Jefferson Leal

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Dear Members of the Search Committee,

I write to apply for the position of Postdoctoral Research Associate in the Program in Latin American Studies at Princeton University. I am a PhD candidate in Political Science at the University of Rochester (U of R), and my fields are Comparative Politics and Political Methodology, with a concentration in Artificial Intelligence (AI) and Machine Learning. My research investigates how politicians' attributes such as ideology, populist rhetoric, and executive experience impact the policy agenda and delivery, drawing on campaign platforms from Brazil and the US, as well as electoral and survey data and administrative records on bureaucrats, public health, and fiscal policy. My work also advances the measurement of policy positions, ideology, and populism from political text employing machine learning and large language models (LLMs). I am a Graduate Fellow at the U of R Democracy Center, where I support the Bright Line Watch initiative on public opinion on the state of democracy in the US. My committee and I have agreed on a dissertation defense in Spring 2027.

Research on polarization in developing democracies, especially in Latin America, has focused heavily on partisan identities and affective polarization, leaving the relationship between nationalization of partisan agendas, responsiveness to local electorates, and policymaking relatively understudied. During the postdoctoral fellowship, I propose to investigate how economic and political shocks influence candidate positioning and public policy, using LLM-based annotations and campaign platforms from Brazilian executive elections across national, state, and municipal levels. My main working hypothesis is that candidates raise polarizing cultural issues as a low-cost electoral strategy to capitalize on voters' economic dissatisfaction. A second line of inquiry is whether the local popularity of national far-right politicians increases platform polarization of local candidates and whether this translates into right-leaning municipal laws on education, health, public safety, and social assistance. This agenda would benefit from the Blackfish computational resources of the Princeton Data-Driven Social Science initiative (DDSS), which enable the use of open-source LLMs at scale.

During the fellowship, I expect to work on Revise & Resubmit for two of my dissertation chapters and advance toward three new working papers based on Brazilian campaign platforms from 2012 to 2024 that I have already collected. Professors John Londregan and Arthur Spirling (from the Department of Politics and the Data and Intelligent Systems unit) have expressed their willingness to mentor me on this project. I would welcome the opportunity to discuss my research in the PLAS seminars. At Princeton, I would seek collaborations with faculty working on Latin American politics—including Guadalupe Tuñón, Grigore Pop-Eleches, and Rocío Titiunik. I would also pursue collaborations with Professor Thomas Fujiwara, from the Department of Economics and co-director of the Brazil LAB, who has been developing a database covering socioeconomic inequality in Brazil since the 19th century under the Inequalities research hub.

In my dissertation, I analyze how politicians' multiple attributes affect the policy agenda and delivery, combining machine learning and causal inference tools. One chapter shows that Brazilian municipalities that elected right-wing populist mayors in 2020 experienced lower and delayed COVID-19 vaccination, despite a strong national public primary healthcare system and high trust in vaccines. These effects are not explained by party ideology or political alignment. Another chapter shows that mayoral administrative experience increases COVID-19

vaccination in Brazil and rules out party ideology and bureaucratic reshuffling as alternative explanations. This chapter led to a co-authored paper conditionally accepted at the *British Journal of Political Science*, where we argue that politicians' experience, acquired through learning-by-doing in executive office, generates skills that improve subsequent service delivery.

The final chapter develops Fasti, a novel method combining deep learning and an item response model to recover ideology and policy positions. Fasti solves two challenges. First, it produces ideology scores that are interpretable in terms of policy issues that divide the political spectrum, both in terms of which issues different candidates emphasize and which positions they take on those issues. Second, it performs well in contexts where candidates use non-polarized language, a scenario ubiquitous in the Global South and in US local politics where most candidates, regardless of their party, tend to campaign on the expansion or distribution of public services. I apply it to over 21,000 campaign platforms from US House primaries and Brazilian mayoral elections. In both countries, candidates in right-leaning districts shift their platform positions to the right and place greater emphasis on right-owned issues: they devote less attention to welfare and more to politics and, in the US, they also put less emphasis on values and identity and more on the economy.

At Princeton, I could teach courses on the political economy of development and Latin American politics. I have over six years of teaching experience in higher education, four of them as an instructor of record. My teaching experience spans graduate and undergraduate courses in comparative politics, Brazilian culture and history, international political economy, microeconomics, and quantitative methods. I have consistently received strong student evaluations (above 4.4 out of 5), which praise my enthusiasm, thorough feedback, and ability to explain complex statistical and theoretical concepts intuitively. At U of R, I received the department's Graduate Student Teaching Assistant Award in 2024. I have taught causal inference and quantitative methods at the ICPSR Summer Program, the University of São Paulo, and the IPSA Summer School in São Paulo. Before my PhD, I was a lecturer at Universidade Paulista, in Brazil. In my teaching, I strive to create an environment where students feel challenged to develop intellectual and analytical rigor while mentoring those who are struggling so they are not left behind, whether through additional explanation or individual meetings.

I am also prepared to supervise students in research. In U of R's Political Science honors seminar, I mentored students in replicating journal articles and completing original empirical projects. Two of them were later admitted to leading doctoral programs in Political Science at Stanford and UCSD. At the Democracy Center, I also supervise a team of undergraduates at Dartmouth College on a Bright Line Watch project building a standardized cross-wave database of its expert and public surveys on the state of US democracy. I have also served as a co-organizer of the 4th Summer Institute in Computational Social Science (SICSS) at U of R.

My CV includes the contact information for Professors Anderson Frey, Gretchen Helmke, and Alexander Lee, who can provide letters of recommendation. I would be happy to provide any additional materials upon request. Please feel free to contact me at jefferson.leal@rochester.edu. Thank you for considering my application.

Sincerely,

Jefferson Leal