Labor Market Institutions and the Structure of Work Compensation

The Impact of Collective Bargaining on Wages and Amenities in Brazil

Lorenzo Lagos*

October 31, 2019

JOB MARKET PAPER

Abstract

Unions shape the compensation structure of millions of workers worldwide by negotiating collective bargaining agreements (CBAs) that set conditions for wages and broadly defined amenities during some time horizon. Merging the full registry of CBAs from Brazil to matched employer-employee data, this paper estimates the effects of perpetuating negotiated conditions through automatic extensions—and the resulting increase in the relative duration of amenities to wages due to preexisting nominal wage rigidity—on the structure of work compensation and workforce composition. To compare wages and amenities, I construct a wage-equivalent measure of amenity value based on the predictive power that text in a CBA has on an establishment's ability to poach workers from other employers conditional on wages. Causal effects are estimated using a matched difference-in-difference design comparing establishments with extended CBAs, before and after the introduction of automatic extensions, to workplaces not negotiating with unions at the firm level. Consistent with a simple model where unions trade-off bargaining over wages and amenities, I find that strong unions give up some wage gains in favor of substantial amenity improvements, leading to a higher aggregate value of work compensation equivalent to a 1.4-3.8% wage increase. Hence, rent-sharing can account for behaviors often attributed to hedonic balancing. Interestingly, this change in the structure of work compensation leads to an influx of low-skill workers into affected establishments. Extending the model to allow for two-sided selection, the empirical evidence suggests that less skilled individuals adversely select into these establishments due to compressed wage and amenity profiles.

---

*Columbia University (email: lorenzo.lagos@columbia.edu). I thank François Gerard, Bentley MacLeod, Suresh Naidu, and Eric Verhoogen for continual guidance and support on this project. I am also thankful to Michael Best, Sandra Black, David Card, Jonas Hjort, Wojciech Kopczuk, Ilyana Kuziemko, Simon Lee, Brendan O'Flaherty, Cristian Pop-Eleches, Bernard Salanié, Edson Severnini, Rodrigo Soares, Jan Švejnar, Miguel Urquiola, Jack Willis, and other seminar participants at Columbia University (and elsewhere) for helpful comments and suggestions. I am grateful to Miguel Duarte, Jeff Jacobs, and Samira Noronha for excellent research assistance, including help with web-scraping and reviewing case law on automatic extensions. I am also indebted to the research team at DIEESE and numerous labor union and employer association representatives for providing invaluable institutional details on collective bargaining in Brazil. This project would not have been possible without financial support from the Ford Foundation and the Center for Development Economics and Policy. All errors are my own.