student

9. Attach a copy of your resume.

Please see Attachment.

- 10.List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above, within the last ten years.
- 2010-12 Chair, Efficiency and Renewables Advisory Committee for the U.S. Department of Energy
- 11.List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution within the last ten years.

2018-present	Pew Research Center Governing Board
2019	Consultant and advisor to the Advanced Education Research and Development Fund
2019	Consultant to the American Medical Association
2018-20	Member of Technical Advisory Council, Ford Motor Company
2012	Member of the board of directors, SRI International
2011-12	Advisor to AutoGrid Systems

12.Please list each membership you have had during the past ten years or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religiously affiliated organization, private club, or other membership organization. (For this question, you do not have to list your religious affiliation or membership in a religious house of worship or institution.). Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or disability.

2005-12 and 2017-present	Board on Science, Technology, and Economic Policy (STEP) of the National Academies of Science, Engineering, and Medicine
2021-present	Board on Energy and Environmental Systems (BEES) of the National Academies of Science, Engineering, and Medicine
2021-present	Advisor to California 100 (a nonprofit organization)
2020-21	Societal Experts Action Network of the National Academies of Science, Engineering, and Medicine
2009-12	Science and Technology Policy Fellows Advisory Council, California Council on Science and Technology
2009-12	Red Team, Defense Sciences Research Council for DARPA
2004-05 and 2011-12	UC Berkeley Electrical Engineering and Computer Science Industrial Advisory Board
2011-12	UC Berkeley College of Engineering Advisory Board
2016-present	National Academy of Engineering Member
Circa 1976- present	Institute of Electrical and Electronics Engineers (IEEE). I joined as a Student Member around 1976 but am unable to determine the precise date. I later became a regular Member, and I have been a Fellow since 1997.

To the best of my knowledge, none of these organizations restricts membership on the basis of sex, race, color, religion, national origin, age, or disability.

13.Have you ever been a candidate for and/or held a public office (elected, nonelected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt.

No.

14.List all memberships and offices held with and services rendered to, whether compensated or not, any political party or election committee within the past ten years. If you have held a paid position or served in a formal or official advisory position (whether compensated or not) in a political campaign within the past ten years, identify the particulars of the campaign, including the candidate, year of the campaign, and your title and responsibilities.

I am a member of the Democratic Party.

- 15. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of \$500 or more for the past ten years.
- 2020 Montanans for Bullock, \$500
- 2020 Bollier for Kansas, \$500
- 2020 Sri for Congress, \$500
- 2020 Peters for Michigan, \$500
- 2020 Scholten for Congress, \$500
- 2020 Theresa Greenfield for Iowa, \$500
- 2020Jon Ossoff for Senate, \$500
- 2020 Jaime Harrison for US Senate, \$500
- 2020 Wendy Davis for Congress, \$500
- 2020 Kathleen Williams for Montana, \$500
- Biden for President, \$2,800
- 2020 Doug Jones for Senate Committee, \$500
- Hillary for America, \$2,700
- 16.List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

I have done my best to identify all items in this category. Nonetheless, there may be other awards or recognitions that I have been unable to find or remember. I have identified the following:

2018	William D. Carey Lectureship Award for Leadership in Science Policy, American Association for the Advancement of Science
2017	Center for Advanced Study in the Behavioral Sciences Fellow
2017	Texas Tech Alumni Association Distinguished Alumna
2017	Department of Defense Medal for Distinguished Public Service
2016	National Academy of Engineering Member
2016	Honorary doctorate and Thayer School Robert Fletcher Award, Dartmouth College
1997	Institute of Electrical and Electronics Engineers (IEEE) Fellow
1995	Honorary doctorate, Rensselaer Polytechnic Institute
1995	California Institute of Technology Distinguished Alumna
1994	Texas Tech Distinguished Engineer
1992	Executive Branch Leadership Award, Semiconductor Industry Association
1979-84	Bell Laboratories Graduate Research Program for Women Fellowship
Circa 1978	Member of Tau Beta Pi, the engineering honorary society
Circa 1978	Member of Eta Kapp Nu, the electrical engineering honorary society
1976-79	I received at least one scholarship to cover a portion of my undergraduate education but am unable to determine any details.

17.Please list each book, article, column, Internet blog posting, or other publication you have authored, individually or with others. Include a link to each

publication when possible. Also list any speeches that you have given on topics relevant to the position for which you have been nominated. Do not attach copies of these publications unless otherwise instructed.

I have done my best to identify articles, interviews, blogs, presentations, publications, or other published material, including by conducting a thorough review of my personal files and online searches. Despite my searches, there may be other materials that I have been unable to identify, find, or remember. In particular, I delivered many speeches during my government service at NIST and DARPA but do not have access to recordings or transcripts of most of those speeches. I am not aware of any public recordings or transcripts of speeches not listed below. Additionally, in my capacity leading those agencies, my name was listed as the author on various reports and documents issued by those agencies. I have listed the ones that I recall or was able to find, but there may be additional reports and documents issued by the agencies where I was listed as an author that I was not able to find or access.

Articles and blog posts:

"<u>DARPA pioneered the internet — its model can change how our future unfolds</u>," The Hill, June 4, 2021.

"<u>How government innovation could help America's workers</u>," with Maria Flynn, Fortune Magazine, May 21, 2021.

"Changing Possible," Medium, October 12, 2020.

"<u>The Next Administration Must Get Science and Technology Policy Right</u>," with John P. Holdren, Susan Eisenhower, Wanda Austin, Ryan Costello, Margaret Hamburg, Eric Lander, Kathy Sullivan, Deborah Wince-Smith, Scientific American, September 22, 2020.

"<u>A Better Tomorrow: Renewing R&D's Promise to America</u>," Medium, May 12, 2019.

"<u>BRAIN Initiative Challenges Researchers to Unlock Mysteries of Human Mind</u>," with Francis Collins, White House Blog, April 2, 2013.

Interviews, podcasts, and speeches:

"To Achieve Climate Scale in Time, We Need a New Type of Innovation," Caltech Energy 10 Conference, June 15, 2022.

<u>Secretary's Speaker Series: Innovation Installment with Dr. Arati Prabhakar</u>, U.S. Department of Transportation, March 9, 2022.

"Inside the Biden Administration's plan to change science," Panel with Tara Schwetz, Lev Facher, STAT Summit 2021, November 17, 2021.

Arati Prabhakar & Bruce Mehlman Interview, June 23, 2021.

"<u>Fireside Chat: Mission-Possible</u>," with Wade Shen, Interview with Terry Young, Sparks & Honey, June 9, 2021.

Former DARPA and NIST director Arati Prabhakar on finding innovative solutions for the future, Pathfinders of Innovation series, Center for Strategic and International Studies (CSIS), April 21, 2021.

"<u>Philanthropy's Role in Addressing Climate Change</u>," Columbia Energy Exchange Podcast, Columbia University Center on Global Energy Policy, March 30, 2021.

"<u>In the Realm of the Barely Feasible with Arati Prabhakar</u>," Idea Machines, January 25, 2021.

"<u>Can Innovation Really Solve Society's Problems?</u>," Zocalo Public Square, December 8, 2020.

Interview: Arati Prabhakar, American Institute of Physics, August 11, 2020.

"<u>R&D for a Better World</u>," Ideas Matter Podcast, the Berggruen Institute, July 30, 2020.

<u>Tech Innovation Needs Social Science - Arati Prabhakar</u>, Human Centered Podcast, Center for Advanced Study in the Behavioral Sciences (CASBS), October 10, 2019.

"Changing What's Possible: The Power of Breakthrough Technologies," CAES Director's Colloquium at the Idaho National Laboratory, September 16, 2019.

Arati Prabhakar on why she pursued engineering, NIST, March 7, 2019.

"<u>A conversation with Arati Prabhakar, former DARPA director, on how to</u> <u>improve our R&D ecosystem</u>," Interview with Cyclotron Road, August 3, 2018.

"<u>A Better Tomorrow: Renewing R&D's Promise to America</u>," William D. Carey Lecture, AAAS Forum on Science & Technology Policy, July 27, 2018.

Center for Law and Biosciences event with Arati Prabhakar, Stanford University, February 22, 2018.

"<u>AI, Automation, and Society</u>," CASBS Symposium with John Markoff, Arati Prabhakar and Tenzin Priyadarshi, November 14, 2017.

StarTalk with Neil deGrasse Tyson, November 6, 2017.

Aspen Ideas Festival, June 22-July 1, 2017.

"Future Technologies: Policy Implications for our Security, Economy and Society," Congressional briefing hosted by the Aspen Institute, May 18, 2017.

Interview with Dr. Arati Prabhakar, Penn Political Review, January 29, 2017.

"An Overview of the DARPA Research Portfolio," December 12, 2016.

DARPA Director Speaks on Leading Innovative Organizations, CSIS, December 8, 2016.

"<u>Postcards from the Future</u>," University of Washington CSE Distinguished Lecture, October 18, 2016.

Fireside Chat: Arati Prabhakar, DARPA, GeekWire Summit 2016, October 5, 2016.

<u>DEF CON 24 – Mike Walker, Arati Prabhakar – DARPA Cyber Grand Challenge</u> <u>Award Ceremony</u>, August 5, 2016.

<u>Thayer School of Engineering Investiture Ceremony</u>, Dartmouth College, June 11, 2016.

<u>Technology & Innovation Panel</u>, with Gary King and Jeremy Gilbert, the Washington Post Transformers Summit, Part 1, May 18, 2016.

Net Politics Podcast: Arati Prabhakar and John Launchbury, May 16, 2016.

"<u>Pentagon's Research Arm Seeks Wider Relationship With University Scientists</u>," Interview with the Chronicle, May 13, 2016.

Strategic Foresight: How a Changing World Affects America, with Jennifer Sciubba, Amy Zalman, Jon M. Huntsman, Jr., the Atlantic Council, May 2, 2016.

"DARPA Director: Today's Risky Bets Will Be Tomorrow's Technology Breakthroughs," Interview with FedTech Magazine, April 22, 2016.

"Technologies to Bend the Arc of the Future:" A Luncheon Lecture with Dr. Arati Prabhakar, DARPA Director, Tufts University, March 31, 2016.

"<u>Faster Than Thought: DARPA, Artificial Intelligence, & The Third Offset</u> <u>Strategy</u>," Interview with Breaking Defense, February 11, 2016.

"Postcards from the future," Kent Presents Festival, October 6, 2016.

"<u>Arati Prabhakar's Game Plan for Innovation</u>," Interview with the Wall Street Journal, November 23, 2015.

"Brainworks I: Man and Machine," Techonomy, November 12, 2015.

"<u>The Cutting Edge of Cybersecurity Research</u>," Passcode Research Pavilion, October 8, 2015.

Arati Prabhakar, DARPA Director, Washington Ideas Form, September 30, 2015.

Closing remarks at DARPA's "Wait, What?" Forum, September 11, 2015.

"<u>Changing What's Possible</u>," DARPA "Wait, What?" Conference, September 9, 2015.

Interview - Arati Prabhakar, DARPA Director, DARPA Robotics Challenge Finals, June 5, 2015.

Next Generation Dialogue on Industry and Defense: Rethinking Research and Development for the DoD, with Wes Bush and Andrew Hunter, CSIS, May 26, 2015.

Press briefing, DARPA, March 25, 2015.

DARPA overview, March 9, 2015.

"<u>How Will Technology Shape the Future of War?</u>," First Annual Future of War Conference, March 3, 2015.

Keynote Address, The George Washington University School of Engineering and Applied Sciences, February 26, 2015.

"<u>The Future of Business Innovation</u>," Panel discussion with Andrew McAfee, John Haltiwanger, Laura Tyson, The Future of Work in the Age of the Machine, The Hamilton Project, February 19, 2015.

Arati Prabhakar, DARPA, Interview with Charlie Rose, January 5, 2015.

"How DARPA is creating the impossible," TED Archive, 2015.

DARPA Director addresses President's Council of Advisors on Science and Technology (PCAST) on DARPA's Mission, November 14, 2014.

Military Innovation and Changing Ways of War, with LtGen Robert E. Schmidle Jr., Maren Leed, Global Security Forum, November 13, 2014.

"DARPA director: Technological advances in neuroscience 'exciting and terrifying," CBS News, November 11, 2014.

<u>Fireside Chat, Arati Prabhakar and Michael Gorman</u>, Engadget Expand NY, November 7-8, 2014.

Grace Hopper Celebration Keynote, Anita Borg Institute, October 10, 2014.

<u>Arati Prabhakar, DARPA</u>, Cybersecurity Summit hosted by the Washington Post, October 1, 2014.

<u>CHM Revolutionaries: DARPA Director Arati Prabhakar in Conversation with</u> John Markoff, June 11, 2014.

Betting on Breakthrough Defense Technologies: Keynote with DARPA Director Arati Prabhakar, Disrupting Defense Conference, the Atlantic Council, May 14, 2014.

The Future of American Innovation, March 31, 2014.

Speech at University of Southern California Viterbi School of Engineering, February 5, 2014.

"DARPA in 2014: Director Arati Prabhakar looks ahead," Interview with FCW, The Business of Federal Technology, January 17, 2014.

"<u>Robots of the future: Q&A with DARPA Director Arati Prabhakar</u>," CBS News, December 23, 2013.

Interview with Dr. Arati Prabhakar, Director, Defense Advanced Research Projects Agency, DARPA Robotics Challenge Trials, December 2013.

Titans Breakfast Series Event Featuring Arati Prabhakar, November 19, 2013.

"<u>Driving Technological Surprise: DARPA's Mission in a Changing World</u>," 2013 Herb York Memorial Lecture, UC Institute on Global Conflict and Cooperation, November 5, 2013.

Keynote address, Naval Academy Science and Engineering Conference, November 3, 2013.

2013 AAAS Science & Technology Policy Forum, June 12, 2013.

DARPA Director Arati Prabhakar: Long-term view should guide public-sector investments, SPIE Newsroom video, June 12, 2013.

<u>University of California Berkeley College of Engineering Graduate</u> <u>Commencement Ceremony</u>, June 3, 2013.

"Driving Technological Surprise," SPIE DSS plenary presentation, May 3, 2013.

"DARPA: Driving Critical Technological Surprise," April 24, 2013.

"<u>Open for Questions: the BRAIN Initiative</u>," Interview with Administration Officials, April 2, 2013.

"DARPA: Creating & Preventing Strategic Surprise," Philosophical Society of Washington, March 22, 2013.

ARPA-E Energy Innovation Summit Keynote Speech, February 27, 2013.

"<u>Technology, Finance, and Policy Defining our Energy Future</u>," Center for Information Technology Research in the Interest of Society, UC Berkeley, August 31, 2011. QA with Arati Prabhakar, Buyouts Insider, May 21, 2001.

"An Interview with Arati Prabhakar," Caltech News, March 1995.

"Technology and Applications: Building the NII," before the IEEE/Technology Policy Council on the NII, McLean, VA, June 29, 1994.

"Designing the Information Infrastructure," before the IEEE Spectrum NII Roundtable, Washington, D.C., June 28, 1994.

"The NII and the Committee on Applications and Technology: an Update," before the North American ISDN Users' Forum NII Seminar, Washington, D.C., June 21, 1994.

"Committee on Applications and Technology of the Information Infrastructure Task Force: An Update," before the Brookings Institute, May 19, 1994.

"The National Health Information Infrastructure: Preparing for its Impact on the Future of Health Care," before the Health Care Information Solutions Conference, Washington, D.C., April 14, 1994.

"Civilian Technology for Economic Growth: The Changing Face of Federal R&D –NII Applications and Technology," before Bellcore's General Research Colloquium, Murray Hill, NJ, March 28-30, 1994.

"Federal Role in Information Infrastructure," before ARPA's High Performance Computing and Communications (HPCC) Symposium, Alexandria, VA, March 17, 1994.

"The NII: A View from the Department of Commerce," before the Annenberg Washington Program's Conference on the National Information Infrastructure, Washington, D.C., November 9, 1993.

"CALS and the NII – Information Technology Tools to Promote Economic Growth," before the CALS Exposition, Atlanta, GA, October 26, 1993.

"The National Information Infrastructure and NIST's Role," before Women in Government Relations, Washington, D.C., September 29, 1993.

"Building the National Information Infrastructure: the Role of Government," before the Industry Summit (MIT), Cambridge, MA, September 9-12, 1993.

"Profile/Arati Prabhakar; She's Not Just Setting Standards," New York Times, August 1, 1993.

Publications:

"<u>How to Unlock the Potential of the Advanced Research Projects Agency Model</u>," The Day One Project, June 2021.

"Creating an Advanced Research Projects Agency (ARPA-L) for the Department of Labor," with Joshua Schoop, Jeff Kaplan, Andrew Sosanya, The Day One Project, March 2021.

"In the Realm of the Barely Feasible," Issues in Science & Technology, Vol. XXXVII, No. 1, Fall 2020.

"<u>The merging of humans and machines is happening now</u>," Wired, January 27, 2017.

Driving Technological Surprise: DARPA's Mission in a Changing World, with DARPA staff, April 2013.

Breakthrough Technologies for National Security, with DARPA staff, March 2015.

"Technology Infrastructure," Scientific American, September 1995.

Setting Priorities and Measuring Results at the National Institute of Standards and Technology, with Mark Bello, Michael A. Baum, and other NIST staff, 1994.

"Digital Gallium Arsenide Microelectronics: Manufacturing and Applications," with Sven A. Roosild, Proceedings of the 1990 International Symposium on GaAs and Related Compounds.

"Digital Gallium Arsenide (GaAs) Upgrades for Improved Military Systems Capability," with A. S. Joseph and D. H. Butler, 1989 Government Microcircuit Applications Conference Proceedings.

"Digital Gallium Arsenide Upgrades for Military Systems," 1989 IEEE GaAs Symposium Proceedings.

Microelectronics Research and Development, Office of Technology Assessment Background Paper, March 1986.

Intellectual Property in an Age of Electronics and Information, with Office of Technology Assessment staff, 1986.

Investigations of Deep-Level Defects in Semiconductor Materials Systems, Ph.D. Thesis, California Institute of Technology, 1984.

"Thermally Induced Transition Metal Contamination of Silicide Schottky Barriers on Silicon," with T. C. McGill, AIP Conference Proceedings: The Physics of VLSI (American Institute of Physics, New York, 1984).

"Platinum diffusion into silicon from PtSi," with T. C. McGill and M-A. Nicolet, Applied Physics Letters 43, 1118 (1983).

"Injection-Locking a Krypton Fluoride Laser," IEEE 1979-80 Student Papers.

18.List all digital platforms (including social media and other digital content sites) on which you currently or have formerly operated an account, regardless of whether or not the account was held in your name or an alias. Include the name of an "alias" or "handle" you have used on each of the named platforms. Indicate whether the account is active, deleted, or dormant. Include a link to each account if possible.

LinkedIn: Arati Prabhakar. Account is active. https://www.linkedin.com/in/arati-prabhakar-a366737/

Facebook: Arati Prabhakar. Account is active. <u>https://www.facebook.com/arati.prabhakar</u>

Snapchat: aratiprab. Account is active.

Medium. @aratiprab. Account is active. <u>https://medium.com/@aratiprab</u>

19.Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

As the list below shows, I testified in front of various committees and subcommittees over 20 times related to my roles as Director of DARPA and NIST.

I have done my best to identify hearings at which I testified by consulting public records and online searches. Despite my searches, there may be House or Senate hearings at which I testified that did not appear in my searches.

Testimony related to my role as DARPA Director:

Senate Committee on Appropriations Subcommittee on Defense. Department of Defense Appropriations for Fiscal Year 2017. April 20, 2016.

Senate Committee on Armed Services Subcommittee on Emerging Threats and Capabilities. Department of Defense Authorization for Appropriations for Fiscal Year 2017 and the Future Years Defense Program: Part 5 - Emerging Threats and Capabilities. April 12, 2016.

House Committee on Armed Services Subcommittee on Emerging Threats and Capabilities. National Defense Authorization Act for Fiscal Year 2017 and Oversight of Previously Authorized Programs: Department of Defense Fiscal Year 2017 Science and Technology Programs: Defense Innovation to Create the Future Military Force. February 24, 2016

House Committee on Armed Services Subcommittee on Emerging Threats and Capabilities. National Defense Authorization Act for Fiscal Year 2016 and Oversight of Previously Authorized Programs: Department of Defense Fiscal Year 2016 Science and Technology Programs: Laying the Groundwork to Maintain Technological Superiority. March 26, 2015.

Senate Committee on Appropriations Subcommittee on Defense. Department of Defense Appropriations for Fiscal Year 2015. May 14, 2014.

Senate Committee on Appropriations. Driving Innovation Through Federal Investments. April 29, 2014.

Senate Committee on Armed Services Subcommittee on Emerging Threats and Capabilities. Department of Defense Authorization of Appropriations for Fiscal Year 2015 and the Future Years Defense Program: The Role of the Department of Defense Science and Technology Enterprise for Innovation and Affordability. April 8, 2014.

House Committee on Armed Services Subcommittee on Intelligence, Emerging Threats, and Capabilities. Department of Defense Fiscal Year 2015 Science and Technology Programs: Pursuing Technology Superiority in a Changing Security Environment. March 26, 2014.

Senate Committee on Armed Services. Department of Defense Authorization for Appropriations for Fiscal Year 2014 and the Future Years Defense Program: Part 5 – Emerging Threats and Capabilities. April 18, 2013.

House Committee on Armed Services Subcommittee on Intelligence, Emerging Threats, and Capabilities. Budget Request for Department of Defense (DOD) Science and Technology Programs. April 16, 2013.

Testimony related to my role as NIST Director:

Senate Committee on Appropriations Subcommittee on the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies. Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations, FY97. May 15, 1996.

House Committee on Appropriations Subcommittee on the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies. Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations for 1997, Part 5. April 25, 1996.

House Committee on Science Subcommittee on Technology. Technology Administration/National Institute of Standards and Technology Fiscal Year 1997 Authorization. April 16, 1996.

Senate Committee on Appropriations Subcommittee on the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies. Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations, Fiscal Year 1996. April, 6, 1995.

House Committee on Science Subcommittee on Technology. FY 1996 TA/NIST Budget Authorization. March 23, 1995.

House Committee on Appropriations Subcommittee on Commerce, Justice, and State, the Judiciary, and Related Agencies. Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations for 1996, Part 6. March 15, 1995. Senate Committee on Appropriations Subcommittee on Commerce, Justice, and State, the Judiciary, and Related Agencies. Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations, FY95. April 12, 1994.

Senate Committee on Armed Services Subcommittee on Defense Technology Acquisition and Industrial Base. Department of Defense Authorization for Appropriations for FY95 and the Future Years Defense Program Part 5: Defense Technology, Acquisition, and Industrial Base. March 18, 1994.

House Committee on Appropriations Subcommittee on the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies. Proposed FY95 Budget for the Department of Commerce Technology Administration. March 10, 1994.

House Committee on Science, Space, and Technology Subcommittee on Technology, Environment, and Aviation. The Proposed FY 1995 Budget for the Department of Commerce Technology Administration. March 10, 1994.

House Committee on Science, Space, and Technology Subcommittee on Technology, Environment, and Aviation. Role of the NIST in U.S. Technology Policy. July 26, 1993.

House Committee on Science, Space, and Technology Subcommittee on Technology, Environment, and Aviation. Defense Conversion Initiatives: Progress and Plans. July 20, 1993.

Senate Committee on Armed Services. Department of Defense Authorization for Appropriations for Fiscal Year 1994 and the Future Years Defense Program Part 5: Defense Technology, Acquisition, and Industrial Base. June 17, 1993.

Senate Committee on Appropriations Subcommittee on Commerce, Justice, and State, the Judiciary, and Related Agencies. Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations, FY94. June 16, 1993.

Senate Committee on Commerce, Science, and Transportation. Nominations of D. James Baker, Douglas K. Hall, Kathryn D. Sullivan, Arati Prabhakar, and Clarence L Irving. May 24, 1993.

20.Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

Over the last four decades, I have had the opportunity to contribute to American science and technology (S&T) through my work in a wide variety of organizations in both public and private sectors. I have had the honor to serve in two very different Federal R&D agencies. I started as a Program Manager at the Defense Advanced Research Projects Agency (DARPA), the Defense Department's agency responsible for breakthrough technologies for national security. I later served as Director of the National Institute of Standards and Technology in the Department of Commerce, a role for which I was fortunate to receive unanimous confirmation by the U.S. Senate. We expanded what is now known as the Hollings Manufacturing Extension Partnership, which today boosts the competitiveness of small and medium-sized manufacturers in all 50 states, and the Advanced Technology Program, which stimulated early-stage advanced technology development. At the same time, we significantly strengthened the NIST laboratories and their measurement standards role. When I returned to DARPA as the Director, we ran hundreds of R&D programs that drew from fields as diverse as space science and anthropology, cyber-physical systems engineering and synthetic biology, electromagnetics and advanced math. Their impact is already tangible today in revolutionary military capabilities, protection against terror threats, and platforms to combat infectious disease. In these roles, I learned to lead and manage large organizations, and to work productively with our oversight and appropriations committees in Congress, the White House, and many other Federal agencies.

Supporting exceptional people was at the heart of every achievement. As we worked together to achieve challenging goals, I got to know researchers, engineers, scientists, entrepreneurs, managers, and leaders at many universities, major defense contractors, large commercial companies, a variety of startups, nonprofit labs, and government labs and agencies. I learned about the possibilities, constraints, and ethos of the many actors in our rich and complex American research and development (R&D) community. I gained a deep understanding of the R&D process and how to inspire, lead, and manage to achieve impact—to do together what we couldn't do separately.

When President Biden asked me to be his nominee for this position, I accepted for two reasons. The first is a love of our country. The second is an abiding passion to fulfill science and technology's promise of a better future.

21. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

The responsibility for effective management and proper controls resides with the leader of the organization, and I would shoulder these responsibilities if confirmed to serve as OSTP Director.

I have led organizations ranging from 3 employees (Actuate at startup) to 3,200 (NIST). Each has its unique characteristics, but in all cases my job as a leader has been to provide clarity of mission, attract and support great people, ensure effective management and controls, manage the budget, overcome unexpected challenges, constantly reinforce an ethical foundation, and deliver on the mission.

22. What do you believe to be the top three challenges facing the department/agency, and why?

The American science and technology ecosystem is the most powerful engine for innovation in history—something that did not happen by accident. OSTP is at the heart of making sure this fact is true into the future.

- The first challenge for OSTP is to nurture and strengthen existing Federal science and technology efforts so they are as effective as possible in achieving their important missions. That includes helping the S&T system experiment, learn, and advance so it can meet America's greatest aspirations for the years ahead.
- The most pressing issues of our times will require novel approaches to create fresh possibilities for a future in which all Americans can thrive. The President has clearly identified the challenges of pandemics, public health, and cancer; climate change; economic and military competitiveness; and expanding opportunity and equity. Many new S&T initiatives hold great promise for these challenges. The Advanced Research Projects Agency for

Health (ARPA-H), the Cancer Moonshot, and the American Pandemic Preparedness Plan can open up important new approaches for health. The bipartisan Infrastructure Investment and Jobs Act includes promising new science, technology, and demonstration efforts. And the Bipartisan Innovation Act contains important provisions that would allow agencies to boost applied research and partner with industry to address global competitiveness, climate change, and regional innovation. To be successful, these efforts will require strong and nimble leadership from OSTP, along with a close partnership with departments and agencies and Congress.

• The third challenge is foundational to everything the Office must do: OSTP's success depends on the excellent staff being able to work effectively with each other and many others in a respectful and energized environment. Press reports about morale have been quite concerning. I have had only limited interaction with current OSTP staff in preparation for this nomination. My impression is that with Dr. Alondra Nelson's leadership over the last few months, the OSTP staff has created a respectful environment where many people are working with excitement on their important efforts. If confirmed, people will be my first priority. I look forward to the opportunity help nurture an environment where people wake up each morning eager to deliver on a mission that matters.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts.

All of my financial arrangements, to include retirement accounts, are described in my Executive Branch Personnel Financial Disclosure Report, which will be provided to this Committee. I have no other financial arrangements, deferred compensations agreements, or other continuing dealings with business associates, clients, or customers.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association, or other organization during your appointment? If so, please explain.

No.

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Designated Agency Ethics Official at the Office of Science and Technology Policy to identify any potential conflict of interest. Any conflict of interest will be resolved according to the terms of an ethics agreement that I have entered into with OSTP's Designated Agency Ethics Official and that will be provided to this Committee. In the event that an actual or potential conflict of interest arises during my appointment, I will consult with OSTP's ethics counsel and take the measures necessary to resolve the conflict.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Designated Agency Ethics Official at the Office of Science and Technology Policy to identify any potential conflict of interest. Any conflict of interest will be resolved according to the terms of an ethics agreement that I have entered into with OSTP's Designated Agency Ethics Official and that will be provided to this Committee. In the event that an actual or potential conflict of interest arises during my appointment, I will consult with OSTP's ethics counsel and take the measures necessary to resolve the conflict.

5. Identify any other potential conflicts of interest, and explain how you will resolve each potential conflict of interest.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the Designated Agency Ethics Official at the Office of Science and Technology Policy to identify any potential conflict of interest. Any conflict of interest will be resolved according to the terms of an ethics agreement that I have entered into with OSTP's Designated Agency Ethics Official and that will be provided to this Committee. In the event that an actual or potential conflict of interest arises during my appointment, I will consult with OSTP's ethics counsel and take the measures necessary to resolve the conflict.

6. Describe any activity during the past ten years, including the names of clients represented, in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy.

Both in my government roles and as a private citizen, I have responded to Congressional, White House, and Federal agency requests for my perspectives on public policy matters. I have not represented any clients in the capacities described here.

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, professional association, disciplinary committee, or other professional group? If yes:

a. Provide the name of agency, association, committee, or group;

b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;

c. Describe the citation, disciplinary action, complaint, or personnel action;

d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

No.

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain.

No (except for routine investigations for employment and security clearances related to Federal government roles I've held).

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain.

While serving as DARPA Director, I, along with many other public figures, was named in a civil action by an individual alleging that the government had unlawfully connected to her brain. The case was dismissed in 2013.

I, along with other board members, was named in several shareholder lawsuits while serving on the board of Leadis Technology Inc. in the 2005 timeframe. I do not recall the specifics of the suits, but I believe they were dismissed or settled out of court.

I have served on the boards of multiple other organizations, some of which have been engaged in civil litigation at various times. I had no personal involvement in the litigation or any other legal proceedings and was not named as a party other than as noted above.

To the best of my recollection, I have not been named as a party in any other legal proceedings.

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain.

No.

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain.

No.

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination.

I am not aware of additional information in this regard.

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees, and that your department/agency endeavors to timely comply with requests for information from individual Members of Congress, including requests from members in the minority?

Yes.

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistle blowers from reprisal for their testimony and disclosures?

Yes.

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee?

Yes.

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so?

Yes.

(Nominee is to include this signed affidavit along with answers to the above questions.)

F. AFFIDAVIT

Aracti Prabhakar being duly sworn, hereby states that he/she has read and signed the foregoing Statement on Biographical and Financial Information and that the information provided therein is, to the best of his/her knowledge, current, accurate, and complete.

Subscribed and sworn before me this $\frac{23^{rd}}{day}$ of $\frac{10^{rd}}{20^{22}}$.

Notary Public,







Attachment: Prabhakar Resume

ARATI PRABHAKAR

Education

Ph.D. in Applied Physics, California Institute of Technology	1984
M.S. in Electrical Engineering, California Institute of Technology	1980
B.S. in Electrical Engineering, Texas Tech University	1979

Experience

Actuate	Palo Alto, CA	2019-present
Founder and CEO		

Actuate is a nonprofit organization that aims to significantly boost our society's ability to innovate for this century's aspirations. Actuate creates solutions R&D programs that can open powerful new options for the complex challenges of climate, trusted data and information technology, access to opportunity, and health.

Center for Advanced Study in the Behavioral Sciences Stanford, CA 2017-18 Fellow

CASBS is a center at Stanford University that brings together a few dozen scholars in the social and behavioral sciences annually. I started work on a project to rethink the U.S. R&D ecosystem and had the opportunity to learn about social science and social scientists.

Defense Advanced Research Projects Agency Arlington, VA 2012-17 Director

An agency of the U.S. Department of Defense, DARPA makes pivotal early investments in breakthrough technologies for national security. DARPA's individualistic engineers and scientists craft and execute high-risk, high-payoff programs with impact measured in revolutionary new national security capabilities and fundamentally new technological possibilities. I managed approximately 200 government employees and a \$3 billion annual budget. Under my leadership, DARPA launched over 150 new programs including:

- Collaborative spectrum management using artificial intelligence for real-time sharing of limited spectrum
- A machine-only network defense challenge to develop scalable, automated cybersecurity systems
- New military systems architectures for conflict in highly contested environments
- New methods to enable social science studies at scales necessary to develop and validate causal models of social behaviors
- Neurotechnology research for precise treatment of severe neuropsychiatric disease
- Novel techniques and partnerships to demonstrate how defense can access leading-edge semiconductor technology in a global supply chain.

The current impact from the DARPA programs I oversaw includes:

• The U.S. Navy is developing new missions that were too dangerous or costly before we prototyped a self-driving ship for them.

•	The Military Services are starting to adapt more quickly to shifting threats with our
	technologies that allow complex military systems to interoperate even when they
	were not originally designed to do so.

- The Port Authority of New York and New Jersey is operating our system to detect nuclear and radiological materials to forestall a terrorist attack.
- District attorneys around the country are convicting human trafficking networks they found with the tools we developed for them to see patterns in the deep and dark web
- The rapid-response mRNA vaccine platform we kick-started enabled the fastest ever safe and effective vaccine development in response to COVID-19.

U.S. Venture Partners

Venture Partner, Partner, General Partner

USVP is an early-stage venture capital firm. I identified, invested in, and served on the boards of early-stage semiconductor and cleantech startup companies with the promise of significant growth; assessed high-growth market opportunities and high-potential teams and companies in energy and efficiency technologies, components for consumer electronics, and semiconductor process and design technology; and seeded spinouts from university research and built strong management teams around advanced technologies.

Interval Research Corporation

Vice President of Research, President

Interval was a private lab inventing new ways for consumers to use information technology. I focused the lab on opportunities in broadband technologies and applications, and launched new companies and licensing opportunities.

Raychem Corporation

Senior Vice President and Chief Technology Officer

Raychem was a publicly held \$1.8 billion global company that used its expertise in polymer technology, product design, and communications systems to address electronics, industrial, and telecommunications markets. I developed the corporate technology strategy and defined an investment framework for the company's \$100 million R&D budget.

National Institute of Standards and Technology 1993-97 Gaithersburg, MD Director

An agency of the U.S. Department of Commerce, NIST works with hundreds of companies – startups to large firms – on broad-based technologies for U.S. economic growth. I was appointed by the President and unanimously confirmed by the Senate to lead NIST. I managed an annual budget of \$500 million to \$1 billion, led a staff of 3200, and added a strengthened mission focus and new directions while reinforcing NIST's traditional culture of quality:

- Focused the Advanced Technology Program on nascent enabling technologies such as DNA sequencing
- Expanded the Hollings Manufacturing Extension Partnership to full national scale
- Expanded the Malcolm Baldrige National Quality Award to cover education and healthcare
- Created the Information Technology Laboratory within the NIST Laboratories.

Menlo Park. CA

Palo Alto, CA

Menlo Park, CA

2001-11

1998-2000

1997-98

Defense Advanced Research Projects Agency Program Manager, Defense Sciences Office

Deputy Director, Defense Sciences Office Founding Director, Microelectronics Technology Office I defined and managed investments of up to \$300 million/year in electronics R&D in universities, companies, and other labs. My programs enabled 193-nm photolithography and other advances in semiconductor manufacturing technology that are used to produce today's advanced integrated circuits, and they demonstrated the impact of new semiconductor technologies in specific military systems. I established a new microelectronics office with responsibility for investment in SEMATECH, advanced semiconductor process technology, optoelectronics, infrared imaging, nanoelectronics, neural networks, flexible manufacturing, and military insertion programs.		
• • •	shington, DC 1984-86	
Congressional Fellow and Analyst I conducted a study on critical issues in microelectronics Committee's Research and Technology Subcommittee.	s R&D for the House Science	
Professional Activities		
Pew Research Center Governing Board	2018-present	
National Academies' Science, Technology, and Economic Policy (STEP) Board	2005-12 and 2017-present	
National Academies' Board on Energy and Environmental Systems (BEES)	2021-present	
California 100 Advisor	2021-present	
National Academies' Societal Experts Action Network	2020-2021	
Chair, Efficiency and Renewables Advisory Committee for the		
U.S. Department of Energy	2010-12	
SRI International Board	2012	
Science and Technology Policy Fellows Advisory Council, California Council on Science and Technology	2009-12	
Red Team, Defense Sciences Research Council for DARPA	2009-12	
UC Berkeley EECS Industrial Advisory Board	2004-05 and 2011-12	
UC Berkeley College of Engineering Advisory Board	2011-12	
National Venture Capital Association Cleantech Council	2009-11	
PCAST Energy Technology Innovation System Working Group	2010	
University of California Multicampus Research Review Panel	2009	
National Academies' Committee on Assessing the Impacts of	2000 07	
Changes in the Information Technology R&D Ecosysten UC Santa Barbara College of Engineering Advisory Board	n 2006-07 2005-07	
Stanford University School of Engineering Advisory Council	1998-2005	
orallion of versity concoror Engineering Advisory council	1000 2000	
Honors		
AAAS William D. Carey Lectureship Award for Leadership in So	cience Policy 2018	
Texas Tech Alumni Association Distinguished Alumna	2017	
Department of Defense Medal for Distinguished Public Service	2017	
Member, National Academy of Engineering	2016	

Member, National Academy of Engineering Honorary doctorate Dartmouth

Ho

Honorary doctorate, Dartmouth	
Institute of Electrical and Electronics Engineers (IEEE) Fellow	

2016 1997

Honorary doctorate, Rensselaer Polytechnic Institute	1995
California Institute of Technology Distinguished Alumna	1995
Texas Tech Distinguished Engineer	1994
Executive Branch Leadership Award, Semiconductor Industry Association	1992
Bell Laboratories Graduate Research Program for Women Fellowship	1979-84