Timothy R. McDade

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Website: https://trmcdade.github.io/
GitHub: https://github.com/trmcdade

Education		
	PhD: Duke University	2022
	Political Science: Political Economy, Quantitative Methods	
	Committee: Erik Wibbels (chair), Scott de Marchi, Michael Munger, Layna Mosley	
	AM: Duke University	2021
	Political Science: Political Economy, Quantitative Methods	
	BS, Honors: The College of William & Mary	2012
	Mathematics, Chinese Language & Literature	
	Tsinghua University	2010
	Coursework in Chinese Language and Culture	

Work Experience

BlackRock, New York, NY, USA   2022 –
Director, Economics and Data Science, Corporate Strategy   2022 –

- Led research for the BlackRock Global Retirement Initiative, a team tasked with expanding BlackRock's retirement business, encompassing over half of the firm's AUM.
- Authored articles, presentations, and other research examining the management of risks related to retirement. Analyzed topics ranging from annuity pricing and index construction through macro and microeconomics down through the financial value chain to the political and social determinants of household financial decision making.
- Proposed investment theses and products derived from analyses on the effects of demographic pressures on economic output, growth, prices, and productivity.
- Proposed asset management strategies to manage longevity risk and spearheaded the construction of a prototype product to do so.
- Proposed business model changes based on household capacity to manage retirement risks, focusing on the role of choice and trust. Focused on the way micro decision making is constrained by political economy – and how these constraints and choice sets vary across countries.
- Built and scoped successful proposals to implement retirement savings regimes across geographical regions. Served as main analyst for macrofinancial considerations on the same project.
- Coordinated internal and external forums to share knowledge from across 11 countries about best practices of retirement systems.
- Traveled to three countries to meet with and learn from clients, academics, ministerial-level government officials, and local experts.

Duke University: Durham, NC, USA   2018 – 2022
Research Associate, DevLab@Duke, Machine Learning for Peace   2018 – 2021

- Scraped international media sources to construct an event data set as input to a natural language processing algorithm that predicts democratic backsliding, civil society closures, and authoritarian influence across the world.
- Constructed data set of economic indicators for inclusion in event prediction model.
- Managed a team of research assistants.

Microsoft: Beijing, China and Redmond, WA, USA — 2012 – 2018

Data Scientist, Microsoft Azure Business Analytics — 2014 – 2018

- Led market analytics for China Azure.
- Connected Azure China reporting data pipeline to the global reporting system; built rhythm-of-business and special analysis off the integrated system.
- Relocated to Beijing in August 2016 to provide deeper in-country context, make specific recommendations based on the geopolitical climate, and improve the relationship between the Chinese and USA Azure teams.
- Built analytical tools to inform executive decisions in these key areas:
    - Strategy to improve market standing as a foreign company in China: advocated the improvement of B2C channel to capitalize on the scalability of cloud computing.
    - Price changes based on competitive analyses and price elasticity calculations.
    - Mitigating data center capacity constraints based upon customer usage analysis.
    - Marketing campaign effectiveness via analysis of lifetime value and cost-per-trial conversion.
    - Introduced machine learning models that reduced customer churn and identified top customers.
- These and other data-driven and market-based insights influenced business decisions leading to 731% growth in Microsoft Azure China's monthly revenue over 27 months.
- Led a team of four on-site and offshore contractors.

Program Manager, MACH IT Rotation Program — 2012 – 2014

Delivered four external consulting contracts for $337,500 revenue.

The College of William & Mary: Williamsburg, VA, USA — 2011 – 2012

Researcher, Computational Science in the Mathematical Sciences — 2011 – 2012
Researcher, W&M Global Business Immersion — 2011 – 2012

Skills

Technical skills:

- Python, R, SQL, Stata, Matlab, Unix/Bash, Git, LaTeX, Microsoft Office, and more
- Familiar with a broad variety of data sources, including Bloomberg, FactSet, Haver, and more
- Comfortable with a variety of databases including MongoDB and Azure SQLDB
- Strong knowledge of probability, statistics, and quantitative analysis, including time series analysis, advanced regression and statistics, financial analysis, forecasting, machine learning, factor analysis, natural language processing, and data management

Business skills:

- Synthesize, organize, and evaluate huge amounts of data and evidence — both quantitative and qualitative, from academic, technical, business, and strategic sources, to recommend action to varied stakeholders.
- Firm grasp of how politics affects economics and finance (and vice versa) at the global, state, and firm level.
- Constructing evidence-based theories of change and advocating a position or strategy.
- Detail-oriented, but able to connect to the bigger picture.
- Project and people management.

Languages

Mandarin Chinese (advanced)
Spanish (advanced reading, intermediate speaking)

Peer Reviewed Publications	Jacobs, M., McDade, T. R., Villamizar Chaparro, M., and Corea, M. (2022). The effect of covid-19 and economic stimulus on food security. *Journal of Racial and Ethnic Health Disparities* (link here).

Professional Publications	Boivin, J., Brazier, A., Fawcett, N., Fisher, P. R., Li, W., McDade, T. R., and Nikolic, F. (2024). Decoding demographic divergence. Technical report, BlackRock Investment Institute. (Link here.)

Working Papers

McDade, T. R. (2024). China's foreign investments: Hedges against policy uncertainty. *AidData at William & Mary*, (132). Williamsburg, VA. (Link here.)

McDade, T. R. and Scholtz, K. (2024). Demographics, capital efficiency, and the labor share of income. *Working Paper*. (Link here.)

McDade, T. R. (2023). Structural demographic drivers of unit labor cost. *Working Paper*. (Link here.)

McDade, T. R. (2022a). Dissertation: Economic channels for influence over governments. *ProQuest*. (Link here.)

- McDade, T. R. (2022b). Dissertation, Part I: Economic Insurance and Protest Mobilization. (Link here.)

- McDade, T. R. (2022c). Dissertation, Part II: The Effect of Ownership Concentration on Government Bond Yields. (Link here.)

- McDade, T. R. (2022d). Dissertation, Part III: China's Financial Market Statecraft. (Link here.)

McDade, T. R., Mosley, L., and Rosendorff, B. P. (2023). Political shocks and sovereign borrowing. *Working Paper*.

McDade, T. R. (2022e). The effect of information and risk on the ownership structure of government bond markets. *Working Paper*. (Link here.)

McDade, T. R. (2020c). On survey experiments. *Working Paper*. (Link here.)

McDade, T. R. (2020a). Firm responses to shocks: Reallocation of capital contingent upon property rights. *Working Paper*. (Link here.)

McDade, T. R. (2020b). Multilateral constraints on chinese behavior in south china sea territorial disputes. *Duke Global Working Paper Series*, (19) (Link here.)

McDade, T. R. (2012). Analysis and simulation of an optimal control model of an oyster population displaying an allee effect. *Undergraduate Honors Theses, William & Mary*, (499) (Link here.)

Other Publications
McDade, T. R. (2021). Who's surprised by gamestop? not me! (Link here.)

Honors,
Distinctions,
and Awards

Duke University
- Walter T. Molano Research Grant ($2,000): 2022.
- Bradley Foundation Grant Funding ($7,000): 2021.
- Walter T. Molano Research Grant ($3,000): 2021.
- Departmental Fellowship, Department of Political Science: 2018, 2019, 2020, 2021.
- Summer Research Fellowship, Duke Graduate School: 2019, 2020.
- Summer Research Fellowship, Department of Political Science: 2021.
- Russell Sage Foundation and Alfred P. Sloan Foundation: Summer Institute in Computational Social Science: 2019.

The College of William & Mary
- Monroe Scholar: ranked in the top 5% of Class of 2012 admitted students. Awarded summer research fellowship ($3,000).
- Dean's List: Fall 2011 & Spring 2012.

Invited
Presentations

February 2020: UT Austin, Restraint and National Security Conference

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Consulting
Experience

World Bank, Washington D.C., USA	2022
Consultant	2022

- Produced reports analyzing data from surveys conducted in Tajikistan, Kyrgyz Republic, and Uzbekistan.

Departmental
Service

Duke University

Teaching Assistant, Professor Peter Feaver	2022
Teaching Assistant, Professor Alexander Rosenberg	2021
Teaching Assistant, Professor Michael Munger	2020 – 2021
Research Assistant, Professor Michael Munger	2021 – 2022
Research Assistant, Professor Erik Wibbels	2019 – 2021
Research Assistant, Professor Scott de Marchi	2018 – 2019

Teaching

Foreign Policy of the US (PS 365)	Spring 2022
Thesis Writing for MA Students (PS 791)	Fall 2021
Introduction to Political Economy (PS 145)	Fall 2020

Professional
Affiliations

Council on Foreign Relations, Term Member

Professional Service   Reviewer, Economics & Politics