

Curriculum Vitae

Tian Tang

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General Information

University address: Askew School of Public Administration and Policy
College of Social Sciences & Public Policy
Bellamy Building 0659
Florida State University
Tallahassee, Florida 32306-2250

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Professional Preparation

2016 PhD, Syracuse University. Major: Public Administration.
2011 MPP, Tsinghua University, Beijing, China. Major: Public Policy.
2008 B.A., Tsinghua University, Beijing, China. Major: Law, Economics.

Professional Experience

2016–present Assistant Professor, Askew School of Public Administration and Policy,
Florida State University.

Areas of Expertise

Energy Policy, Technology Policy, Technology Innovation, Public Sector Innovation, Policy Analysis, Program Evaluation.

Honors, Awards, and Prizes

University Graduate Teaching Award Nominee, Florida State University (2020).
ITIF Energy Innovation Policy and Management Scholar, Information Technology and
Innovation Foundation (ITIF) (2019).
40 for 40 Fellowship Award, Association for Public Policy Analysis & Management (APPAM)
(2018).

In recognition of meaningful early-career contributions to the field of public policy.

Fellowship(s)

Research Fellow, Center for Organization Research and Design, Arizona State University
(2017).
Giorgio Ruffolo Research Fellow, Sustainability Science Program, Harvard University
(2014–2015).

Current Membership in Professional Organizations

American Society for Public Administration
Association for Public Policy Analysis & Management

Teaching

Courses Taught

Managing Public Financial Resources (PAD5227)
Research Design in Public Administration (PAD5700)
SMART CITY RESEARCH (PAD5907)

New Course Development

Managing Public Financial Resources (Online) (2020)
Research Design in Public Administration (Online) (2019)
Managing Public Financial Resources (2016)
Research Design in Public Administration (2016)

Doctoral Committee Cochair

Lubin, J. H., doctoral candidate.
Xu, K., doctoral candidate.
Higman, M., doctoral candidate.

Doctoral Committee Member

Lee, H., doctoral student.
Liu, Y., doctoral student.

Research and Original Creative Work

Publications

Refereed Journal Articles

**Xu, K., & *Tang, T. (2020). Closing the Gap or Widening the Divide: The Impacts of Technology-Enabled Coproduction on Equity in Public Service Delivery. *Public Administration Review*. doi:10.1111/puar.13222

* Tang is the co-first author & corresponding author. **Xu is a doctoral student. Using a novel household-level dataset, we examine how citizen coproduction via 311 affects the distributional equity in power restoration in Tallahassee after Hurricane Michael. This study fills the gap in understanding how technology-enabled coproduction interacts with local government's service delivery routines to narrow the service distributional equity gap between minority communities and others.

Zeng, J., Tong, W., & Tang, T. (2020). How do clean energy policies affect industrial green development in China? *Chinese Journal of Population, Resources and Environment*.

Using panel data of 31 provinces from 2007 to 2014, we examine the effects of three types of energy policies—renewable energy policies, energy conservation policies, and industrial upgrading policies—on the industrial green development in China, measured by reduced energy intensity. We find the effectiveness of these policies vary by policy type and by region.

Zhang, F., Tang, T., Su, J., & Huang, K. (2020). Inter-sectoral networks and clean energy innovation: Evidence from the wind power sector. *Journal of Cleaner Production*, 263. doi:10.1016/j.jclepro.2020.121287

This paper provides the first empirical investigation of the impacts of three key structural attributes of the inter-sector network—size, strength, and proximity—on innovation performance of the wind power sector. We find that a country with more globally competitive industries that are closely related to the wind industry has positive impacts on wind power innovation. Journal's impact factor: 7.246; 5-year impact factor: 7.491.

Kim, J. E., & *Tang, T. (2020). Keep the Diversity for the Future: Impacts of Renewable Portfolio Standards (RPS) on Diversifying Renewable Energy Technologies. *Renewable and Sustainable Energy Review*, 123(5). doi:10.1016/j.rser.2020.109738

*Tang is the co-first author. Using panel data of 50 states between 1997-2016, this paper studies whether renewable energy (RE) deployment policy designs that specifically target different technology tiers promote RE diversity and avoid premature technological lock-in in the RE market. Journal's impact factor: 12.11. 5-year impact factor: 12.348.

Kim, S., Swann, W., Weible, C., Bolognesi, C., Krause, R., Park, A., Tang, T., Maletsky, K., & Feiock, R. (2020). Updating the Institutional Collective Action Framework. *Policy Studies Journal*. doi:10.1111/psj.12392

This article critically reviews the Institutional Collective Action (ICA) framework, defines key concepts and formulates assumptions, as well as reviews the empirical contributions and longstanding limitations of the ICA framework.

Tang, T., & Ho, Alfred Tat-Kei. (2019). A path-dependence perspective on the adoption of Internet of Things: Evidence from early adopters of smart and connected sensors in the United States. *Government Information Quarterly*, 36(2), 321-332.

This paper provides the first empirical examination of factors that influence the adoption of the Internet of Things (IoT) by the US local government, which sheds light on the incremental change in government technology innovation and proposes strategies for local governments to embrace IoT. Journal's impact factor: 5.098. 5-year impact factor: 6.411.

Tang, T., Hou, J., Fay, D. L., & **Annis, C. (2019). Revisit the drivers and barriers to e-governance in the mobile age: A case study on the adoption of city management mobile apps for smart urban governance. *Journal of Urban Affairs*, doi.org/10.1080/0735.

**C. Annis is a former FSU master student. This paper integrates different technology adoption and e-governance frameworks and extends existing frameworks by highlighting new drivers and barriers that are specific to local governments' adoption of 311 apps for e-governance.

Tang, T. (2018). Explaining technological change in the US wind industry: Energy policies, technological learning, and collaboration. *Energy Policy*, 120, 197-212.

This paper examines the drivers of technological change in the US wind industry from perspectives of technological learning, collaboration, and energy policies, which highlights the importance of learning-by-interacting between wind project participants in improving wind farm performance. Journal's impact factor: 5.042. 5-year Impact Factor: 5.693.

Tang, T., & **Hill, H. (2018). Implementation and Impacts of Intergovernmental Grant Programs on Energy Efficiency in the USA. *Current Sustainable/Renewable Energy Reports*, 5(1), 59-66.

**H. Hill is a former FSU master student. This article reviews recent studies on intergovernmental grants for energy efficiency in the 2009 American Recovery and Reinvestment Act (ARRA)'s clean energy package, which provides a holistic picture of the implementation process of ARRA's energy intergovernmental grants and their impacts on energy efficiency, and proposes a future research agenda.

Huenteler, J., Tang, T., Chan, G., & Anadon, L. D. (2018). Why is China's wind power generation not living up to its potential? *Environmental Research Letters*, 13(4), 044001.

This article develops a framework to explain the performance of the Chinese and US wind sectors, accounting for a comprehensive set of driving factors. Using novel wind-farm level data from China and US, it points out that China's wind power underperformance is largely driven by suboptimal turbine selection and siting, which receives less attention in the literature. Journal's impact factor: 6.192.

Binz, C., Tang, T., & Huenteler, J. (2017). Spatial lifecycles of cleantech industries—The global development history of solar photovoltaics. *Energy Policy*, 101, 386-402.

Using comprehensive global databases containing 86,000 patents as well as manufacturing and sales records, this article analyzes geographic shifts in the PV sector's innovation, manufacturing and market deployment activities between 1990 and 2012. The analysis reveals spatial lifecycle patterns with lower-than-expected first-mover advantages in manufacturing and market activities and an earlier entry of firms from emerging economies in manufacturing and knowledge creation. Journal's impact factor: 5.042. 5-year impact factor: 5.693.

Tang, T., & Popp, D. (2016). The learning process and technological change in wind power: evidence from China's CDM wind projects. *Journal of Policy Analysis and Management*, 35(1), 195-222.

This article uses China's CDM wind project data between 2002 and 2009 to examine the impacts of different learning channels on the cost reduction in the Chinese wind industry. The evidence of industry-wide spillovers and the joint learning within partnerships between project developers and foreign turbine manufacturers supports the subsidies to users of wind technologies, and policy regimes that promote international collaboration and technology transfer. Featured in the National Bureau of Economic Research (NBER) Digest.

Nonrefereed Reports

Binz, C., Chan, G., Doblinger, C., Huenteler, J., Shi, D., Tang, T., Xu, L., & Anadon, L. D. (2015). *Energy Technology Innovation Policy in the Backdrop of the US-China Emissions Agreement* (Workshop Report). Cambridge, MA: Harvard Kennedy School.

Presentations

Refereed Presentations at Conferences

Tang, T. (presented 2019, November). *Supporting Long-Term Competition with Technology-Specific Policy Designs: The Renewable Portfolio Standards and Diversity in Renewable Energy Technologies*. Presentation at 2019 APPAM Fall Research Conference, Association for Public Policy Analysis & Management, Denver, CO. (International)

Berry, F., & Tang, T. (presented 2019, June). *Understanding Social Enterprise Laws and Their Diffusion across the American States*. Presentation at 2019 PMRC Conference, Public Management Research Association, Chapel Hill, NC. (International)

- Tang, T. (presented 2019, April). *Stimulating Local Government's Continuing Innovation through Intergovernmental Grants: Evidence from the Energy Sector*. Presentation at The 49th Conference of the Urban Affairs Association, The Urban Affairs Association, Los Angeles, CA. (International)
- Tang, T. (presented 2018, November). *The Impact of Intergovernmental Grants on Clean Energy Innovation: Evidence from the American Recovery and Reinvestment Act*. Poster presentation at 2018 APPAM Fall Research Conference, Association for Public Policy Analysis & Management, Washington DC. (International)
- Tang, T. (presented 2018, March). *A Path-Dependence Perspective on the Adoption of Internet of Things: Evidence from Early Adopters of Smart and Connected Sensors in the United States*. Presentation at American Society for Public Administration Conference, American Society for Public Administration, Denver, CO. (International)
- Zhang, F., & Tang, T. (presented 2017, November). *Impacts of Inter-Sectoral Networks on Technology Innovation in Wind Industry: A Cross-Country Analysis*. Presentation at 2017 APPAM Fall Research Conference, Association for Public Policy Analysis & Management, Chicago, IL. (International)
- Tang, T. (presented 2017, April). *Network Governance and Effectiveness on Renewable Energy Integration: A Comparative Case Study on Power Transmission Network in the United States*. Presentation at The 47th Conference of the Urban Affairs Association, The Urban Affairs Association, Minneapolis, MN. (International)
- Tang, T. (presented 2017, March). *Network Governance and Wind Power Integration*. Presentation at American Society for Public Administration Conference, American Society for Public Administration. (International)

Contracts and Grants

Contracts and Grants Funded

- Canfield, Casey (PI), Tang, Tian (Co-PI), Rai, Varun (Co-PI), & Gao, Xue (Co-PI). (May 2020–Oct 2020). *Collaborative Research: The SolSmart Program Evaluation*. Funded by The Solar Foundation. Total award \$145,000.
- Fang, Li (PI), Jackson, Robert (Co-PI), & Tang, Tian (Co-PI). (May 2020–Aug 2020). *Machine Learning-Based Identification of Corruption and Network Dynamics in Economic Development Projects*. Funded by College of Social Sciences and Public Policy (Collaborative Collision Seed Grant), FSU. Total award \$4,685.
- Sun, Yanshuo (PI), Zhao, Tingting (Co-PI), Jia, Minna (Co-PI), & Tang, Tian (Co-PI). (May 2020–Aug 2020). *CCSF Covid: Data-Driven Modeling and Learning of Hurricane*

Evacuee's Individual Decision Making under COVID-19 Pandemic. Funded by FSU. (None). Total award \$19,998.

Ozguven, Eren Erman (PI), Tang, Tian (Co-PI), & Piekalkiewicz, Ellen (Co-PI). (Apr 2020–Mar 2023). *CoPe RCN: Resilient Rural Infrastructure*. Funded by National Science Foundation. (1940319). Total award \$426,376.

Tang, Tian (PI). (May 2019–Aug 2019). *Overcoming the Fragmentation of Managing Multiplexed Urban Infrastructures in Disaster Recovery*. Funded by College of Social Sciences and Public Policy, FSU. Total award \$4,979.

Shekhar, Shashi (PI), Ramaswami, Anu (Co-PI), Merwade, Venkatesh (Co-PI), Marshall, Julian (Co-PI), & Tang, Tian (Co-PI). (Sep 2017–Aug 2021). *S&CC-IRG Track 1: Connecting The Smart-City Paradigm With A Sustainable Urban Infrastructure Systems Framework To Advance Equity In Communities*. Funded by National Science Foundation. Total award \$2,500,000.

FSU sub-award: \$313,391.

Tang, Tian (PI). (May 2017–Aug 2017). *FYAP: Implementing Urban Sustainability Policies through Innovative Information Management: Evidence from the City of Tallahassee*. Funded by FSU CRC. (None). Total award \$20,000.

Contracts and Grants Pending

Tang, Tian (PI). (Feb 2020). *Collaborative Research - N11: Organizational Innovations in Public and Human Services Delivery*. Submitted to National Science Foundation.

Service

Florida State University

FSU Department Service

Member, Cresse Lecture Committee (2020–present).

Member, MPA Committee (2016–present).

The Profession

Guest Reviewer for Refereed Journals

Information Polity (2019–present).

Public Performance Management Review (2019–present).

Energy Economics (2018–present).

Energy Policy (2017–present).

Environmental Policy and Governance (2017–present).

Journal of Policy Analysis and Management (2017–present).

Energy Research and Social Science (2016–present).

Public Administration Review (2016–present).

Service to Professional Associations

Member of the Conference Program Committee (Environment, Energy and Natural Resource Field), Association for Public Policy Analysis & Management (2019–2020).

Member of the 2020 PMRC Review Committee, Public Management Research Association (2019–2020).