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Informal Work Across the Americas

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[1] Chapter from the book manuscript *The Street Is Ours*


POLICIA
UTOP

Puzzle

- Puzzle: Informal workers have huge barriers to collective action (Perry 2007, Rueda 2007, Castells and Portes 1989) yet organize massive unions in some places.

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- Question: Why do informal workers organize?
- Argument: Officials pay informal workers to organize self-regulating groups where officials do not have the capacity to directly police them.

Theory and Contributing Literature

- Collective action problems (Olson 1965, Ostrom 1990).
- Unorganized people can create problems for the state (Collier 1979, Holland 2017).
- **My argument: Officials in low capacity places pay people to participate in self-regulating groups.**
- More resources, more participation (Ostrom 2007, Brady et al 1995).


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Research Design and Organization of the Book

- Formal model (CPS article/Chapter 2)
- **Logistic analyses on a machine-generated dataset of informal workers in LAPOP data (n=37,616)**
- Case studies: Street vendors in La Paz, El Alto and São Paulo (Chapters 4, 5, 6)

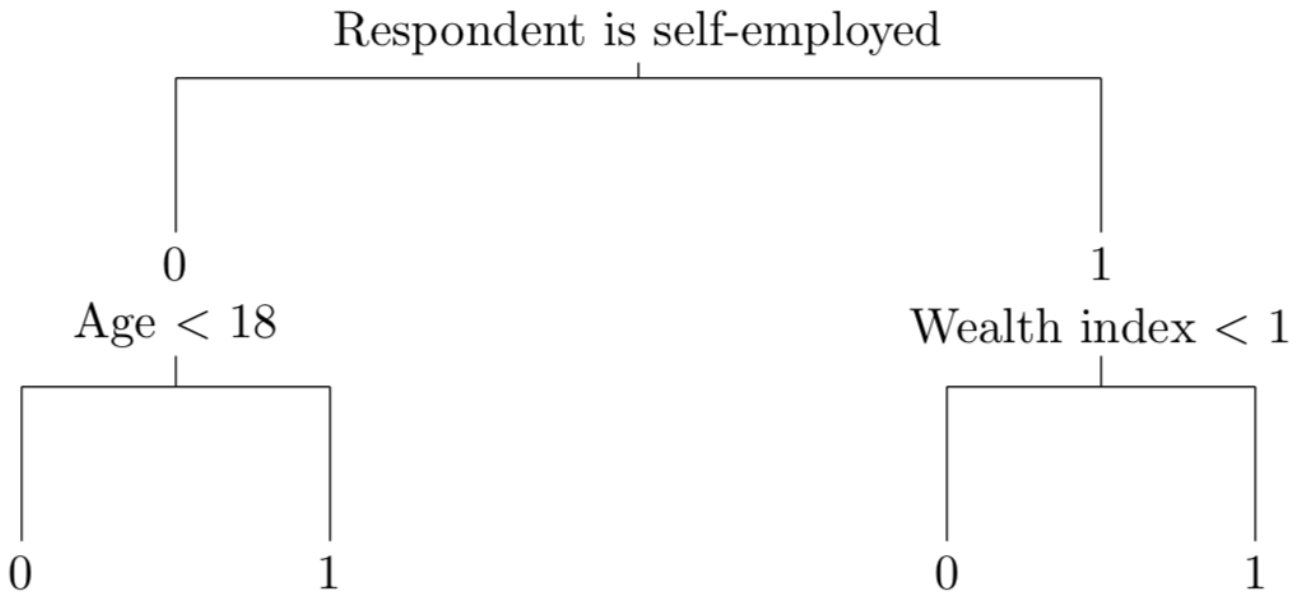
Data: Latin American Public Opinion Project Surveys

- Social security questions in 2006 and 2008 that Baker and Guachalla (2018) code for informality
- Professional association attendance in 2006, 2008, 2010, and 2012
- Occupation, age, education, household assets, and other useful things all/most years

Machine-Generated Data

- I take Baker and Guachalla's (2018) informal workers
- Train a random forest model on the known informal workers
- Predict who is informal: 37,616 people

How Random Forests Work



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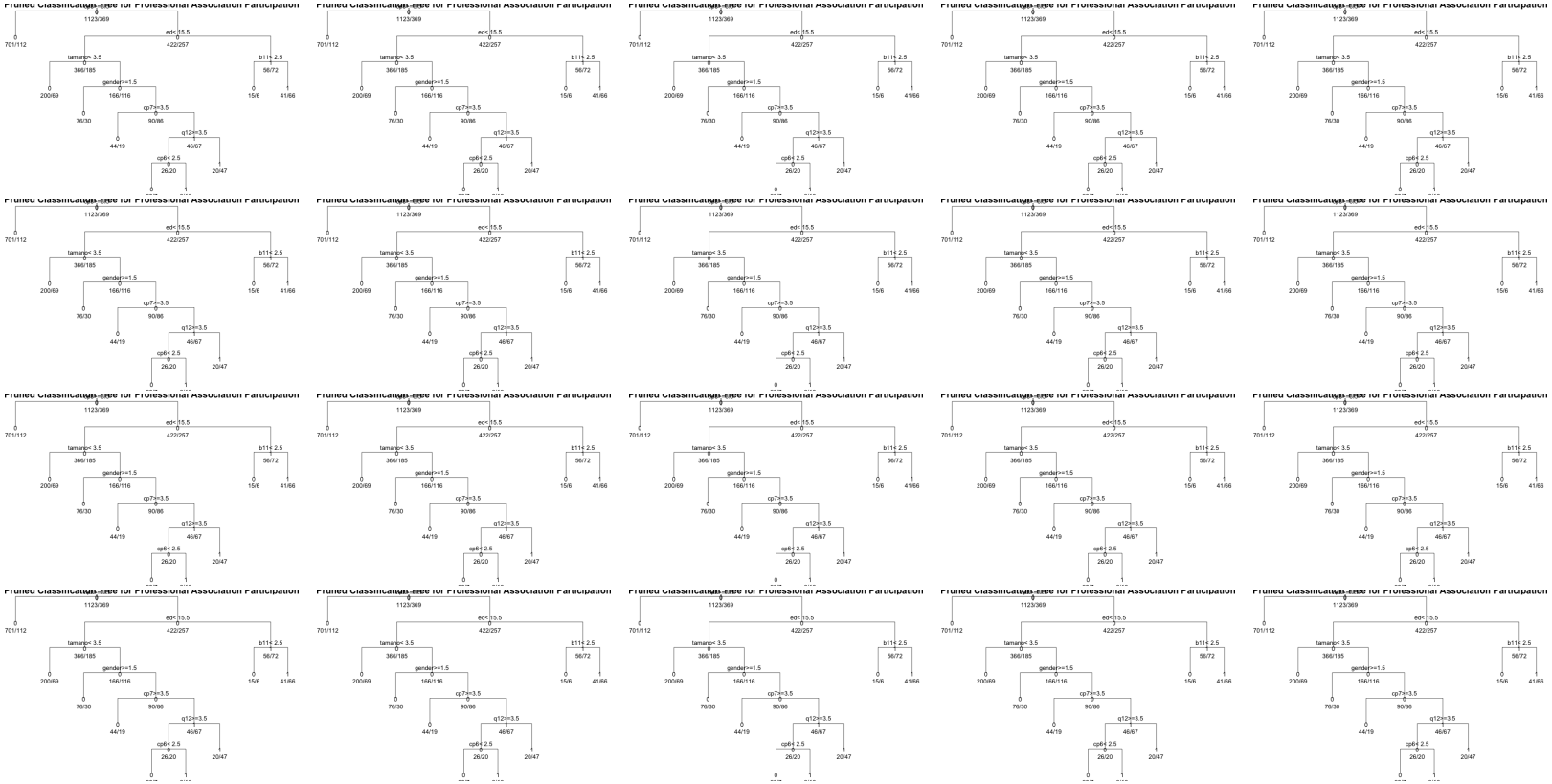
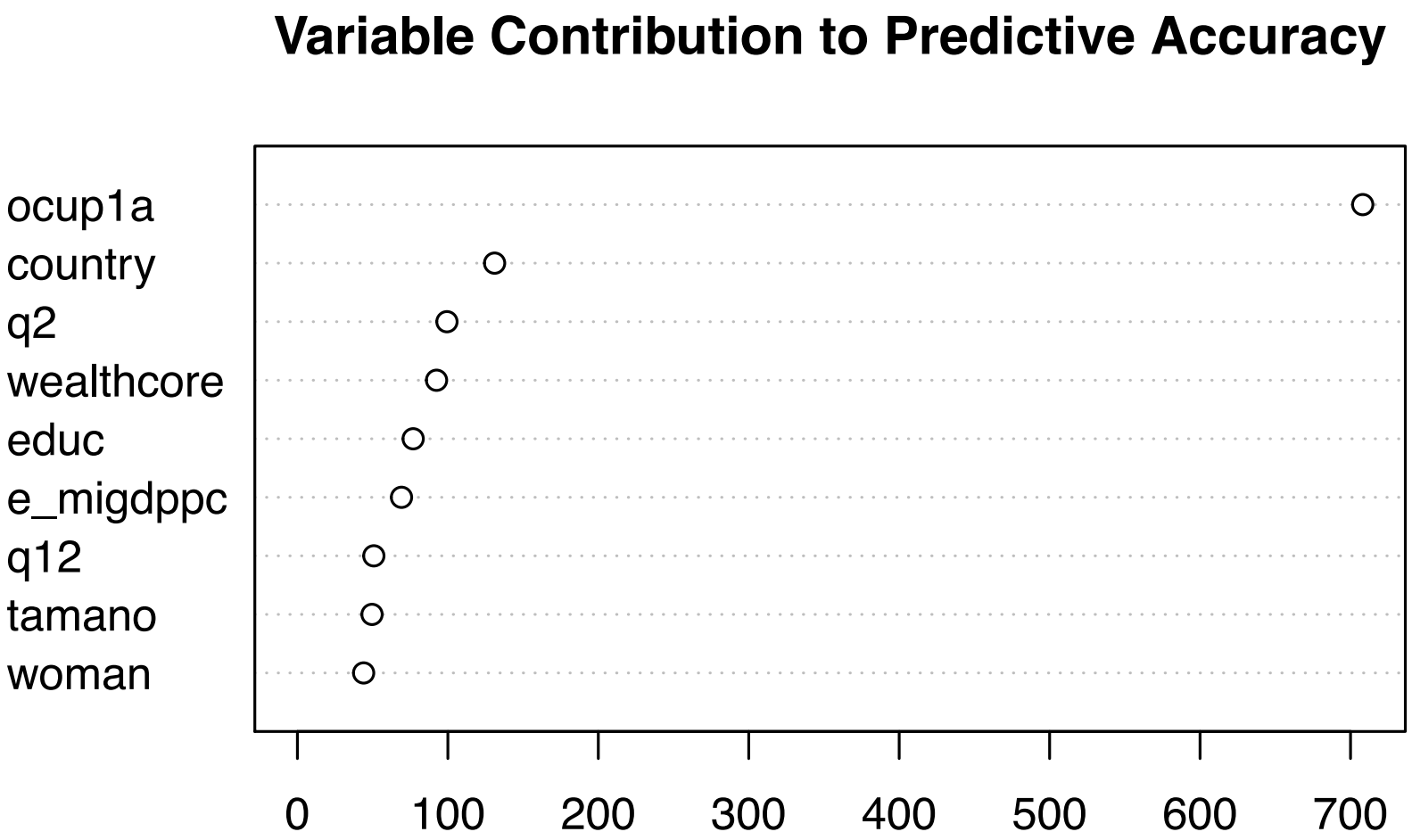


Machine-Generated Data

Prediction	Other	Informal	Error Rate
Other	3795	202	5%
Informal	331	1300	20%
Overall Accuracy	90.5%		

Machine-Generated Data



Data

- Baker and Guachalla's informal workers (2006, 2008): 15,021
- Self-employed respondents (2006-2012): 29,253
- Predicted informal workers (2006-2012): 37,616

Data

- Individual demographics from LAPOP: association participation and education
- Country-level measures from V-Dem, OECD, and World Bank: GDP, tax, and social security

At A Glance

Country	Total Informal Workers	Nonparticipants	Participants
Argentina	1191	85%	15%
Bolivia	4353	57%	43%
Brazil	1863	75%	25%
Chile	730	84%	16%
Colombia	802	84%	16%
Costa Rica	654	87%	13%
Dominican Republic	2011	76%	24%
Ecuador	3259	77%	23%
El Salvador	2043	88%	12%
Guatemala	2861	86%	14%
Haiti	1796	70%	30%
Honduras	2425	81%	19%
Jamaica	1999	81%	19%
Mexico	1680	80%	20%
Nicaragua	2563	77%	23%
Panama	1095	84%	16%
Paraguay	2312	88%	12%
Peru	2415	68%	32%
Uruguay	1027	86%	14%

Theoretical Expecdtations

- People in low capacity areas organize more.
- People with more resources organize more.

Results

	Likely Informal Workers	Self-Employed Workers	Known Informal Workers
Education	.0230*	.0294*	.0230*
	(.0003)	(.0003)	(.0005)
GDP per capita	-.0002*	-.0001*	-.0003*
	(.0001)	(.0000)	(.0001)
	N = 37,591	N = 29,230	N = 14,999

Year and country fixed effects suppressed; reported in appendix.
Standard errors in parentheses below coefficients. All tests are two-tailed.
$^*p \leq .05$

Results

	Likely Informal Workers	Self-Employed Workers	Known Informal Workers
Education	.0605*	.0604*	.0631*
	(.0038)	(.0042)	(.0059)
GDP per capita	-.0002*	-.0001*	-.0002*
	(.0001)	(.0000)	(.0001)
Female	-.4560*	-.4433*	-.5665*
	(.0297)	(.0333)	(.0475)
Age	.0095*	.0062*	.0070*
	(.0012)	(.0013)	(.0019)
Rural	.6065*	.6051*	.6080*
	(.0304)	(.0341)	(.0485)
Household Wealth	.1106	.0036	.0160
	(.1034)	(.1155)	(.0157)
Children	.5261*	.5128*	.0730*
	(.0071)	(.0076)	(.0109)
	N = 37,586	N = 29,223	N = 14,994

Year and country fixed effects suppressed; reported in appendix.
Standard errors in parentheses below coefficients. All tests are two-tailed.
*$p \leq .05$