

*Curriculum vita***Caroline S. Wagner****Personal Information**

Address: John Glenn College of Public Affairs, The Ohio State University, Columbus, Ohio, United States of America, 43210

Date of birth: 5/6/1955

Nationality: United States

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Scholar: ORCID ID: 0000-0002-1724-8489, ResearcherID: C-6529-2009; Researchgate: https://www.researchgate.net/profile/Caroline_Wagner
Google Scholar ID: //scholar.google.com/citations?user=OBu0OHEAAAAJ&hl=en

Education

2003: Doctorate, University of Amsterdam School of Communications Research (ASCoR), Science and Technology Dynamics

1983: Master of Arts, George Washington University, Science, Technology and Public Policy

1977: Bachelor of Arts, Trinity College, liberal arts

Professional and Academic Positions

2022- Professor, John Glenn College of Public Affairs, The Ohio State University
-Affiliate, Center for Ethics and Human Values
-Affiliate, East Asian Studies Center
-Affiliate, Translational Data Analytics Institute

2011-2022: Roslyn and Milton Wolf Chair in International Affairs and Associate Professor, John Glenn College of Public Affairs, The Ohio State University

2010-2011: Associate Professor, International Affairs, Dickinson School of Law, the Pennsylvania State University, University Park, Pennsylvania (non-tenured)

2006-2010: Senior Analyst, Science & Technology Policy, Stanford Research Institute (SRI) International, Arlington, Virginia

1993-2005: Senior Analyst, and earlier positions, The RAND Corporation, Santa Monica, CA, Arlington, Virginia, and Leiden, Netherlands, including Assistant Director, Science and Technology Policy Institute (previously called the Critical Technologies Institute)

1990-1993 Professional Staff Member, U.S. Congress, House of Representatives, Committee on Science, Space, and Technology

1983-1990 Analyst, United States Government, Office of Global Issues, including two years at the United States Embassy, Seoul, Korea as Second Secretary, Economics Division

1980-1983 Research Assistant, U.S. Congress, Congressional Office of Technology Assessment

1978-1980 Technical Writer, International Business Services, Inc., Washington, DC

Awards / Honors / Appointments

2023 Elected Fellow, Sigma Xi, the Scientific Research Honor Society

2020-2023 Chair (elected), National Science Foundation Advisory Committee for the Office of International Science & Engineering

2020-now Advisor, International Center for the Study of Research, London.

2020-2021 CADRE Fellow. (Big 10 Data Alliance Fellowship Program)

2018-2020 Member, American Academy of Arts & Sciences, International Scientific Partnerships

	Steering Committee
2018-2019	National Science Foundation Committee Chair (appointed), Network of Networks, 2018-2019
2017- 2020	Clarivate, Scientific Committee for the Web of Science, appointed 2017
2016-2021	Royal Society of London keynote and book induction
2016-2022	CRDF Global, member, Advisory Council, appointed 2016
2017-2020	Newton Prize jury, (UNESCO), appointed
2017-2020	National Science Foundation (U.S. Government) Advisory Committee on International Affairs
2016	SCIMago Best Paper Award over Five-Year Period
2015-now	Council on Foreign Relations, New York and Washington, DC, elected member
2013-2015	President and Provost's Leadership Training Program, Ohio State University
2016-2018	American Association for Advancement of Science, former elected Member-at-Large, Section X, AAAS Section X, Feb 2013, and elected Distinguished Fellow, 2006.
2011-2015	Director, Battelle Center for Science and Technology Policy, John Glenn College of Public Affairs, Ohio State University
2006	Elected Distinguished Fellow, American Association for the Advancement of Science
1989	United States Government, Award for Exceptional Accomplishment
1987	United States Government, Award for Exceptional Accomplishment

Teaching

Academic Advising, Masters and Doctoral Level

Advisor	Emanuel Galdino-Castro (visitor), Universidade de Sao Paulo, 3/2023-10/2023
Advisor	Ken Poland, Glenn College Doctoral Student
Advisor	Xiaojing Cai, Fulbright Fellow (visitor), Zhejiang University, China, 2019-2020
Advisor	Sam Malloy, Spring, 2018
Thesis panel	Kayleigh Gordon, Spring 2018
Co-Advisor	Jin Hong Kim, 2015. Co-authored submitted paper
Co-Advisor	Lisa Gajary, Doctoral Student, 2013-14. Co-authored published paper
Chair	Travis Whetsell, Doctoral Student, Jan 2013-15. Co-authored published paper
Advisor	Hepeng Jia, Doctoral Student, Jun 2012 - May 2013.
Co-Advisor	DJ. Kim, Doctoral Student, Jun 2012 - Dec 2012. Co-authored published paper.

Undergraduate / Graduate / Professional Courses Taught

Writing and Communications in Public Affairs, PUBAFRS 2367, Sp 2023

Individual Studies. The Ohio State University. 2011, 2015, 2019, 2020, 2021

Leadership in the Public and Nonprofit Sectors (2130) The Ohio State University.

First Year Seminar, From Apollo to SpaceX: The United States Space Program. Ohio State University, 2016-2022

Research in Public Affairs: Dissertation. The Ohio State University. 2012, 2103, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

Public Affairs Capstone (4011). The Ohio State University 2012, 2103, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

Innovation, Technology and the Global Economy 5610. The Ohio State University. Fall 2017-Fall 2022

Science, Engineering, and Public Policy 5600. The Ohio State University. Fall 2020

Applied Public Policy Analysis. The Ohio State University.

Applied Public Policy Analysis/Capstone. The Ohio State University.

Public Policy Issues: Capstone. The Ohio State University.

Public Affairs. The Ohio State University.
 Science, Technology, and International Development. George Washington University, Public Administration.
 Technology and Knowledge Production. Virginia Polytechnic Institute and State University, Science & Technology Studies.
 Science, Technology, and International Development. George Washington University, Public Administration.
 Network Analysis. Georgetown University, Communications.
 Technology & Trade. George Mason University, School of Public Policy.

Public/Online Profile

Twitter @CarolineSWagner
 LinkedIn profile <https://www.linkedin.com/in/caroline-wagner-8736b7/>
<https://orcid.org/0000-0002-1724-8489>
 Google Scholar, 8453++ lifetime citations, h-index 38
 Wikipedia site https://en.wikipedia.org/wiki/Caroline_S._Wagner
 Multiple journalist interviews in 2020: The Atlantic, The New York Times, Nature, Science, Chronicle of Higher Education; Wall Street Journal; Nikkei Asia

Research has been featured in the following news outlets:

Science
Science Business
Times Higher Education
The Economist
Nature
University World News
China Foreign Television News
South China Morning Post
Bloomberg News
Chronicle of Higher Education
Scientific American
University World News

Select Conference/ Seminar Participation

2023

Speaker, Taiwan-Europe-US Technology and Innovation Workshop, Carnegie Center for the Study of Peace, March 31

Panelist, East Asia Study Center, The US CHIPS and Science Act: Implications for International Relations, April 7

Speaker, Atlanta Conference on Science and Innovation Policy, May

Panelist, International Society for Scientometrics and Informetrics, Indiana University, July

2022

Colloquium speaker, Georgia Tech Ivan Allen College doctoral students, December

Panelist, Indiana University doctoral seminar, October

2021

Presenter, Canadian Science Policy Conference: “Results of the Policy Forum Interviews on the Future of Science Policymaking”, October 29

Panelist, Canadian Institute for Advanced Research, Role of China in COVID Research, February

Panelist, University of Toronto President & Deans Retreat: Opportunities and Challenges in Changing Geopolitical Times, May 27, 2021.

Panelist, Bookkit_UK, “How COVID-19 has Changed Science,” April 13.

Invited Presentation, “China as ‘Taker’ in the Global Network of Science.” Duke University Center for Science and Technology Policy, March 22.

Invited Presentation, “Flows and Networks in Global Innovation Systems.” The Berkeley Working Group on Global Innovation, February 21.

Keynote Presentation, “Understanding Research Networks.” The AccelNet Program, National Science Foundation Kick-off Meeting. January 11.

2020

Keynote, International Center for the Study of Research, “Understanding International Science & Engineering,” December 2.

Panel member, Global Research Council, “Global Collaboration in Science,” November 23.

Invited Presentation, National Academy of Science Committee on Science, Engineering, and Public Policy, “Global Research Dynamics,” October 29.

Panel Member, NASPAA panel on mental health challenges in Public Affairs Education, October 15.

Panel Member, AAAS COSEPP Science and Technology Policy Forum, “Government Policy Towards Scientific Research,” October 6.

Seminar Presentation, “China’s Rise in Global Science,” Kennedy School, Harvard University. October 2.

Invited Presentation, The Swedish Foundation for Cooperation in International Research and Education (STINT), “Navigating the Landscape of Global Research,” September 29.

Panel Presentation, “Rise of China in Global Science,” EuroScience Open Forum, Trieste (moved online), September 4.

Panel Presentation, Organization for Economic Cooperation and Development (OECD) Panel on Policy Responses to COVID-19, June 17.

Keynote, Science of Team Science Annual Conference, North Carolina, June 1, 2020.

Panel Presentation, Organization for Economic Cooperation and Development (OECD) Panel on Scientific Cooperation in the Era of COVID-19, May 14.

CADRE Fellows Workshop presentation: The Rise of China as a Scientific Nation, with Xiaojing Cai, April 6, 2020.

2019

Kick-off Speaker, von Humboldt Society Forum on International Collaboration in Science and Technology, Berlin, Germany, December 2019.

Scientific Committee, Presenter, Session Organizer and Chair, The Atlanta Conference on Science and Innovation Policy, Georgia Tech, October 2019.

Organizer and Moderator, Panel on International Collaboration in Science: Challenges for the Future, American Association for the Advancement of Science (AAAS) Annual Meeting, February 2019.

Keynote Speaker, Measures for International Collaboration in Research and Development, University of Virginia and the U.S. Army Workshop, February 2019.

2018

Speaker (2 juried presentations) and panel chair, International Society of Scientometrics and Informetrics, Leiden, Netherlands, Sep 18

Organizer, Panel on Science of Science Policy, American Public Policy and Management Annual

meeting, November 2018.

Presenter, Open Countries have Strong Science, Leiden Conference on Science, Technology, and Innovation Indicators, September 2018.

Presenter, Critical Transitions and Avalanches in Journal-Journal Citation Relations, 23rd International Conference on Science and Technology Indicators, Sept 12-14, 2018.

Keynote Speaker, EarthCube All Hands Conference, June 2018.

2017

Keynote Speaker. HRD Korea. The Future of Work in a Knowledge-Driven Economy. ASEAN Forum on the Future of Work, November 2017.

Presenter. "Is international collaboration more novel?" Atlanta Conference on Science and Technology Policy, 2017.

Presenter, "High Impact Science in a Multipolar World: New Model for Understanding the Global Science System." AAAS Annual Meeting, February 2017.

2016

Presenter. "Is Science Policy a Policy Science?" Presented at the Science Policy Research Unit, University of Sussex, (England), Fifty-Year Anniversary Conference, September 2016.

2015

Keynote Speaker. The Influences and Opportunities of the Global Network of Science, Organization for Economic Cooperation and Development (OECD), Science and Technology Policy Ministerial, Seoul, South Korea. Oct 2015.

Presenter. The Lessons for Developing Countries to be Learned from the Global Network of Science, World Science and Technology Forum, Daejeon, South Korea. Oct 2015.

2014

Presenter. "Knowledge Networks among Nobel Prize Winners in Physiology or Medicine." Presented at Atlanta Conference on Science and Technology Policy. Georgia Tech, Atlanta, Georgia, United States. Sep 2014.

Presenter. "Declining Asymmetries in China's International S&T Relations: Impact and Consequences." Presented at The Role of Science and Technology in China's International Relations. Arizona State University, Tempe, Arizona, United States. Apr 2014.

Presenter. "Global Science Dominating the Agendas of National Governments." Presented at Annual Meeting of the American Association for the Advancement of Science, Chicago, Illinois, United States. Feb 2014.

2013

Presenter. "Global Science Collaborations." Presented at Government-University Industry Roundtable of the National Academy of Sciences, Other. National Academy of Sciences, Washington, District of Columbia, United States. Oct 2013.

Presenter. Networks among Nobel Prize Winners, Presenter. "Network Analysis." Presented at Science of Team Science, Northwestern University, Evanston, Illinois, United States. Jun 2013.

2012

Presenter. "Policy Implications of Global Science." Presented at African Technology Policy Society, African Union, Addis Ababa, Ethiopia. Nov 2012.

Keynote Speaker. "The Collaborative Era in Science: Insights for NSF." Presented at NSF Annual PIRE Program Review. National Science Foundation, Arlington, Virginia, United States. Nov 2012.

Presenter. "Scarcity or Abundance in Scientific Publishing?" Presented at APPAM Annual Conference, Peers within Field. Baltimore, Baltimore, Maryland, United States. Nov 2012.

Keynote Speaker. "Future of Scientific Communications." Presented at VIVO Community of Scholars, Peers within Field. Miami, Miami, Florida, United States. Aug 2012.

Keynote Speaker. "The Collaborative Era in Science." Presented at Science of Team Science 3,

Northwestern University, Chicago, Illinois, United States. Apr 2012.
 Keynote Speaker. "Science of Team Science." Presented at Science of Team Science, University of Illinois: Chicago, Illinois, United States. Apr 2012.

Funding Proposals

February, 2023. Sloan Foundation, Call for Letters of Intent. Pending
 April, 2021. National Science Foundation RAPID grants for COVID-19 research. Denies.
 March, 2020. US Department of State. International Cooperative Agreements for Science and Technology, \$20,000.00. Awarded.
 January, 2021. American Council on Education. Project on US-EU R&D Cooperation, \$6000. Awarded.
 December, 2020. Berkeley Research Group. Flows and Networks of International Research among the Top R&D Producing Nations, \$15,000.00. Awarded
 April, 2020. RAPID: Tracking and Recognizing Patterns of Communication, Search, and International Collaboration in COVID-19 Research, National Science Foundation, Awarded but not funded.
 February 2019, American Physical Society, Innovation Fund. Denied.
 September 2017, Center for Clinical and Translational Science, Ohio State University, (Wagner is on review board to aid in assessment). Awarded.
 September 2017, National Science Foundation Science of Science Innovation and Policy, Wagner, C.S., "The Local-Global Link in Research: The Case of Polymer Research." \$461,698. Denied.
 Ohio State University Transformational Data Analytics Call for Seed Funding Proposals: OhioNext Enterprise Leadership, Fall 2015, \$25,000 (USO) Principal Investigator. Denied.
 September 2016, National Science Foundation Science of Science Innovation and Policy, Wagner, C.S. "Towards Translation Indicators based on Global-Local Collaboration Sub-Networks PI: Jay Ramanathan, Co-PIs: Caroline S. Wagner, Jose Castro. \$352,016. Denied.
 Aug 2015-Jul 2017 Wagner, C.S., "Can Network Measures Serve as Indicators of Knowledge Creation and Flow? A Workshop Proposal, \$35,000 (USO) Principal Investigator. Awarded.
 Jan 2014 - Mar 2014 Wagner, C.S., "Environmental, Health, and Safety Implications of Nanoscale Research" White House Office of Science and Technology Policy. \$30,000 (USO). Principal Investigator. Awarded.
 May 2013 Wagner, C.S., "Economic Impacts of Spectra Energy Research" Spectra Energy. \$30,000 (USO). Principal Investigator. Awarded.
 Dec 2012 Shane, P., "BIG Data and the Social Future" BETHA. \$78,000 (USO). Co-Principal Investigator. Denied.
 Oct 2012 Wagner, C.S., "Measuring the Impact of NNI Research: Nano EHS Outcomes for FY2009 Projects" National Nanotechnology Coordinating Office. \$30,000 (USO). Principal Investigator. Awarded.
 Apr 2012 Wagner, C., "Reinventing the STEAM Engine: Creating a Discovery Tool," Battelle Memorial Laboratory. \$15,000 (USO). Principal Investigator. Denied.

Service

Editorships

Chief Editor and Founder, *Research Policy and Strategic Management*, *Frontiers Open Access Journal*, since October 2019.

Editor, *Science and Public Policy*, Oxford University Press, 2010-2019

Editorial Advisor, *Journal of Contemporary East Asia*, since 2015

Editorial Advisor, *Journal of Policy and Complex Systems*, since 2013

Reviewer

Reviewer, Georgetown University's Center for the Study of Emerging Technologies, 2020

Reviewer, *Nature*, 2020, 2021, 2022, 2023
 Reviewer, *Proceedings of the National Academy of Science* (Peer) Numerous
 Reviewer, *Public Library of Science, One*, (Peer) Numerous
 Reviewer, *Technological Forecasting and Social Change*, Numerous
 Reviewer, *Public Library of Science, Biology* (Peer) 2018
 Reviewer, *Scientometrics*, Reviewer (Peer) 2020, 2021, 2022, 2023
 Reviewer, *Research Policy*, Reviewer (Peer) 2020, 2021, 2022, 2023
 Reviewer, *Research Evaluation* (Peer) Numerous
 Reviewer, *Science*, Peer Reviewer (Scientific). 2022, 2023
 Reviewer, *Social Science Information Journal* (Peer) 2015
 Reviewer, *Technology in Society* (Peer) 2018 and 2019

Service on College & University Committees

John Glenn College Committee on SEPI Minor, 2020-2023 (ongoing)
 Chair, Glenn College Awards Committee, Best Undergraduate Paper, 202-2023
 Special Advisor to ERIK, University Office of Research, Fall 2022.
 Senate Committee on Honorary Degrees, Member and Elected Chair, 2020-2023.
 President's Committee on Commencement Speakers, appointed, 2021.
 Senate Cabinet Member, 2020-2021; 2015-2016
 Presidential Implementation Team for Suicide Prevention and Mental Health, 2018-2020
 Faculty Advisor for Graduate Representatives to the Ohio State University Board of Trustees, 2019-2020
 John Glenn College Curriculum Committee for Minor on Science, Engineering, and Public Policy, 2017-present
 John Glenn College Graduate Curriculum Committee, Glenn College, 2017-2018, 2022-2023
 ADVANCE (NSF grant) Board of Advisors, 2017 – 2019
 John Glenn College, Wellness Committee, 2018-2020
 Alternate, Faculty Senate, Glenn College, 2017-2018; 2020-2021
 Chair, University Senate Committee on Research, 2015-2017 and member, 2014-2017.
 Created minor and curriculum for the Undergraduate Minor in Science, Engineering, and Public Policy, approved, Sep 2015.
 Committee Chair, Curriculum Committee, Undergraduate Minor in Science, Engineering, and Public Policy, John Glenn College of Public Affairs, 2015.
 The Ohio State University, University Senate Research Committee Member, May 2014-2017
 The Ohio State University, Discovery Themes Energy and Environment Board, Member, Apr 2013
 The Ohio State University, Glenn School Director Search, Member, Feb 2013
 The Ohio State University, Undergraduate Curriculum, Advisor, Glenn College 2013
 The Ohio State University, Undergraduate Curriculum, Member, Glenn College 2012
 The Ohio State University, Search Committee (2) Glenn School Director, Member, Sep 2013 - Jan 2014
 The Ohio State University, Discovery Themes proposal team, Coordinator, Aug 2013 - Jan 2014

Service to Professional and International Societies

Advisory Board Member, Council of Canadian Academies, International Science and Technology Planning Committee, September 2022-September 2023
 Scientific Organizing Committee, Atlanta Conference on Science and Innovation Policy, 2023
 Scientific Organizing Committee, Institute for the Study of Scientometrics and Informatics 2023 Conference, 2022-2023
 Advisory Council, International Center for the Study of Research, Elsevier, 2022-2023
 Advisory Council, National Science Foundation (US Government) Office of International Science and

Engineering, 2018-2020; Elected Chair, 2020, term extended to 2023

Advisory Council, Elsevier
 Reviewer, National Science Foundation Indicators of Science and Engineering, 2021, 2019.
 Advisor, National Science Board, Vision 2030, 2020
 Consultant, Danish Uddannelses- og Forskningsministeriet, 2018
 Advisory Committee, American Academy of Arts and Sciences investigation of international collaboration in science and technology, 2018-2020
 Advisory council, Open Scholarship Initiative, 2017-2020
 Reviewer, AAAS Annual Meeting Panel and Presentation Jury, multiple years
 Scientific Committee, Atlanta Conference on Science and Technology Policy, 2018, 2019
 Scientific Committee, International Society for Scientometrics and Informetrics, 2018-2019
 Advisor, Department of Defense Foresight Report on the Future of Artificial Intelligence, May 2018
 Jury, Newton Prize, Royal Society of London, 2016-present
 Advisor, United Nations Conference on Technology and Trade Sustainable Development Goals planning committee, 2017
 Scientific Committee, Atlanta Conference on Science and Technology Policy, 2013 and 2015
 Scientific Committee, Computational Social Science Society of the Americas Conference, 2015
 Workshop Chair, International Society for Scientometrics and Informetrics, 2013 and 2015
 American Association for Advancement of Science, Section X, At-large Member, 2009-2011
 American Association for Advancement of Science, AAAS, Appointed Advisor, 2012
 Royal Society of London, Working Group on International Science, Advisor, 2010 - 2011
 Member, United Nations Millennium Development Goals Task Force on Science, Technology, and Innovation, 2003-2005

Published Works***Books & Monographs (peer reviewed)***

Wagner, C.S., Poland, K., Yan, X. (2021). **Flows and Networks of Innovation among the Top R&D Nations. Monograph: The Berkeley Research Group.**

Popper, S.W., Blumenthal, M., Wagner, C., Han, E., Lilly, S., Morris, L.J. (2020). China's Propensity for Innovation in the 21st Century. Santa Monica: The RAND Corporation.

Wagner, C.S. The Collaborative Era in Science: Governing the Network, Palgrave, 2018 and Springer Online

Brar, S, Hawkins, R, Farley, S, Wagner, C.S. Science and Technology for Economic Growth and Industrial Development in Uganda. Washington, DC: The World Bank, 2011.

Arnold, E., Mahieu, B., Stroyan, J., Campbell, D., Carlberg, M., Giaracca, F., Horvath, A., Javorka, Z., Knee, P. Meijer, I., Sidiqi, S., Wagner, C. Understanding the Long Term Impact of the Framework Programme. Brighton: Technopolis Group, 2011.

Brar, S., Farley, SE, Hawkins, R, Wagner, C.S. Science and Technology for Economic Growth and Industrial Development in Mozambique. Washington, DC: The World Bank, 2010.

Wagner, C. S. (2008). The New Invisible College: Science for Development. Brookings Institution Press.

Mohrman, SA, Wagner, C.S. The Dynamics of Knowledge Creation: A Baseline for the Assessment of the Role and Contribution of the Department of Energy's Nanoscale Science Research Centers. Los Angeles: Center for Effective Organizations, Marshall School of Business, University of Southern California, 2008.

Mohrman, SA, Wagner, C.S. The Dynamics of Knowledge Creation: A Baseline for the Assessment of the Role and Contribution of the Department of Energy's Nanoscale Science Research Centers. Los Angeles: Center for Effective Organizations, Marshall School of Business,

- University of Southern California, 2006.
- Wagner, C.S., J. Cave, T. Tesch, V. Allee, R. Thomson, L. Leydesdorff, M. Botterman. Evaluation of NETWORKS of Collaboration among Participants in /ST Research and their Evolution to Collaborations in the European Research Area (ERA). Leiden: RAND Europe, 2005.
- Wagner, C.S., Maarten Botterman, Erik Feijen, Lars Schmidt, Steve Simmons, Christian van't Hof, Jonas Svava Iverson, Leander van Laerhoven. Europe, Competing: Market Prospects, Technology Trends, and Challenges for Virtual, Smart Business Organizations. Leiden: RAND Europe, 2004.
- Wagner, C.S., Anny Wong, Sungho Lee, Irene T. Brahmakulam. Phase Transition in U.S.-Korea Cooperation in Science and Technology Relations. Santa Monica: RAND Corporation, 2003.
- Wagner, C.S., Linda Staheli, James Kadtko, Richard Silbergliitt, Anny Wong. Learning Lessons from International Collaboration in Science and Technology. Santa Monica: RAND Corporation, 2002.
- Wagner, C.S., Irene Brahmakulam, DJ. Peterson, Linda Staheli, Anny Wong. U.S. Government Funding of Science and Technology Cooperation with Russia. Santa Monica: RAND Corporation, 2002.
- Popper, S.W., Wagner, C.S. New Foundations for Growth: The U.S. Innovation System Today and Tomorrow. Santa Monica: RAND Corporation, 2002.
- Wagner, C.S. Science and Technology Issues Facing the Nation: A Report to the President. Santa Monica: RAND Corporation, 2001.
- Wagner, C.S., Irene Brahmakulam, Brian Jackson, Anny Wong, Tatsuro Yoda. Science & Technology Collaboration: Building Capacity in Developing Countries. Santa Monica: RAND Corporation, 2001.
- Wagner, C.S., Allison Yezril, Scott Hassell. International Cooperation in Research and Development: An Update of an Inventory of U.S. Government Spending. Santa Monica: RAND Corporation, 2001. International Cooperation in Research and Development: An Update of an Inventory of U.S. Government Spending
- Fukuyama, F, Caroline S. Wagner, Richard Schum, Danilo Pelletiere. Information and Biotechnology: Global Governance Challenges for the 21st Century: Summary of a Study Group. Santa Monica: RAND Corporation, 2000.
- Wagner, C.S., Nurith Berstein. US Government Funding of Cooperation in Science and Technology with Canada and Mexico. Santa Monica: RAND Corporation, 1999.
- Wagner, C.S., Allison Yezril. Global Science and Technology Information: A New Spin on Access. Santa Monica: RAND Corporation, 1999.
- Popper, S.W., Caroline S. Wagner, Eric V. Larson. New Forces at Work: Industry Views Critical Technologies. Santa Monica: RAND Corporation, 1998.
- Wagner, C.S. International Agreements on Cooperation in Remote Sensing and Earth Observation. Santa Monica: RAND Corporation, 1998.
- Cave, J., E. Frinking, A. Lotstra, H. Grtinfeld, C. Wagner. Government as a Launching Customer: An International Survey of Public Procurement of Innovative Goods and Services. Leiden: RAND Europe, 1997.
- Wagner, C.S. Critical Technologies in a Global Context: A Review of National Reports. Santa Monica: The RAND Corporation, 1997.
- Wagner, C.S. International Cooperation in Research and Development: An Inventory of Spending and a Framework for Assessing Benefits. Santa Monica: RAND Corporation, 1997.
- Wagner, C.S. Advising the President on Science and Technology Policy. Santa Monica: RAND Corporation, 1996.
- Wagner, C.S. Techniques and Methods for Assessing the International Standing of U.S. Science. Santa Monica: The RAND Corporation, 1995.

Conference Papers & Proceedings

- Wagner, C.S., Whetsell, T. "Developing an Index of National Research Capacity," Atlanta Conference on Science and Innovation Policy, May 2023.
- Whetsell, T., Jonkers, K., Dimand, AM, Baas, J. Wagner, C.S., (2018). Democracy, Globalization, and Science, Conference of the International Scientometrics and Informatics Institute, Rome, Italy, accepted, 2019.
- Wagner, C.S., Whetsell, T., Baas, J. Openness and Impact of Leading Scientific Countries, Sep 2018. Measure of National Return in International Science Cooperation, 23rd International Conference on Science and Technology Indicators (STI) 2018.
- Bedford, D., Carlson, P., & Wagner, C. (2015). Intellectual Capital Thresholds and the Maturity of Knowledge Cities. In J. G. C. Navarro (Ed.), Proceedings of the 7th European Conference on Intellectual Capital (pp. 7-15).
- Bedford, D., Carlson, P., Wagner, C., & Ramanathan, J. (2015). Architecture and Design of a Knowledge Index for Cities. In J. G. C. Navarro (Ed.), Proceedings of the 7th European Conference on Intellectual Capital (pp. 16-24).
- Leydesdorff, L., Wagner, C., TorresSalinas, D., & Moed, H. (2007). Is the United States losing ground in science? A global perspective on the world science system in 2005. Proceedings of ISSI 2007: 11th International Conference of the International Society for Scientometrics and Informetrics, Vols I and II, 499-507.
- Wagner, C.S., Kim, DJ. "The Price of Big Science: Scarcity or Abundance in Scientific Publishing." in: Policy and Complex Systems. (Apr 2012). 1(1). 108-127.
- Leydesdorff, L., Wagner, C.S. "Is the United States losing ground in science? A global perspective on the world science system in 2005." In: Science & Complexity. (Jan 2007).
- Wagner, C.S., Leydesdorff, L, Bornmann, L. "Recent Developments in China-US Science Cooperation."
- Wagner, C.S., Borner, K, Scharnhorst, A. "Standards for Science Mapping and Classifications."
- Wagner, C.S., Bornmann, L, Leydesdorff, L. "Recent developments in China-US Cooperation in Science."

Journal Articles**2023**

Wagner, C.S., Simon, D. (forthcoming). China's Use of Formal Science and Technology Agreements as a Tool of Diplomacy, *Science and Public Policy*.

2022

- Wagner, C. Cai, X. "Drop in China-USA International Collaboration," ISSI Newsletter #69, April 2022.
- Wagner, C., Zhang, L., Leydesdorff, L. (2022). A discussion of measuring the top-1 percent most-highly cited publications: Quality and impact of Chinese papers. *Scientometrics*
- Wagner, C.S., Cai, X., Zhang, Y., Fry, C. (2022) One Year In: COVID-19 Research at the International Level, Using COVID-19 Data. *PLOS One*.

2021

- Wagner, C., Raadschelders, J., Cai, X. (in review). The Study of Public Administration: Boundaries and (Inter)disciplinarity.
- Guile, B., Wagner, C.S. (2021) A New S&T Policy for a New Global Reality, *Issues in Science and Technology*, Vol. 37, No. 4 (SUMMER 2021), 41-43. . [editor-reviewed]
- Link, A.N., Wagner, C.S. (2021). The Publicness of Publicly Funded Research, *Science and Public Policy* 48(5).
- Y Zhang, X Cai, CV Fry, M Wu, CS Wagner (2021). Topic evolution, disruption and resilience in early

COVID-19 research, *Scientometrics* 126(5), 4225-4253.

C Cai, X., Fry, C.V., Wagner, C.S. (2021) International collaboration during the COVID-19 crisis: autumn 2020 developments, *Scientometrics* 126, 3683-3692

TA Whetsell, AM Dimand, K Jonkers, J Baas, CS Wagner, 2021. Democracy, complexity, and science: exploring structural sources of national scientific performance, *Science and Public Policy* 48(5), 697-711.

Leydesdorff, L. Bornmann, B., Wagner, C.S. (2021). Improved Clusterings and Visualizations of 11,359 Journals in the JCRs 2015. *Scientometrics* (online first).

Schwaag-Serger, S., Cao, C., Wagner, C.S., Geonaga, X., Jonkers, K. (2021). What do China's Scientific Ambitions Mean for Science – and the World? *Issues in Science and Technology* of the National Academies of Science, Engineering, and Medicine. [editor-reviewed]

Leydesdorff, L., Wagner, C. S., & Zhang, L. (2021). Are University Rankings Statistically Significant? A Comparison among Chinese Universities and with the USA. *Journal of Data and Information Science*, 1(ahead-of-print).

2020

Cao, C., Baas, J., Wagner, C. S., & Jonkers, K. (2020). Returning scientists and the emergence of China's science system. *Science and Public Policy*, 47(2), 172-183.

Whetsell, T. A., Leiblein, M. J., & Wagner, C. S. (2020). Between promise and performance: Science and technology policy implementation through network governance. *Science and Public Policy*, 47(1), 78-91.

Fry, C., Zhang, Y. Cai, X., Wagner, C. (2020). Consolidation in a Crisis: Patterns of International Collaboration in COVID-19 Research, *PLoS One*, 21 Jul 2020
doi.org/10.1371/journal.pone.0236307

Wagner, C.S., Cai, X., Mukherjee, S. (2020). China's Scholarship Shows Creativity, *Scientometrics*, 1-12.

Wagner, C.S. (2020). Measuring the impacts of research investments: Beyond the economic approach, SSRN 3523823 [preprint]

2019

Wagner, C.S. (2019). A Challenge to Our Community: Openness, Relevance, and Trust. *Frontiers in Research Policy and Strategic Management*.

Wagner, C. S., Whetsell, T. A., & Mukherjee, S. (2019). International research collaboration: Novelty, conventionality, and atypicality in knowledge recombination. *Research Policy*, 48(5), 1260-1270.

Wagner, C. S., Whetsell, T. A., & Mukherjee, S. (2019). Novel findings rare from international collaborations, *Nature Index*, 7 March 2019.

Leydesdorff, L., Bornmann, L., Wagner, C.S. (2019). Interdisciplinarity as diversity in citation patterns among journals: Rao-Stirling diversity, relative variety, and the Gini coefficient, *Journal of Informetrics*, 13(1), 255-269.

Leydesdorff, L., Bornmann, L., Wagner, C.S. (2019). The relative influences of government funding and international collaboration on citation impact. *Journal of the Association for Information Science and Technology* 70(2), 198-201.

Leydesdorff, L., Wagner, C.S., Porto-Gomez, I., Comins, J., Phillips, F. (2019). Synergy in the knowledge base of US innovation systems at national, state, and regional levels: The contributions of high-tech manufacturing and knowledge-intensive services. *Journal of American Society for Information Sciences* 70(10) 1108-1123.

Leydesdorff, L. Wagner, C., Bormann, L. (2019). Diversity measurement: Steps toward the measurement of interdisciplinarity? *Journal of Informetrics*, 13(3), 904-905.

2018

- Leydesdorff, L., Wagner, C.S., Bornmann, L. (2018). Discontinuities in Citation Relations among Journals: Self-organized criticality as a model of scientific revolutions and change. *Scientometrics*, 116(1), 623-644.
- Leydesdorff, L., Wagner, C.S., Bornmann, L. (2018). Betweenness and diversity in journal citation networks as measures of interdisciplinarity—A tribute to Eugene Garfield. *Scientometrics*, 114(2), 567-592.
- Bornmann, L., Wagner, C.S., Leydesdorff, L. (2018). The geography of references in elite articles: What countries contribute to the archives of knowledge? *PLoS One*, 13(3): e0194805.
- Wagner, C.S., Whetsell, T.A., Baas, J., Jonkers, K. (2018). Openness and Impact of Leading Scientific Countries. *Frontiers in Research Metrics and Analytics*, 3(10).

2017

- Wagner, C.S., Jonkers, K. (2017). Open Countries have Strong Science. *Nature*, 530, Oct 5.
- Wagner, C.S., Whetsell, T.A., Leydesdorff, L. (2017). Growth of International Collaboration in Science: revisiting six specialties. *Scientometrics*, online first, 9 January 2017.
- Leydesdorff, L., Bornmann, L., Wagner, C.S. (2017). Generating clustered journal maps: an automated system for hierarchical classification. *Scientometrics*, 10(3), 1601-1604.
- Wagner, C.S., Leydesdorff, L. (2017). Envisioning Vision: Journal Clusters in Ophthalmology. *Insights in Ophthalmology*, 1(1).

2016

- Wagner, C.S. (2016). Rosalind's Ghost: Biology, Collaboration, and the Female. *PLoS Biology*, 4 November 2016.
- Lyons, L., Colglazier, E.W., Wagner, C.S., Borner, K., Dooley, D., Mote, C.D., Roco, M. (2016). How Collaborating in Science Helps America. *Science & Diplomacy*, June.
- Leydesdorff, L., Bornmann, L., Wagner, C.S. (2016). Replicability and the Public/Private Divide, *Journal of the Association for Scientometrics and Informetrics*.

2015

- Wagner C.S., Park H.W., Leydesdorff, L. (2015). The Continuing Growth of Global Cooperation Networks in Research: A Conundrum for National Governments. *PLoS One*, Jul 21, 2015.
- Wagner C.S., Horlings E., Whetsell T.A., Mattsson P., Nordqvist K. (2015). Do Nobel Laureates Create Prize-Winning Networks? An Analysis of Collaborative Research in Physiology or Medicine. *PLoS One*, Jul 31 2015.
- Bornmann, L., Wagner, C.S., Leydesdorff, L. (2015). BRIC countries and scientific excellence: A bibliometric analysis of most frequently cited papers. *Journal of the Association for Information Science and Technology*, 66(7), 1507-1513.
- Wagner, C.S., Bornmann, L., Leydesdorff, L. (2015). "Recent Developments in China-US Science Cooperation." *Minerva*, 53(3), 199-214.

2014

- Wagner, C.S. (2014). Innovation Goes Global. *Science*, 343(6172), 730.
- Wagner, C.S., Kim, DJ. (2014). "The Price of Big Science: Scarcity and Abundance in Scientific Publishing." *Policy & Complex Systems*, 1(1). (Mar 2014): 108-127.
- Leydesdorff, L., Wagner, C.S., Bornmann, L. (2014). "The European Union, China, and the United States in the Top-1 % and Top- 10% of Layers of Most Frequently Cited Publications: Competition and Collaborations." *Journal of Informetrics*, 8(3), 606-617.

Leydesdorff, L., Park, H.W., Wagner, C.S. (2014). International Coauthorship Relations in the Social Sciences Citation Index: Is internationalization leading the Network? *Journal of the Association for Information Science and Technology*, 65(10), 2111-2126.

2013

Wagner, C.S., Alexander, J. (2013). "Evaluating Transformative Research Programs: A Case Study of the NSF Small Grants for Exploratory Research (SGER) Program." *Research Evaluation*, 22(1), 87-197.

Leydesdorff, L., Wagner, C.S., Park, H.W., Adams, J. (2013). "International Collaboration in Science: The Global Map and the Network." *El profesional de la informacion*, 22(1), 87-94.

2012

Wagner, C.S., Leydesdorff, L. (2012). "An Integrated Impact Indicator: A new definition of 'Impact' with policy relevance." *Research Evaluation*, 21(3), 183-188.

Wagner, C.S., Wong, SK. (2012). "Unseen science? Representation of BRICs in global science." *Scientometrics*, 90(3), 1001-1013.

Leydesdorff, L., Wagner, C.S. (2012). "Macro-level indicators of the relations between research funding and research output." *Journal of Informetrics*, 3(4), 353-362.

Wagner, C.S., Wong, SK. (2012). "Unseen science? Representation of BRICs in global science." *Scientometrics*, 90(3), 1001-1013.

2011

Wagner, C.S., Roessner, D., Bobb, K., et al. (2011). "Approaches to understanding and measuring interdisciplinary scientific research (IDR): A review of the literature." *Journal of Informetrics*, 5(1), 14-26.

Wagner, C. S. (2011). The Shifting Landscape of Science. *Issues in Science and Technology*, 28(1), 77-81.

2010 and Earlier

Leydesdorff, L., Wagner, C.S. (2009). "Macro-level indicators of the relations between research funding and research output." *Journal of Informetrics* 3(4), 353-362.

Wagner, C.S. (2009). "Science and the White House, 1978-1989." *Washington Science Quarterly*, 1(1), 3-24.

Leydesdorff, L., Wagner, C.S. (2008). "Is the United States losing ground in science? A global perspective on the world science system." *Scientometrics*, 78(1) (Jan 2009): 23-36.

Leydesdorff, L., Wagner, C.S. (2008). "International collaboration in science and the formation of a core group." *Journal of Informetrics*, 2(4), 317-325.

Kostoff, R.N., del Rio, J.A., Cortes, H.D., et al. (2007). "Clustering methodologies for identifying country core competencies." *Journal of Information Science*, 33(1), 21-40.

Wagner, C. S., Leydesdorff, L. (2005). Network structure, self-organization, and the growth of international collaboration in science. *Research Policy*, 34(10), 1608-1618.

Kostoff, R.N., del Rio, J.A., Cortes H.D., et al. (2005). "The structure and infrastructure of Mexico's science and technology." *Technological Forecasting and Social Change*, 72(7), 798-814.

Wagner, C.S., (2005). "Six case studies of international collaboration in science." *Scientometrics*, 62(1), 3-26.

Wagner, C., Leydesdorff, L. (2003). Seismology as a dynamic, distributed area of scientific research. *Scientometrics*, 58(1), 91-114.

Wagner, C.S., Popper, S.W. (2003). "Identifying critical technologies in the United States: a review of the federal effort." *Journal of Forecasting*, 22(2-3), 13-128.

- Wagner, C.S., Leydesdorff, L. (2003). "Seismology as a dynamic, distributed area of scientific research." *Scientometrics*, 58(1). (Jan 2003): 91-114.
- Wagner, C.S. (2002). "The elusive partnership: science and foreign policy." *Science and Public Policy*. 29(6). (Dec 2002): 409-417.
- Morris, A., Wagner, C. (2002). Writing to the nines, RAND (pp. 1-30).

Book Chapters

- Haak, L. Wagner, C.S., (2021). The Fifth Era: Virtual Trust Networks in Transnational Research In *The Future of International Exchanges in a Post-Pandemic World*, B. Farnsworth, Ed.
- Wagner, C.S. Global Science for Global Challenges (2019). *Handbook of Science and Public Policy*, S. Kuhlmann, ed. Berlin: Edward Elgar Publishers, 2019.
- Wagner, C.S. (2018). Shaping international research collaborative networks to serve the Sustainable Development Goals. *Technology and Innovation Report*, Geneva: UNCTAD, 2018.
- Wagner, C.S. (2006). International collaboration in science and technology: promises and pitfalls. *Science and Technology Policy for Development, Dialogues at the Interface*, L. Box, R. Engelhard, eds. London: Anthem Press, 2006.
- Wagner, C.S., Cargill, C., Slomovic, A. (1994). Standards and the National Information Infrastructure: Implications for Open Systems Standards in Manufacturing. J. Abbate, Ed. *The Global Information Infrastructure*.

Other Publications & General Press Articles

- Wagner, C.S. "[China now publishes more high-quality science than other nations—Should the U.S. be worried?](#)" *The Conversation*, January 10, 2023.
- Wagner, C.S. China's International Science and Technology Agreements. A report for the U.S. Department of State, January 2022.
- Wagner, C.S. "[Intense scrutiny of Chinese-born researchers in the US threatens innovation.](#)" *The Conversation – United States*, January 2021.
- Wagner, C.S. "The Trump administration is curtailing visas for Chinese scientists. That could backfire." *The Monkey Cage Blog, The Washington Post*, June 26, 2020.
- Wagner, C.S. "CRISPR babies and other ethical missteps in science threaten China's global standing." *The Conversation - United States*, December 2018.
- Wagner, C.S. "How fair is it for just three people to receive the Nobel Prize in physics?" *The Conversation* October 4, 2017.
- Magazine letter: Wagner, C.S. "Iranian scientists," *The Economist, Letters*, Sep 19, 2015.
- Annual reports: Wagner, C.S. "Battelle Center for Science and Technology Policy Annual Report." 2012, 2013, and 2014
- Wagner, C.S. "Innovation Goes Global." *Science. Policy Forum* 343(6172). (Feb 2014): 730.
- Magazine Article: Caroline S. Wagner. "The Shifting Landscape of Global Science." *Issues in Science and Technology*, Sep 2012, 77-81.
- Magazine Article: Wagner, C.S. "Uncovering the World's 'Unseen Science'." *SciDev.net*, Jul 2012.