Origins of Latin American Inequality: LACIR Chapter

Department of Economics, Dartmouth University

Lecture Series on Inequality, Discrimination and Opportunity

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Latin American and Caribbean Inequality Review

LACIR is an independent scholarly endeavour created with the aim of understanding why, despite major structural economic and social change, inequality in Latin America and the Caribbean persists at exceptionally high levels.

International Inequalities Institute at the London School of Economics and Political Science

Inter-American Development Bank

Institute for Fiscal Studies

Yale University

THEMES

We study inequality in the region through five broad themes:

We hope that understanding the nature, causes and consequences of Latin America's stable high-inequality equilibrium may provide a basis for action intended to make the region more equitable.

Levels and trends of inequality

Establishing the facts about levels and trends of inequality in outcomes

VIEW THEME ONE

Inequality of opportunity

Analyzing the role of the family and communities in shaping inequality in outcomes and intergenerational mobility

VIEW THEME TWO

Inequality and markets

Studying the link between inequality and markets for labor, capital and goods

VIEW THEME THREE

Taxation and redistribution

Considering the limited role that fiscal redistribution plays in the region to level the playing field

VIEW THEME FOUR

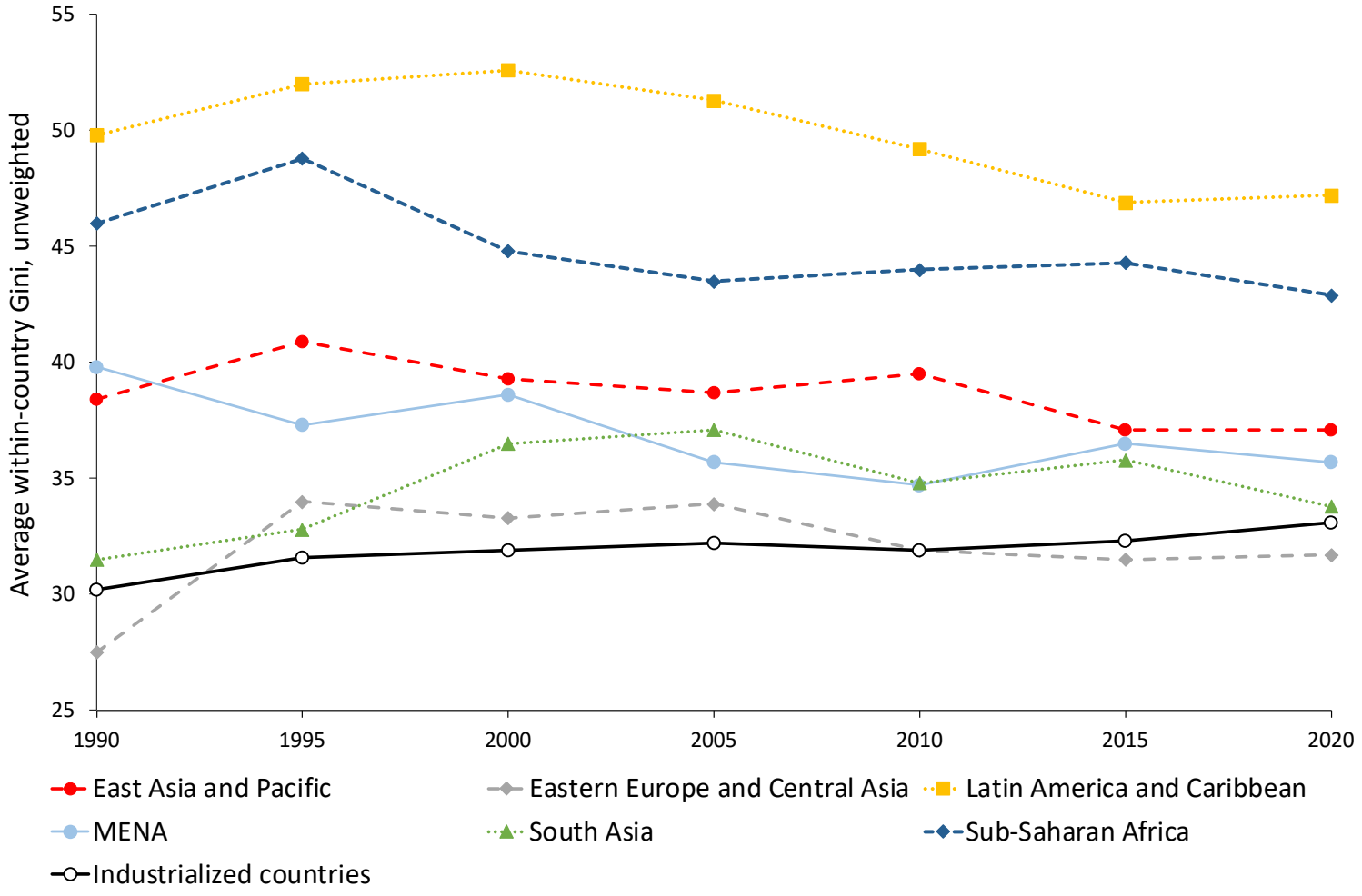
Inequality and political power

Examining how inequality shapes political voice, political representation, social unrest and political outcomes

VIEW THEME FIVE

Inequalities in Latin America are high…

Levels and dynamics of income/consumption inequality in the world 1990-2020

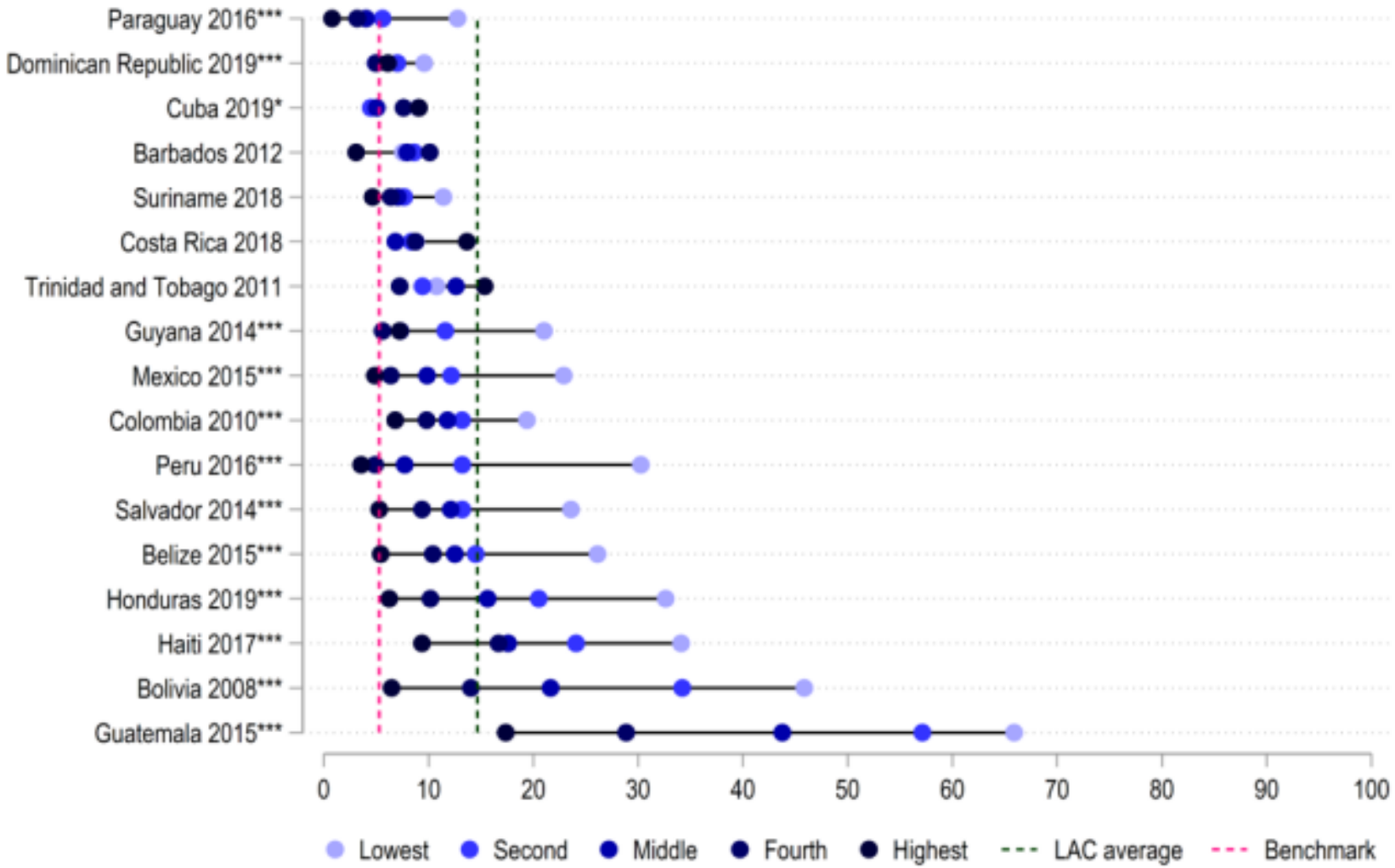


Source: Alvaredo, Bourguignon, Ferreira and Lustig (2023) III WP 111 (LACIR Series).

Note: The series for Latin American and the Caribbean, Eastern Europe, and Industrialized countries are based mostly on Gini coefficients of household per capita income. The series for East Asia and Pacific, Central Asia, MENA, South Asia and Sub-Saharan Asia are based mostly on Gini coefficients of household per capita consumption.

… multifaceted and interconnected…

Stunting rates by wealth quintile in seventeen LAC countries

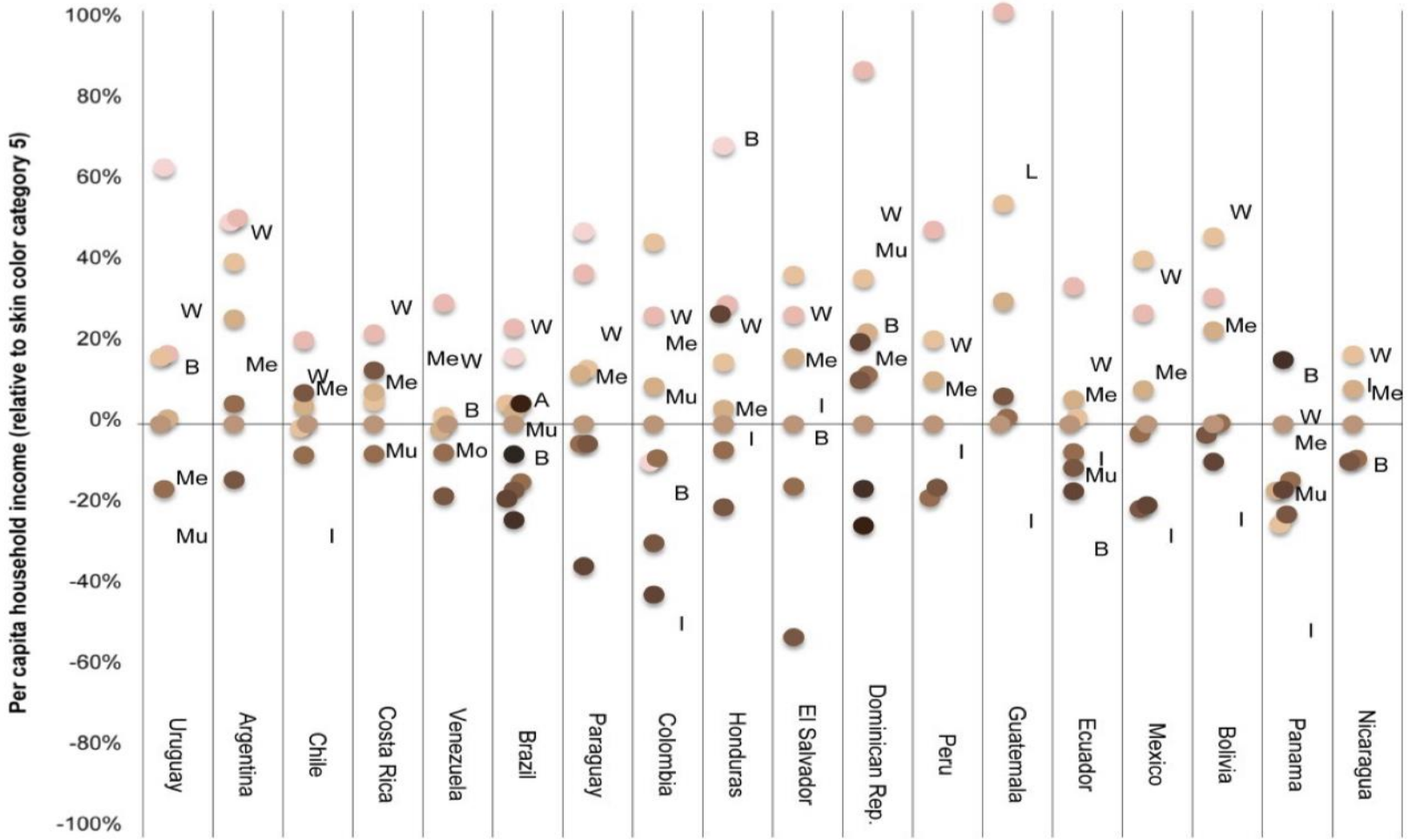


Source: Bancalari, Berlinski, Buitrago, Garcia, de la Mata and Vera-Hernandez (2023) III WP 112 (LACIR Series).

Note: Stunting rate is the percentage of children 0-5 with height for age below minus two standard deviations from the median of the WHO reference group. Quintiles of wealth refer to an asset index constructed from DHS and MICS surveys. Benchmark is the average for 14 OECD countries.

… and have an important horizontal component (e.g. between races, genders, etc.)

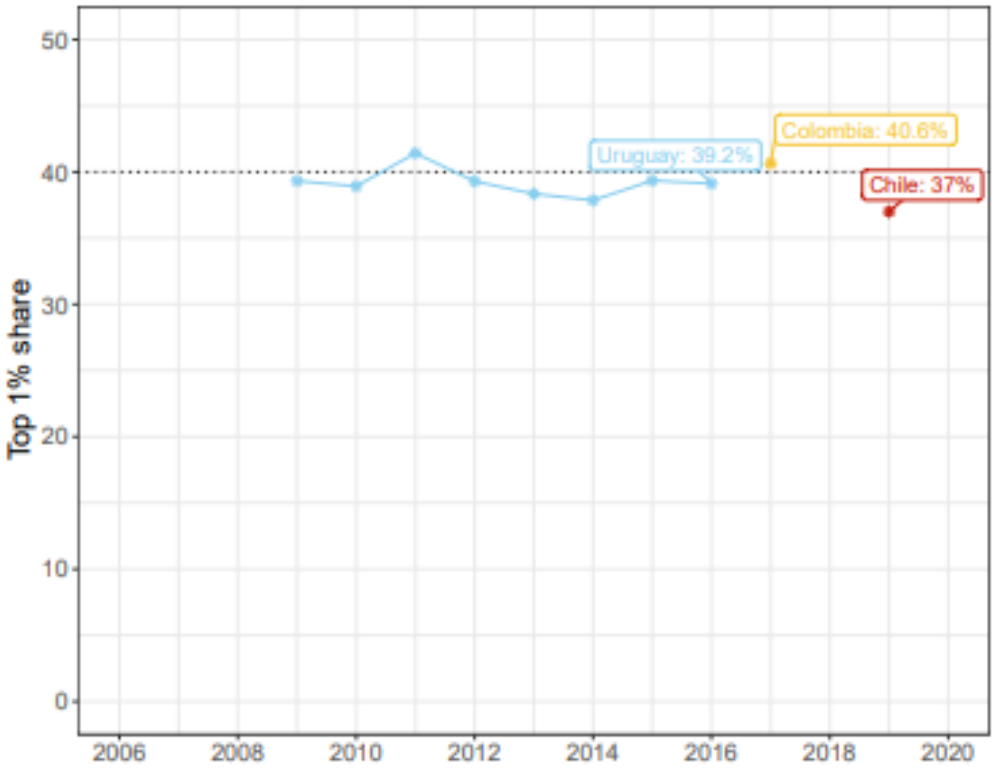
Mean per capita household income by ethno-racial category and skin Color, LAPOP 2012

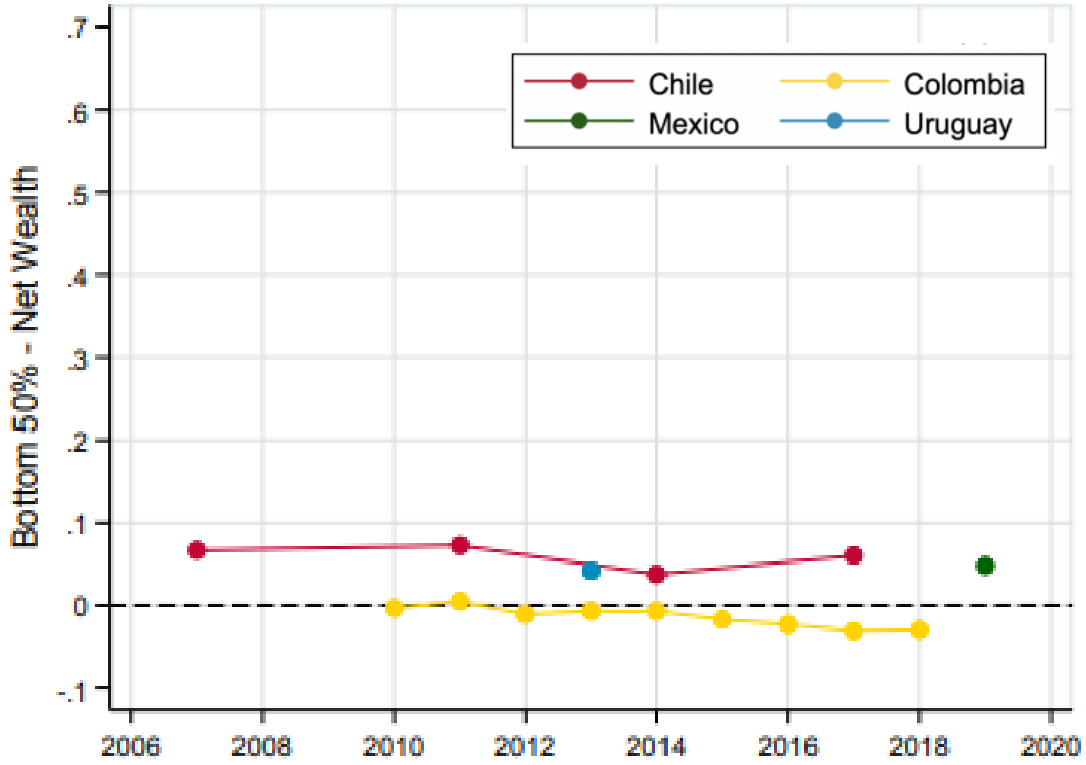


Source: Telles, Bailey, Davoudpour and Freeman (2023), III WP 113 (LACIR Series).

Notes: The mean per capita household income of skin color category five is the reference (0%) for each country. Skin color points are shaded to match the category number on the color scales. Racial categories are denoted by letters – W = white/blanca, B = black/negra, A = Asian/amarela, L = Ladina, Me = Mestiza, Mo = Morena, Mu = Mulata, I = Indígena.

… and are reflected in persistently unequal distributions of wealth…





Source: Carranza, de Rosa, and Flores (2023) III WP 91 (LACIR series)
Note: Preferred top 1% share estimates (for individual wealth) from administrative data. Bottom 50% shares (for per-capita household wealth) from household wealth surveys.

... and power.

The long shadow of colonial history:
intergenerational transmission of political power.

Juan Vázquez de Coronado y Anaya
Born: 1523 in Salamanca, Spain
Spanish conquistador of Costa Rica

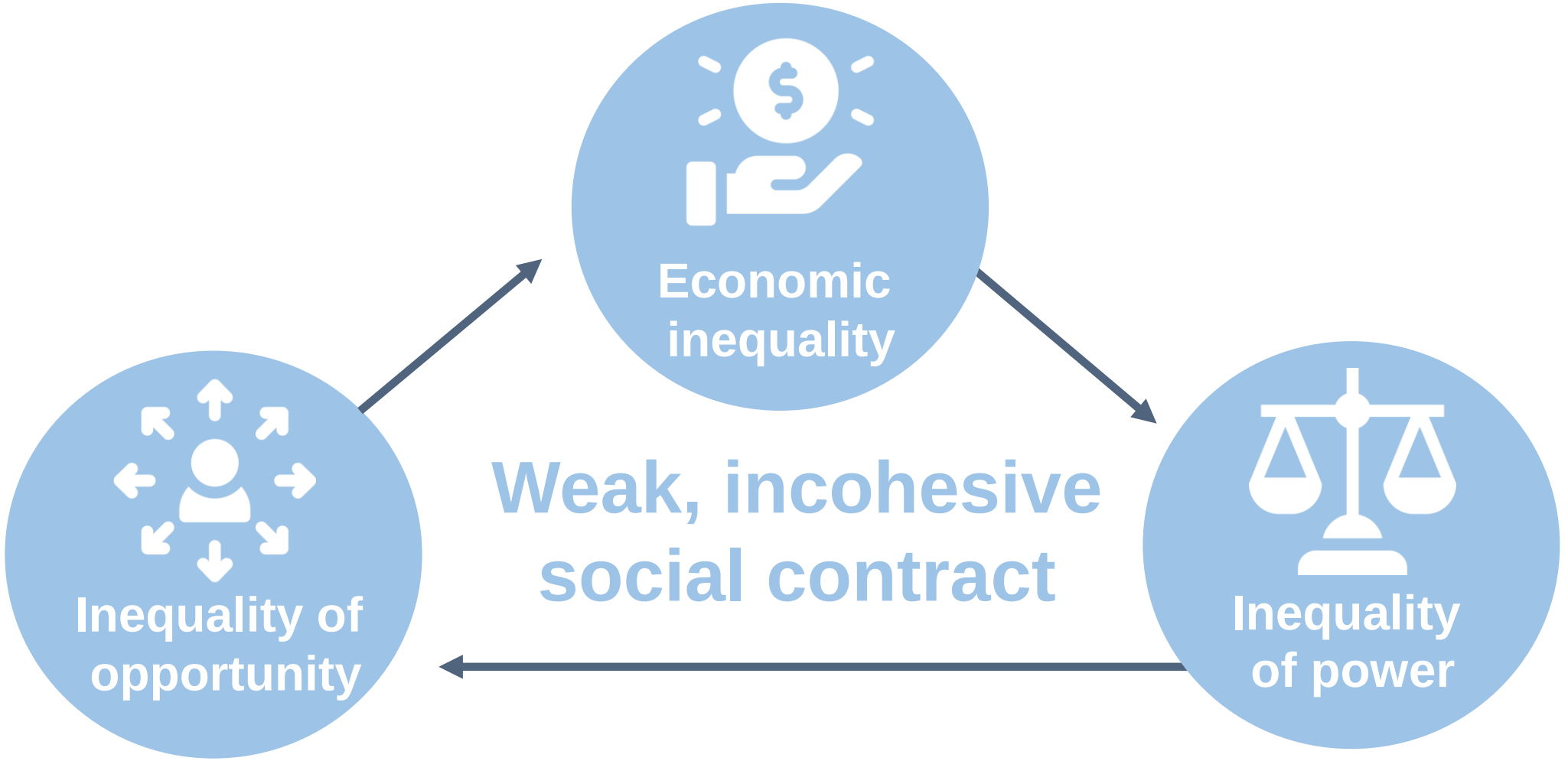
Cuadro V-1

Diputados y Presidentes en la Descendencia de Juan Vázquez de Coronado*

Juan Vázquez de Coronado	Rama A:	2 Presidentes,	48 Diputados
	Rama B:		22 Diputados
	Rama C:		1 Diputado
	Rama D:	3 Presidentes,	26 Diputados
	Rama E:		7 Diputados
	Rama F:		21 Diputados
	Rama G:		4 Diputados
	Rama H:		7 Diputados
	Rama I:	1 Presidente,	2 Diputados
	Rama J:		1 Diputado
	Rama K:		1 Diputado
Isabel Arias Dávila	Rama L:		7 Diputados
	Rama M:	9 Presidentes,	35 Diputados
	Rama N:		1 Diputado
	Rama O:	1 Presidente,	10 Diputados
	Rama P:	2 Presidentes,	23 Diputados
	Rama Q:	4 Presidentes,	12 Diputados
	Rama R:	2 Presidentes,	34 Diputados
	Rama S:		1 Diputado
	Rama T:		2 Diputados
	Rama U:	6 Presidentes,	17 Diputados
	Rama V:	1 Presidente,	3 Diputados
Total:		31 Presidentes,	285 Diputados

Source: Samuel Z. Stone (1975) – w/ thanks to Fergusson, Robinson and Torres

The long cycle of inequality reproduction in LAC



Discourse on Inequality, Rousseau, 1761

- “I conceive two species of inequality among men; one which I call **natural**, or **physical inequality**, because it is established by nature, and consists in the difference of age, health, bodily strength, and the qualities of the mind, or of the soul; the other which may be termed moral, or **political inequality**, because it depends on a kind of convention, and is established, or at least authorized, by the common consent of mankind. This species of inequality consists in the different privileges, which some men enjoy, to the prejudice of others, such as that of being richer, more honoured, more powerful, and even that of exacting obedience from them.”

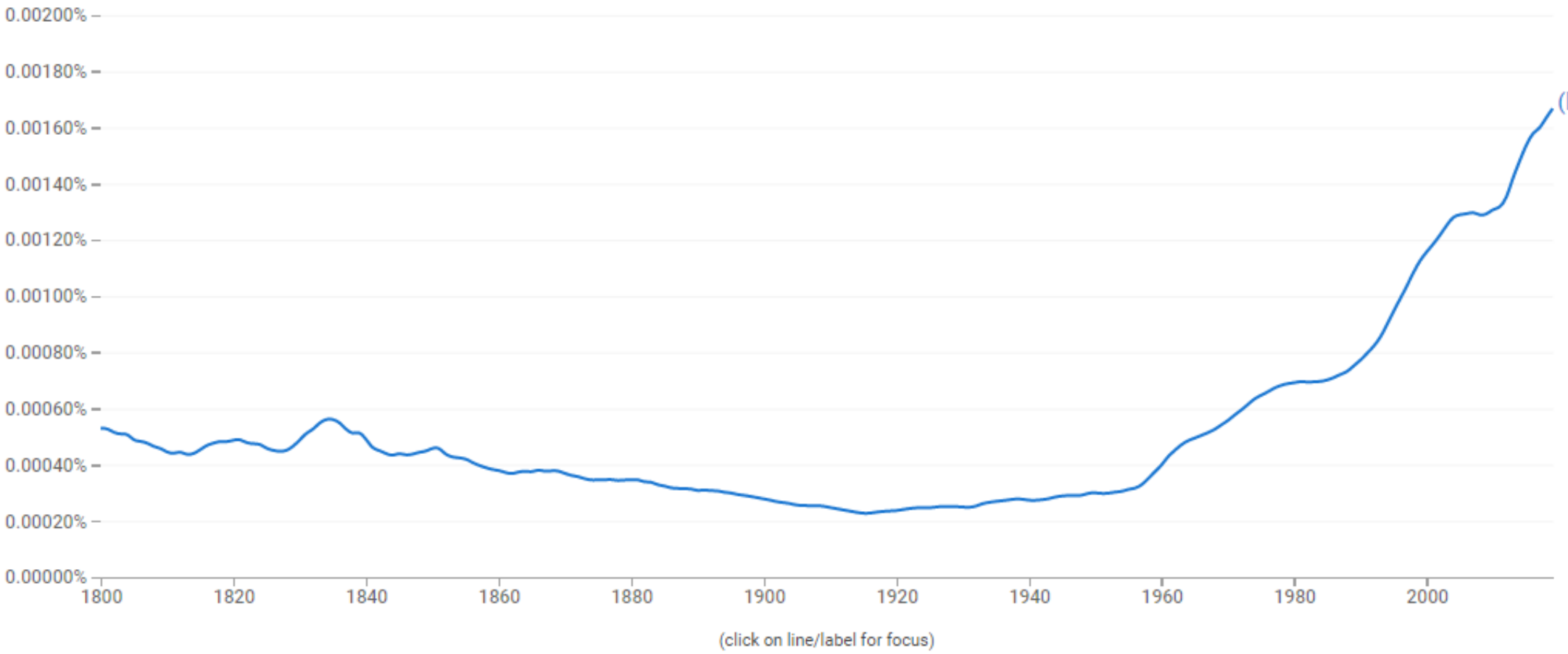
This Chapter / Outline

- Survey of the existing literature: origins of Latin American economic inequality / economic inequality in the history of the region
- Seminal papers and more modern contributions
- National differences between countries and sub-national differences within countries, along with empirics and identification techniques
- Key topics: **slavery, land reform** and **education**
- Other mechanisms: elites, health and wages
- Replications focusing on inequality (instead of income): colonial origins

Google Books Ngram Viewer

latin america+inequality

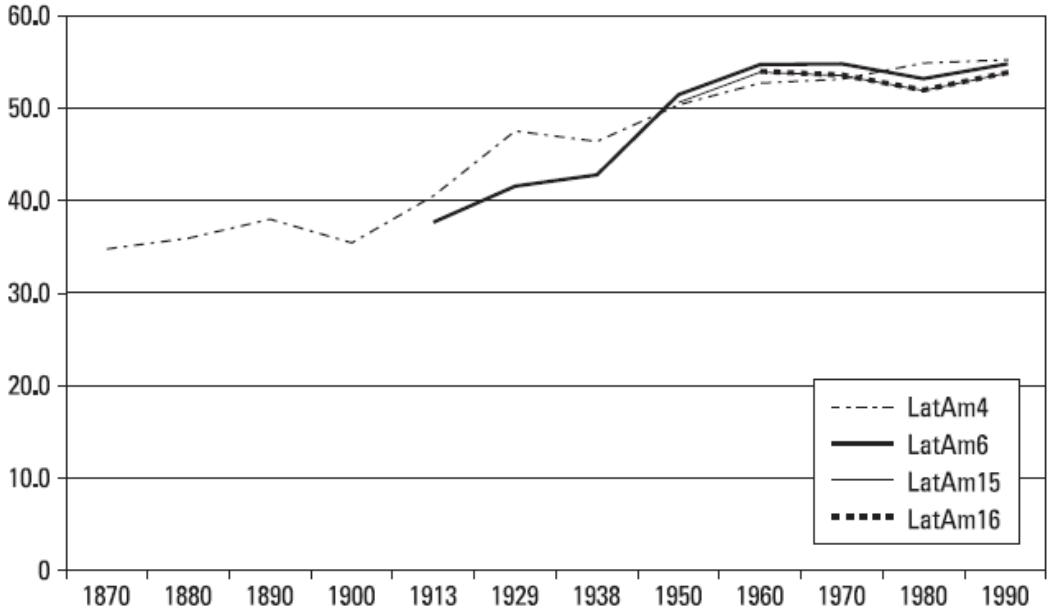
1800 - 2019 | English (2019) | Case-Insensitive | Smoothing



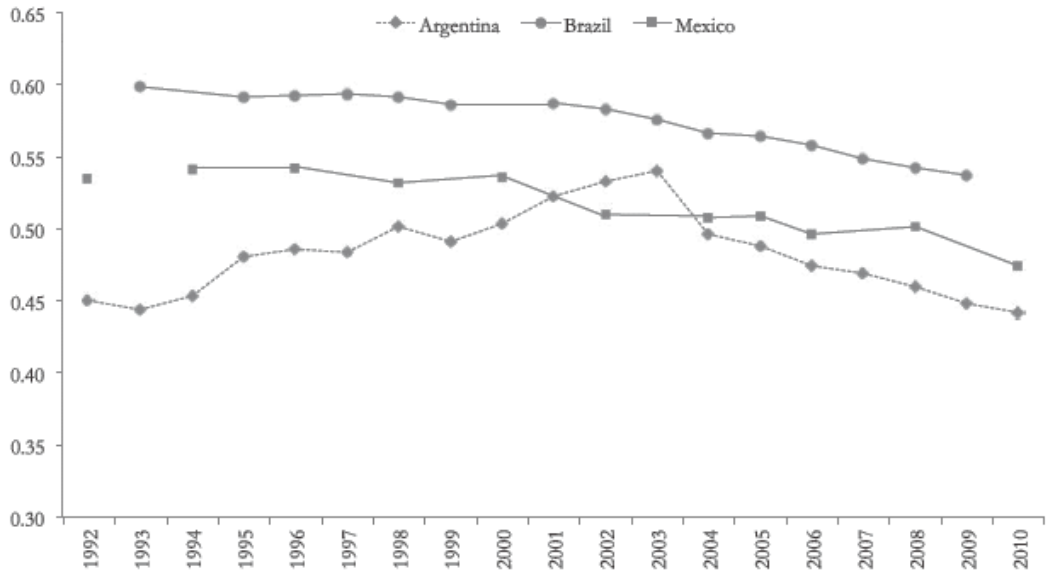
(click on line/label for focus)

Prados de la Escosura (2007) and Lustig et al. (2012): Historical Inequality in Latin America

Secular increase during the XXth C.

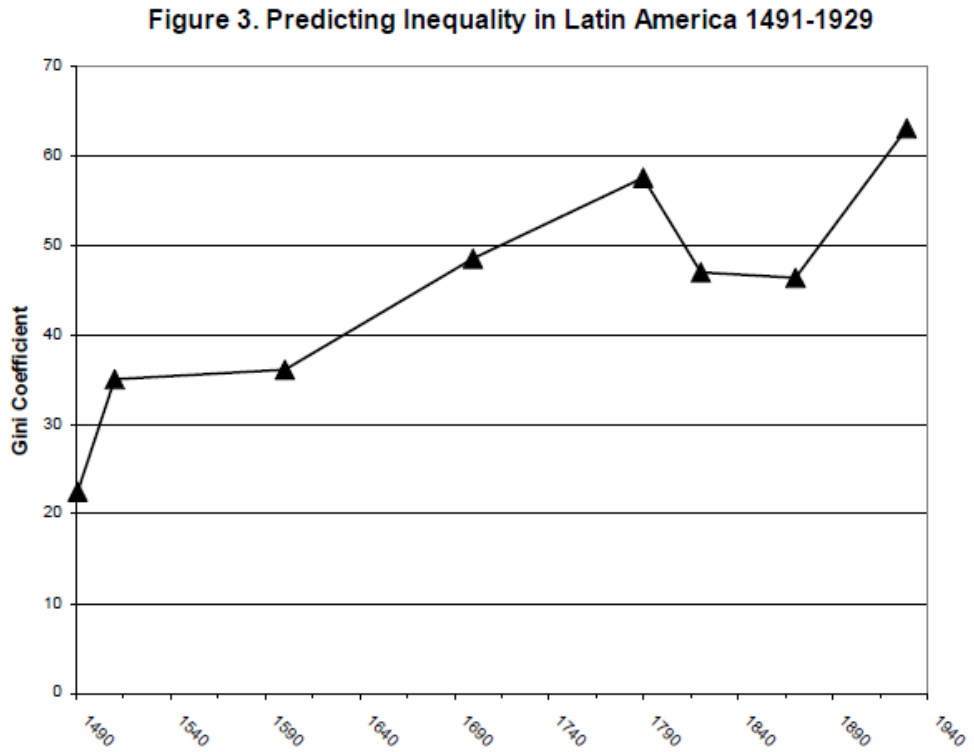


Decline during the 2000s, pre COVID

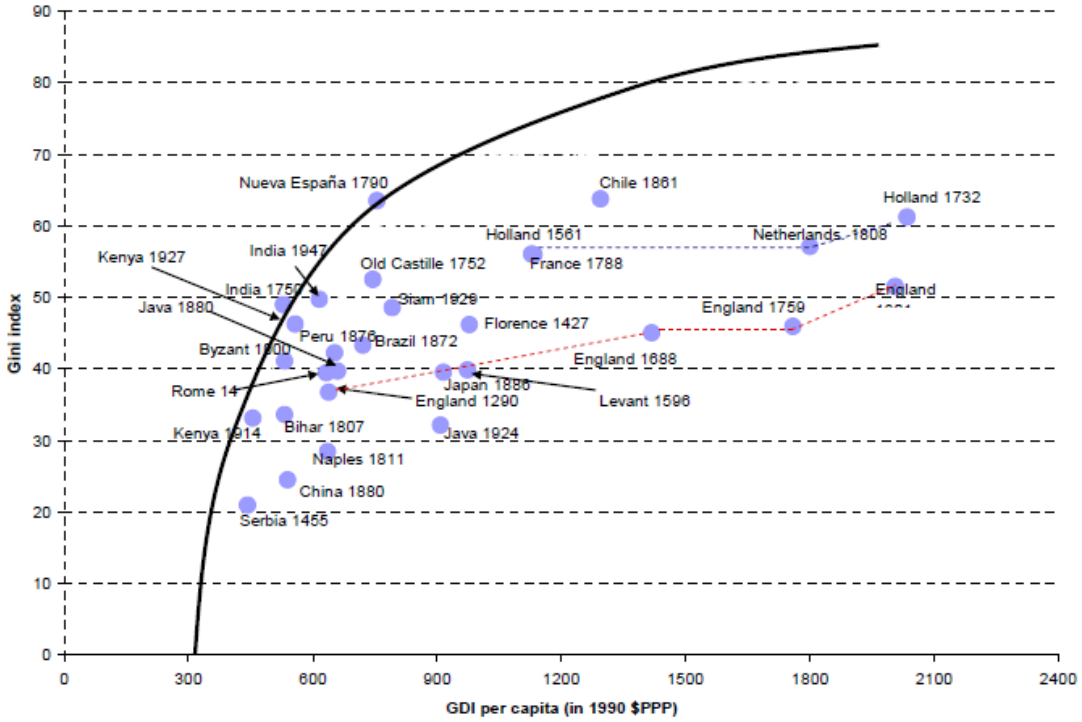


Williamson (2009, 2015): Historically High vs. Commodity Boom during the *Belle Epoque*

Latin American Inequality in History

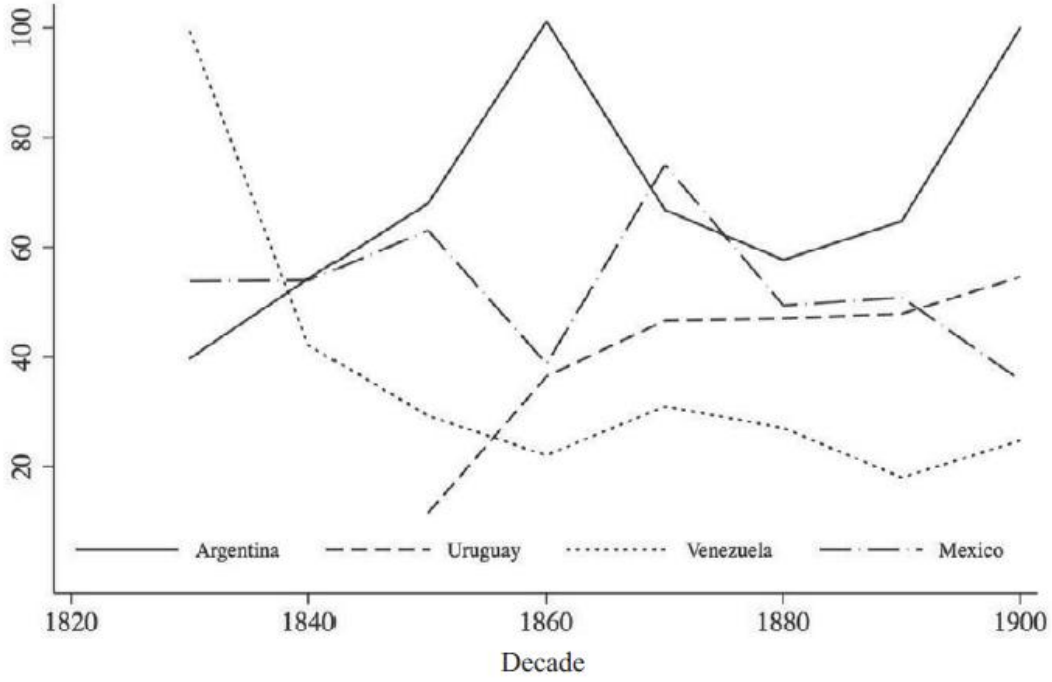


Inequality Possibility Frontier

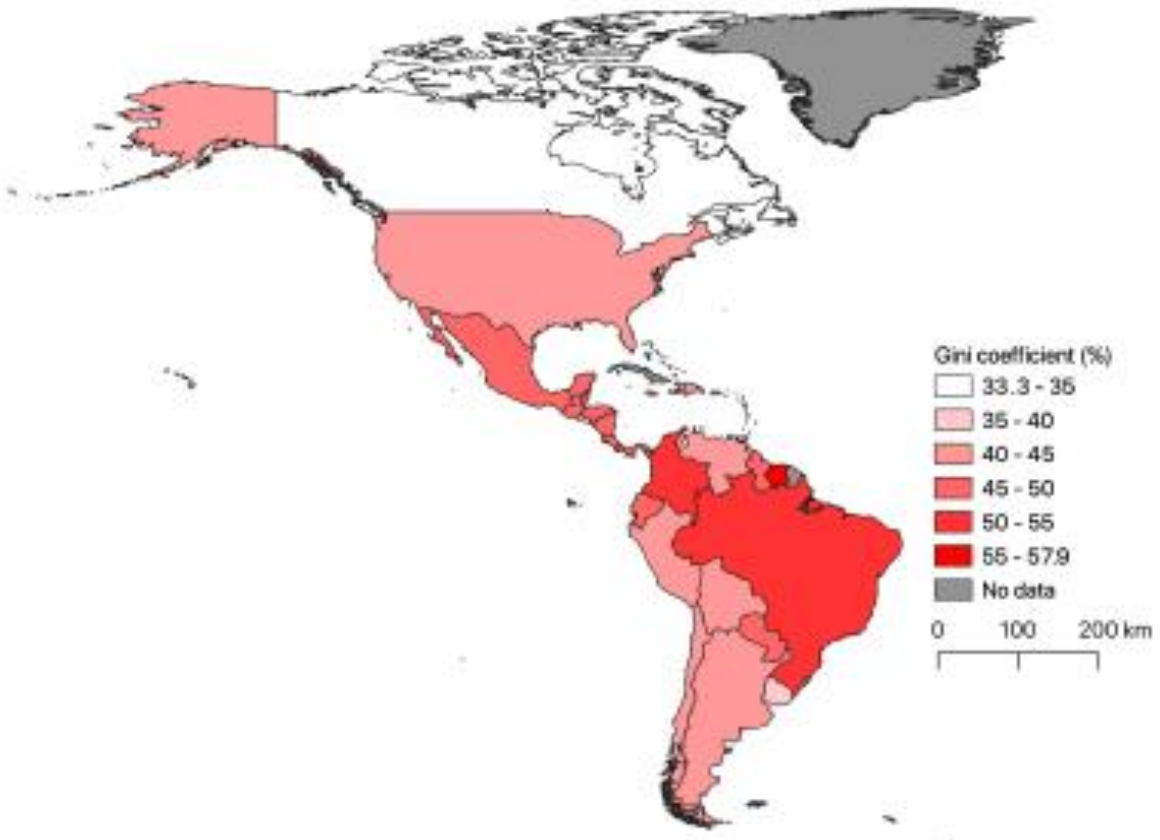


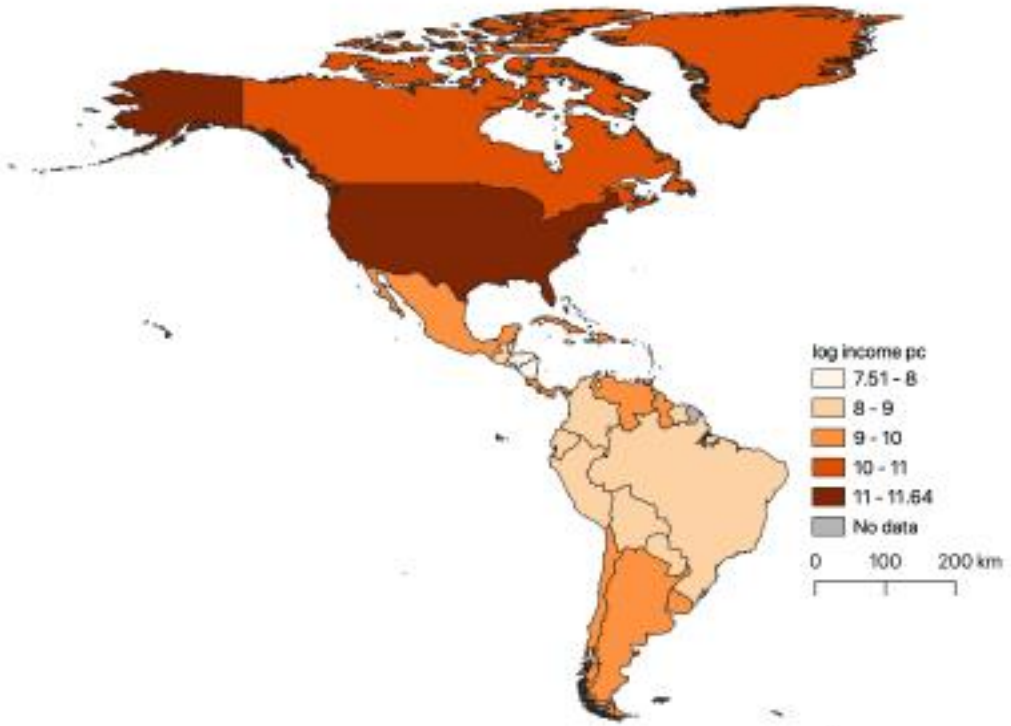
Post-independence Latin America

- Independence: revolutionary change / Persistence?
- Suffrage extension: E&S
- Coatsworth (2008): not enough?
- Trade and commodity booms (Arroyo Abad, 2013)
- Financing education (Musacchio et al., 2014)
- Church wealth expropriation (Uribe Castro, 2019)



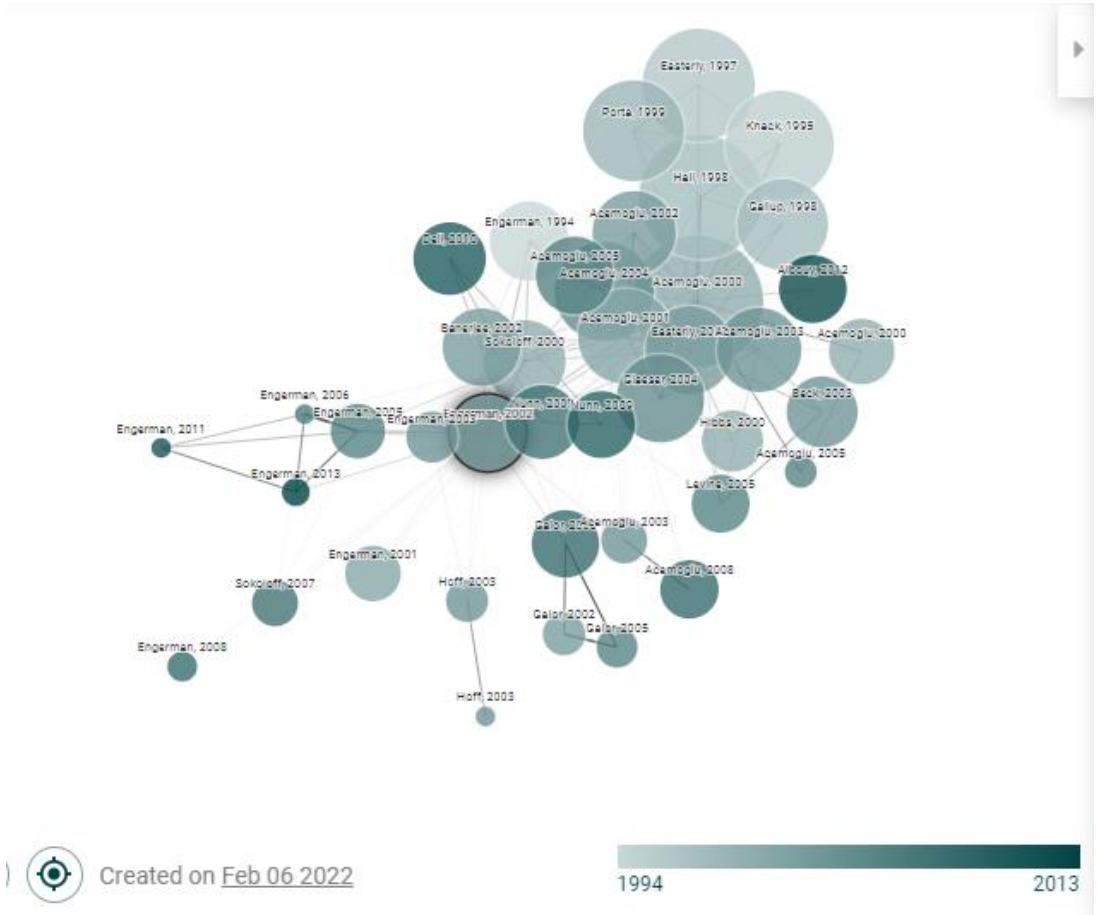
Inequality and Income in the 2000s



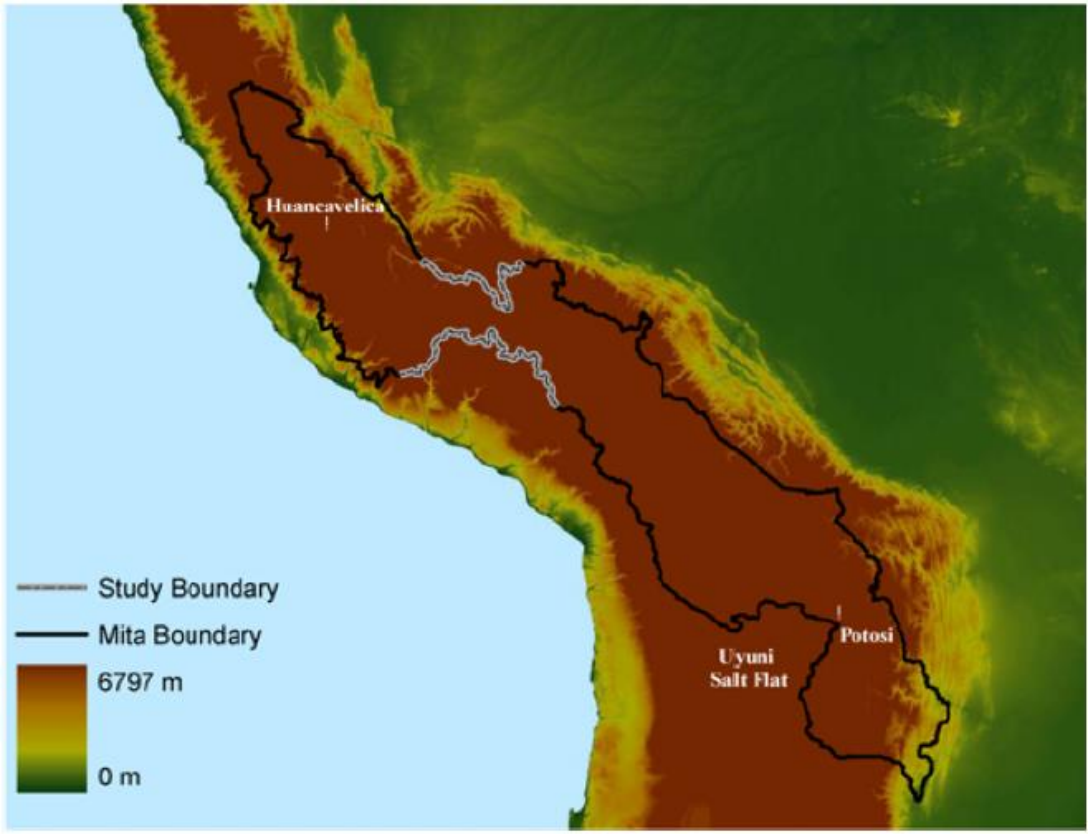


Engerman and Sokoloff (1997, 2000, 2002)

- Natural Endowments
  - Americas
  - Qualitative
- Endowments →Institutions → Economic Performance
- Through inequality
  - Higher inequality → Lower growth (?)
  - Slavery
  - Caribbean
- Acemoglu, Johnson and Robinson (2001, 2002)



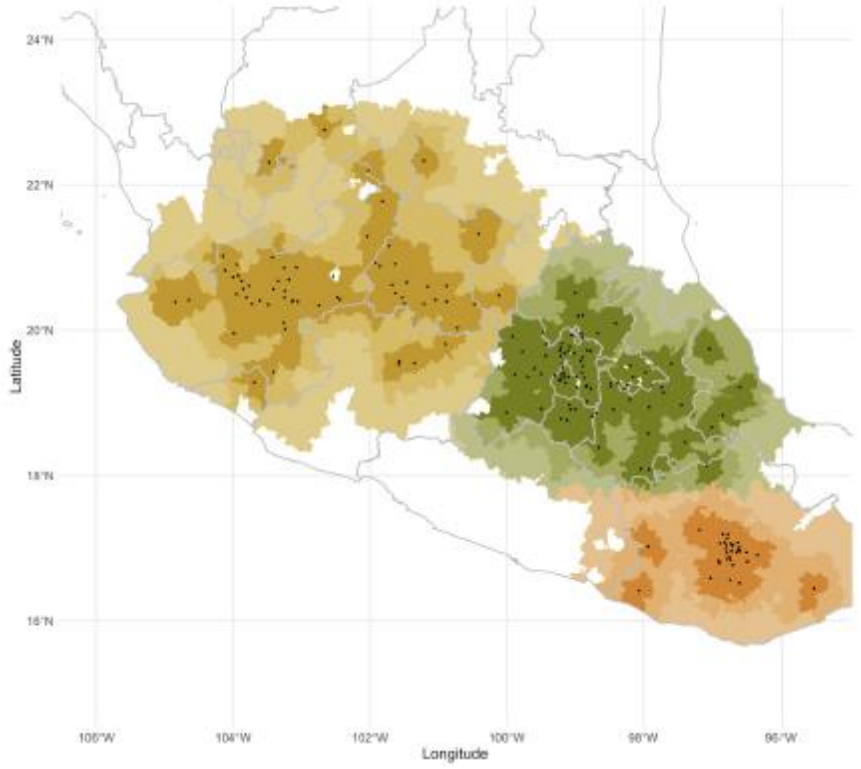
Melissa Dell (2010)



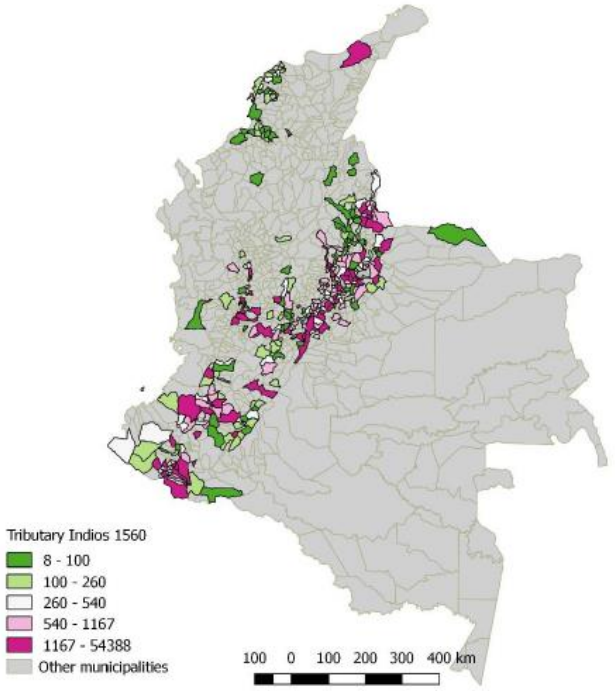
- Long-term impact of the *mita* labor system on economic development in Peru / Bolivia
- Using a geographic regression discontinuity design
- Negative effects on consumption and higher stunting
- Through a decrease in *haciendas*, public goods and sectoral composition

Colonial Institutions: *Haciendas, Encomiendas* and *Conciertos* in Mexico, Colombia and Ecuador

Mexico: Arias and Flores (2021)



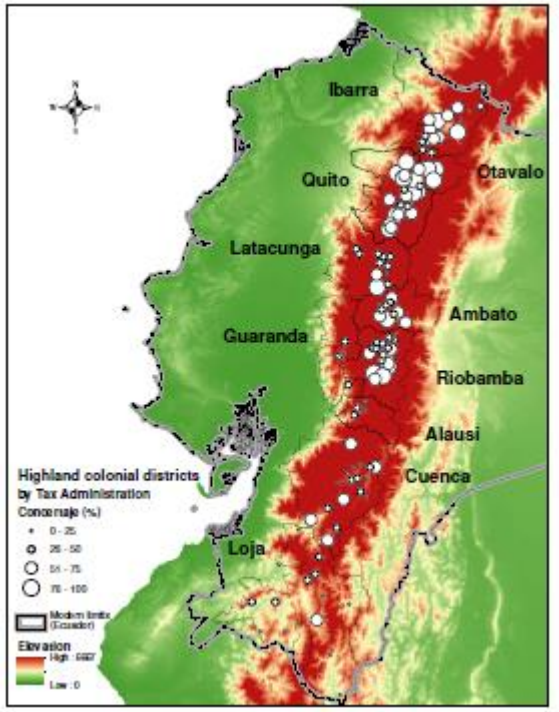
Colombia: Faguet et al. (2017)



a) Tributary *indios* distribution

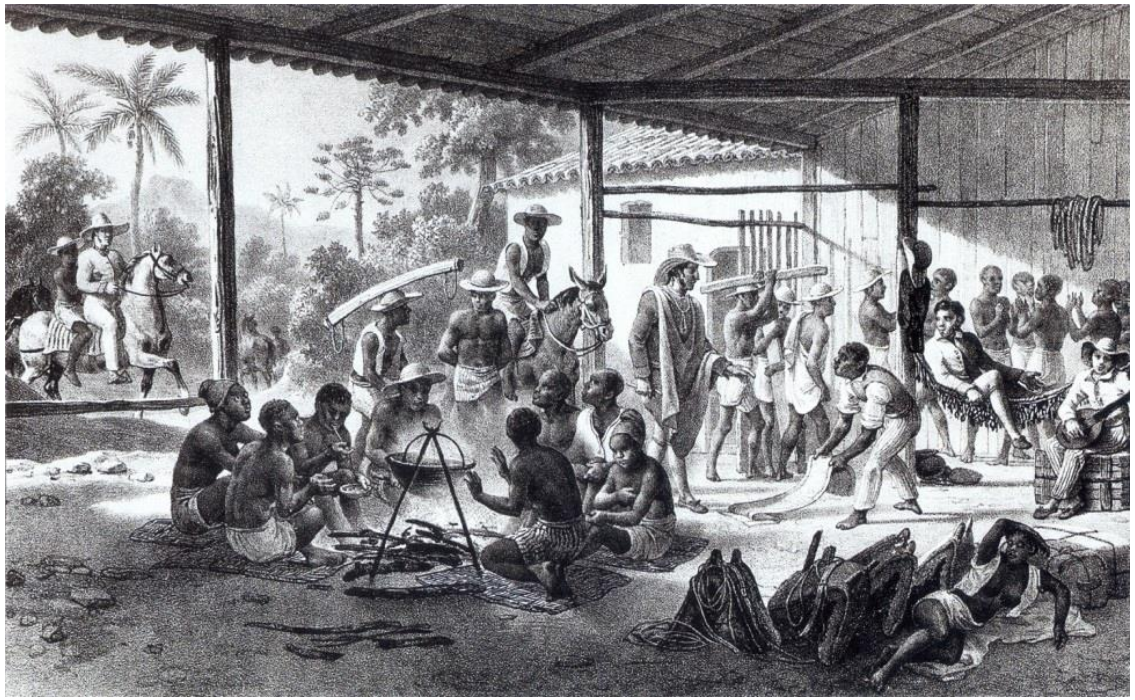
Ecuador: Rivadeneira (2021)

Figure 3: Map of the studied region with its Colonial Tax Administrations.

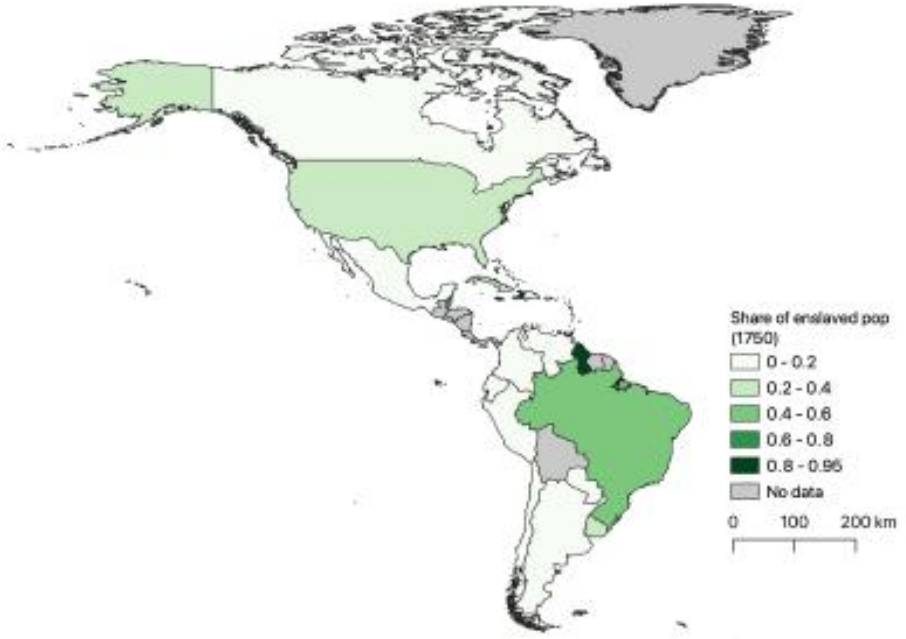


Natural Endowments and Slavery

Plantations in Brazil

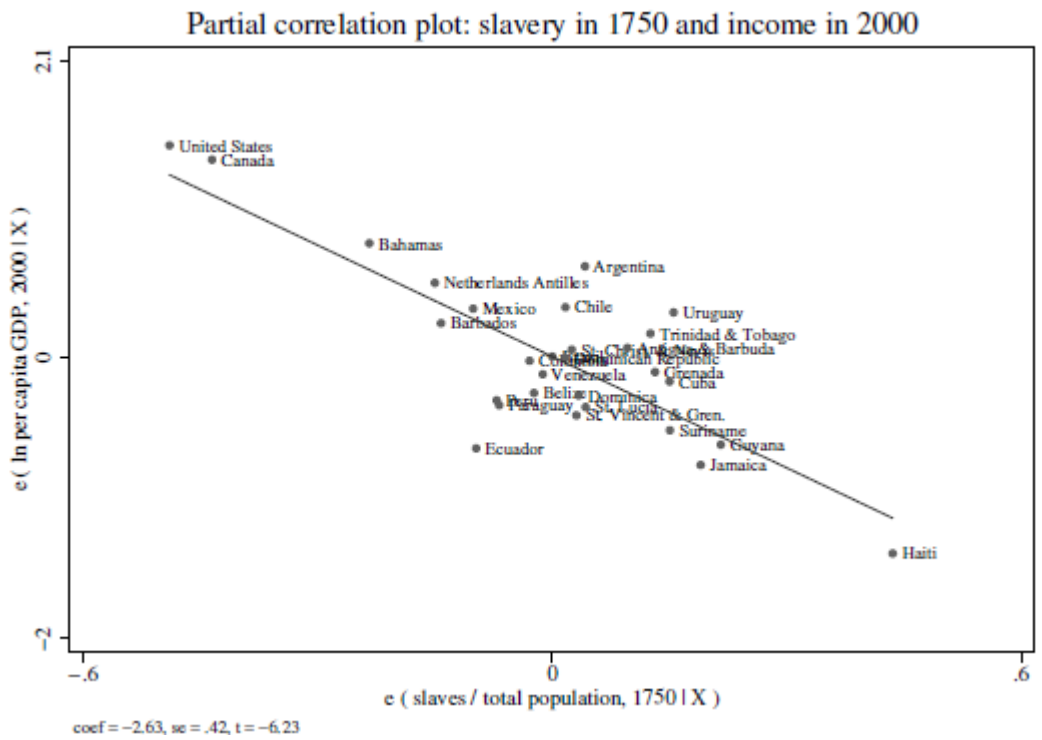


Slavery in the 18th Century

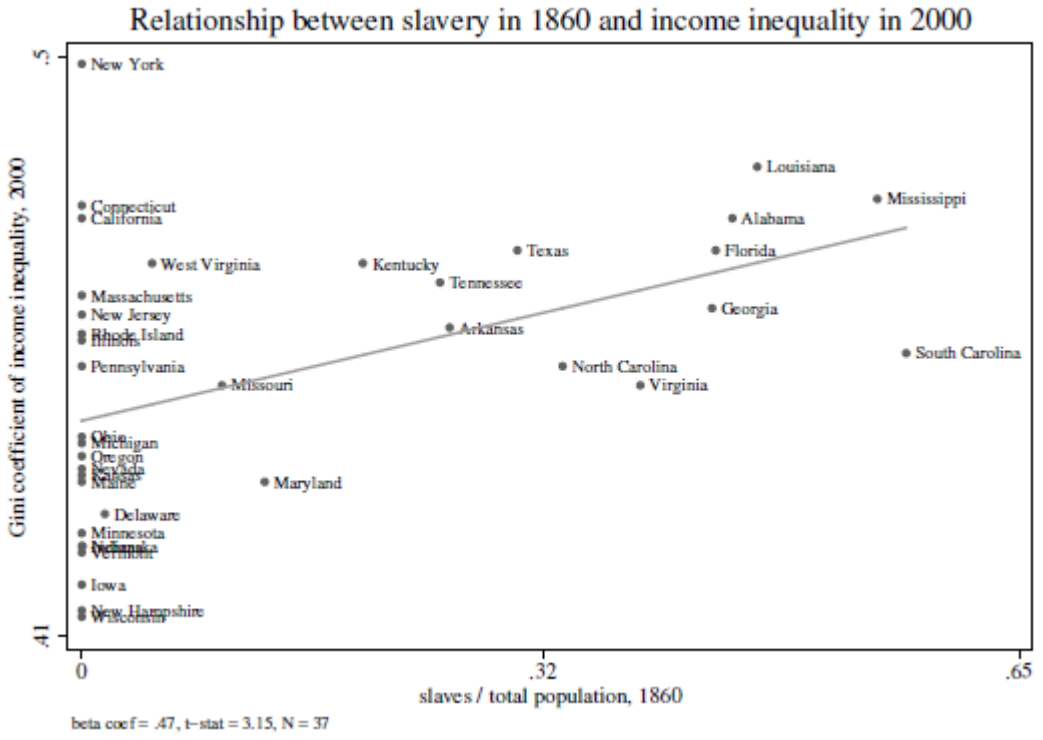


Nunn (2007): Slavery, Inequality and Income, testing the Engerman and Sokoloff Hypothesis

Country Level

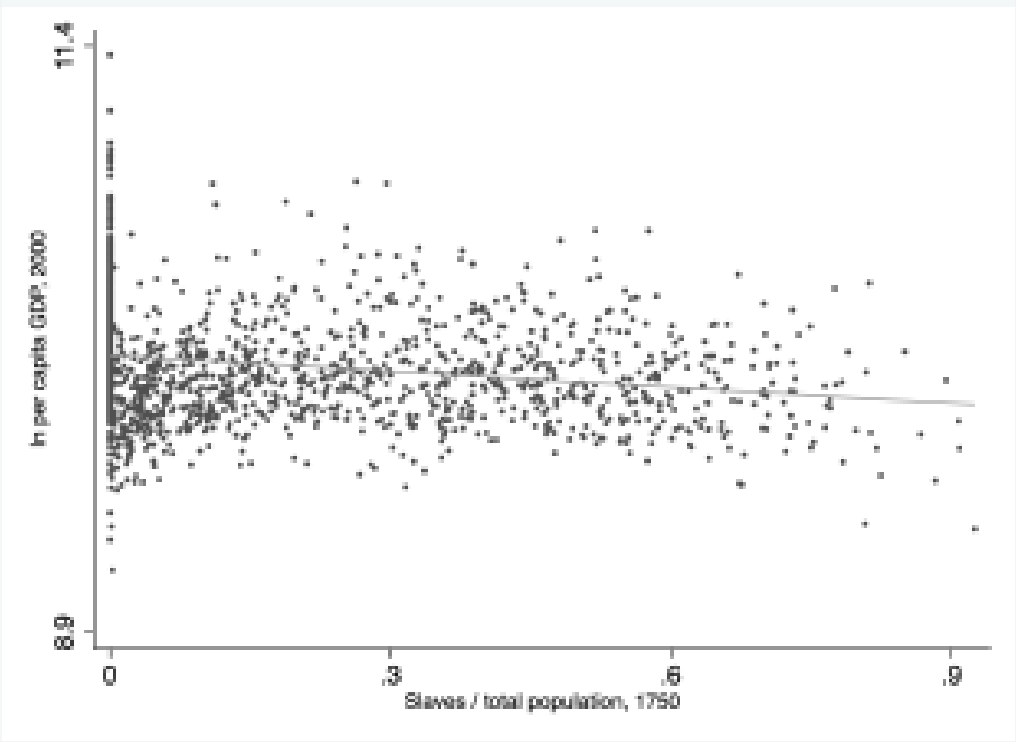


State level: US

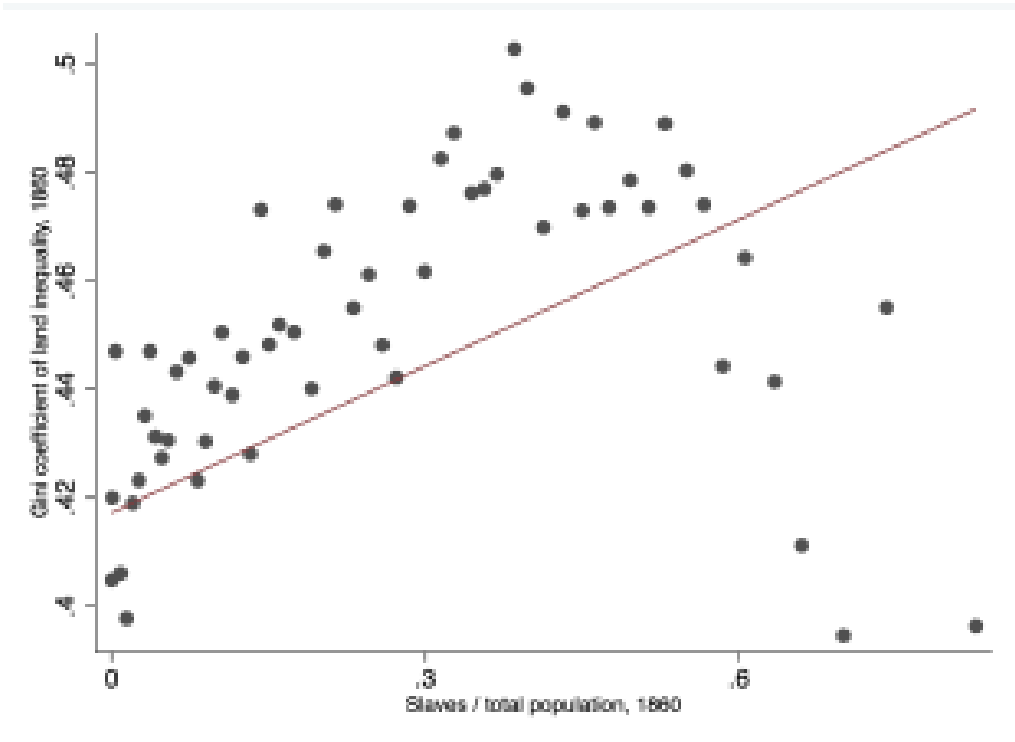


Nunn (2007), Bertocchi and Dimico (2014) at the County level, along with Human Capital

Income: County Level

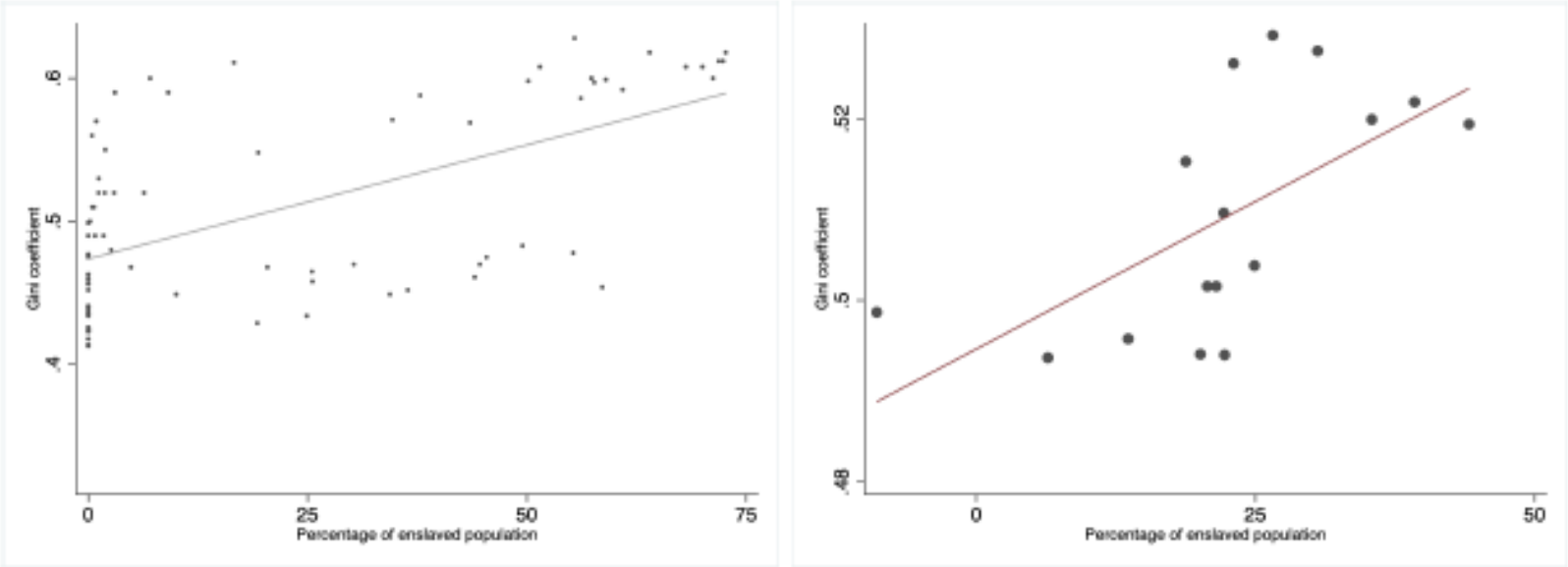


Inequality: County Level



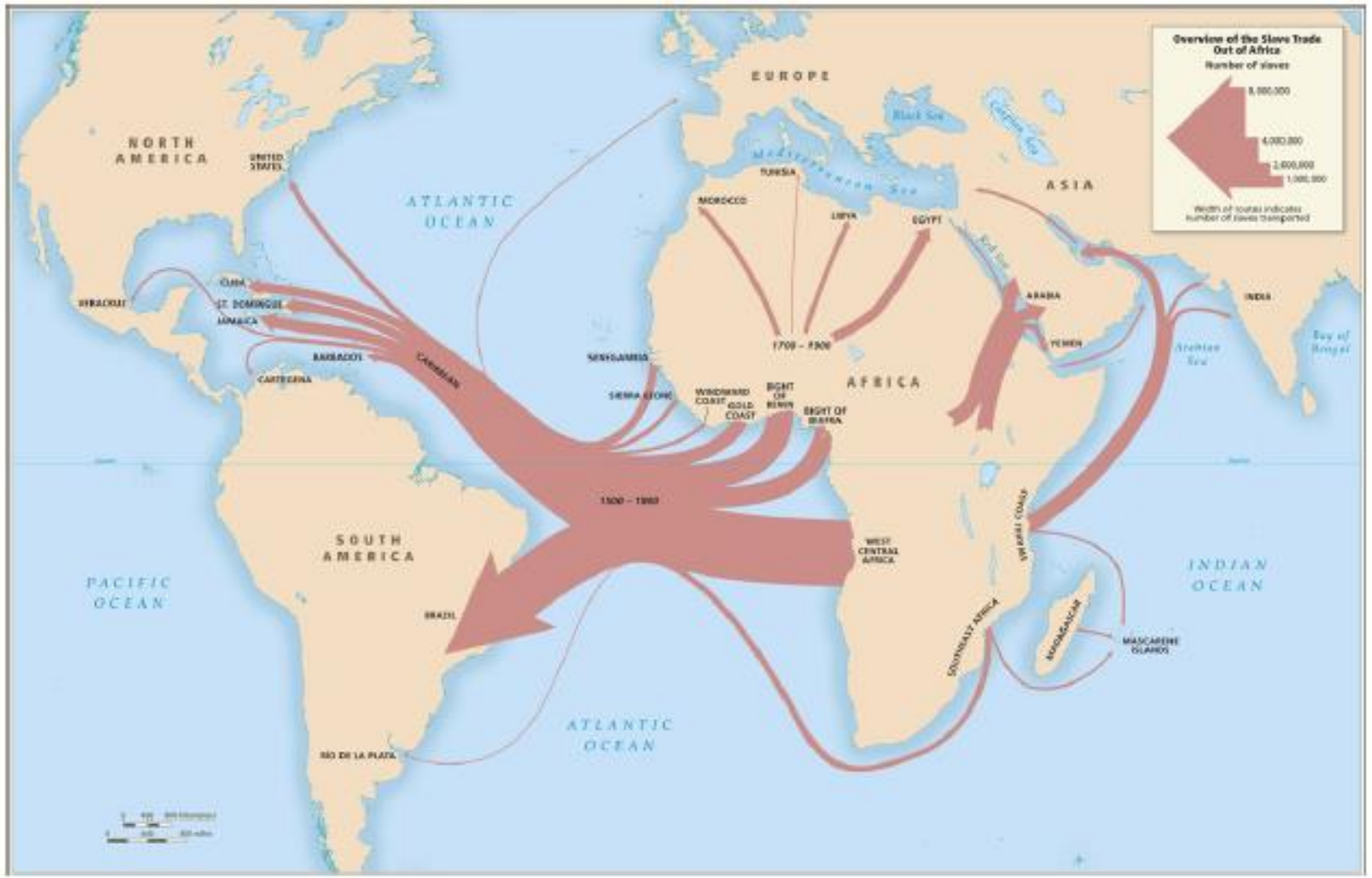
Maloney and Valencia (2016): Slavery and Inequality, sub-national level

Figure 4: Slavery and Inequality (GINI)

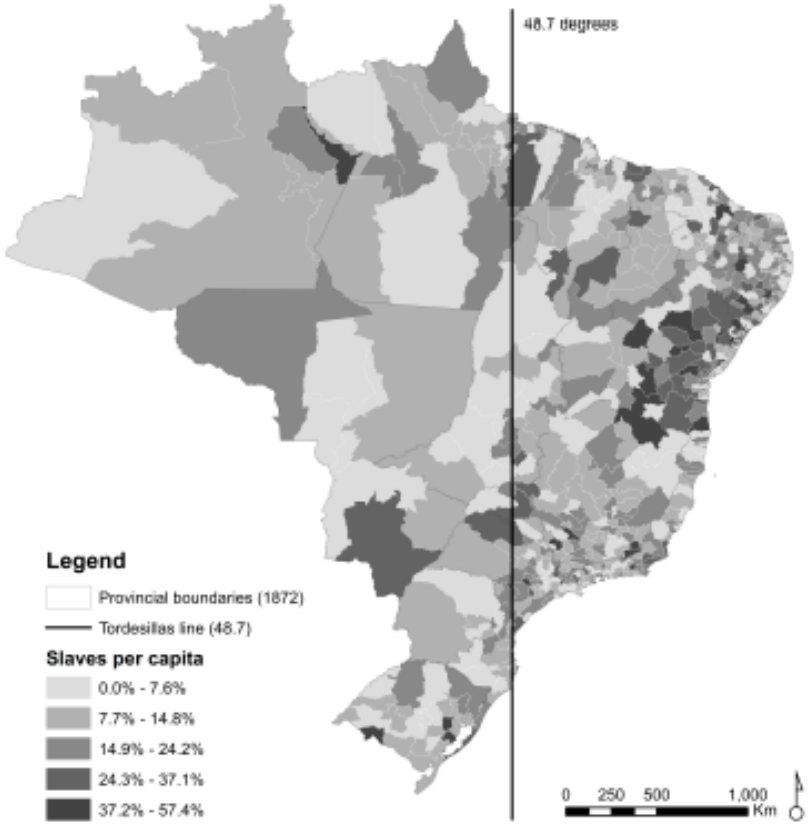


(a) Raw correlation (b) Including controls (column 3)

International Slavery Flows 1500-1860 (Eltis and Richardson, 2010)

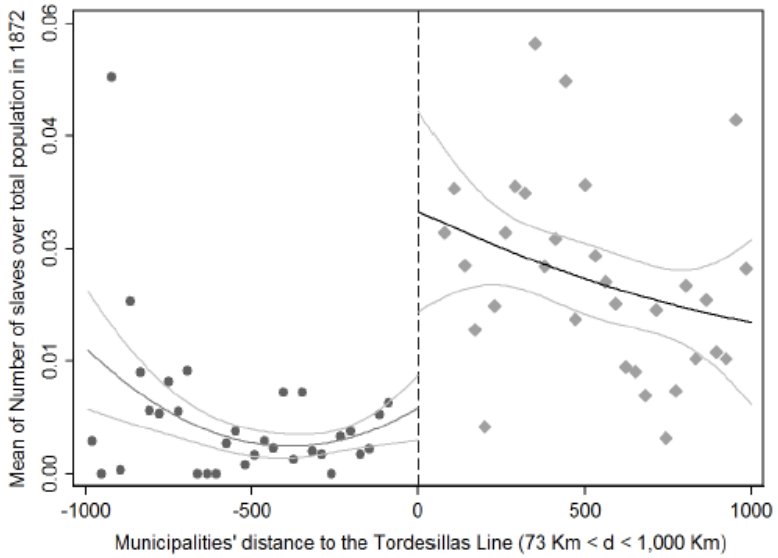


Laudares and Valencia (2022): Donut RD for Tordesillas line on Slavery

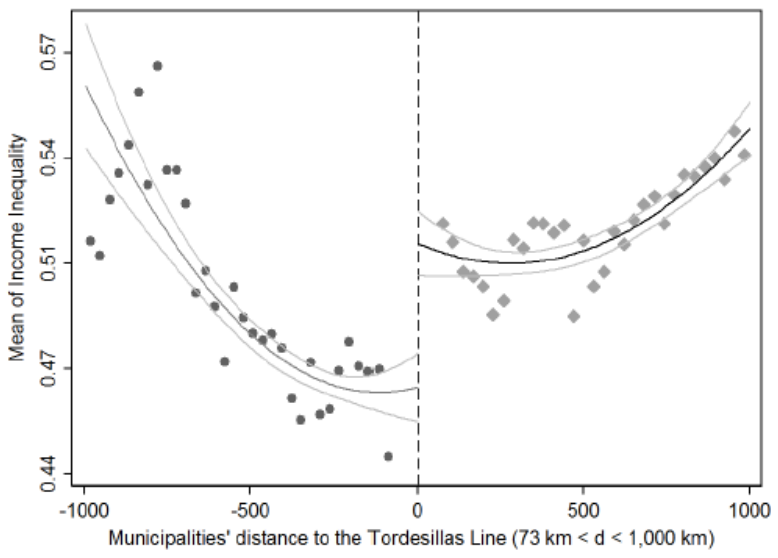


Laudares and Valencia (2022): Donut RD for Tordesillas line on Slavery and Inequality

Figure: Donut RD plots - Relative number of slaves (1872) and current income inequality (2010)

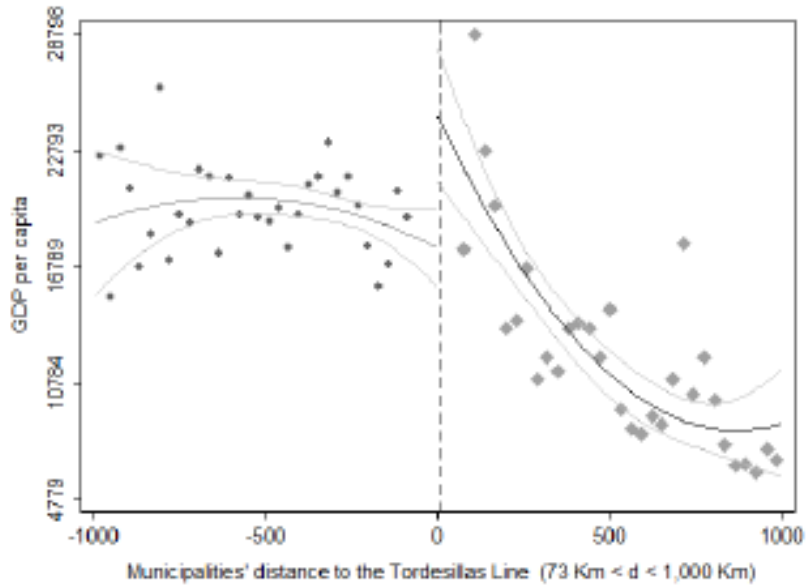


(a) Slaves/Total Population (1872)

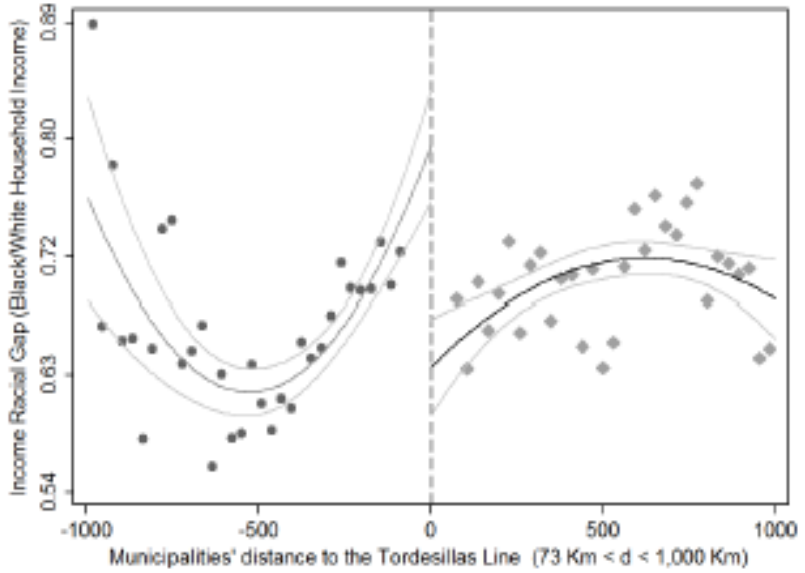


(b) Income Inequality (2010)

Laudares and Valencia (2022): Donut RD for Tordesillas line on Slavery and Income

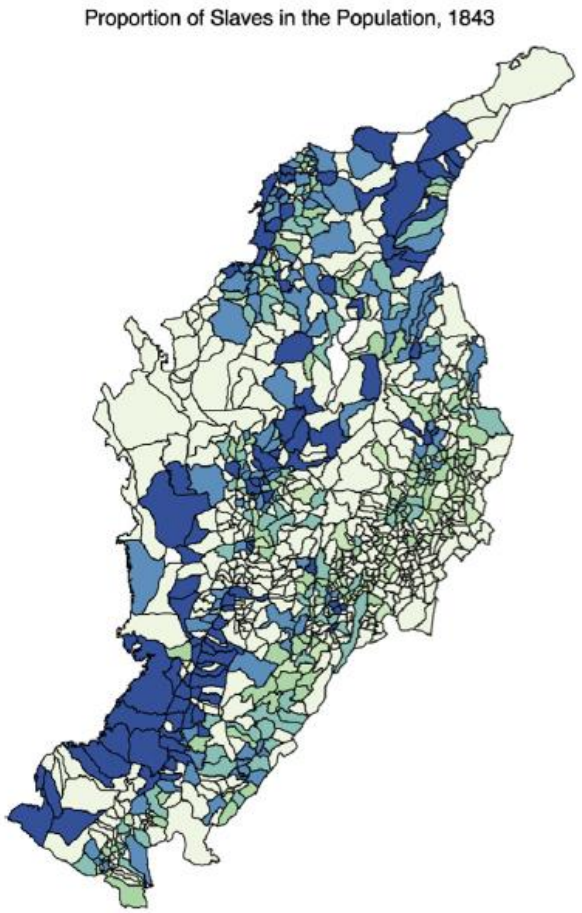


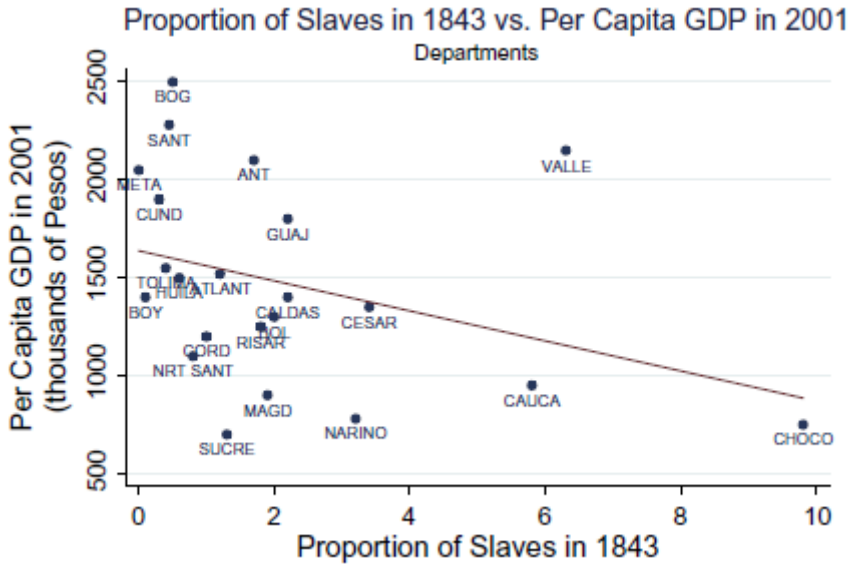
(a) GDP per capita (2012)



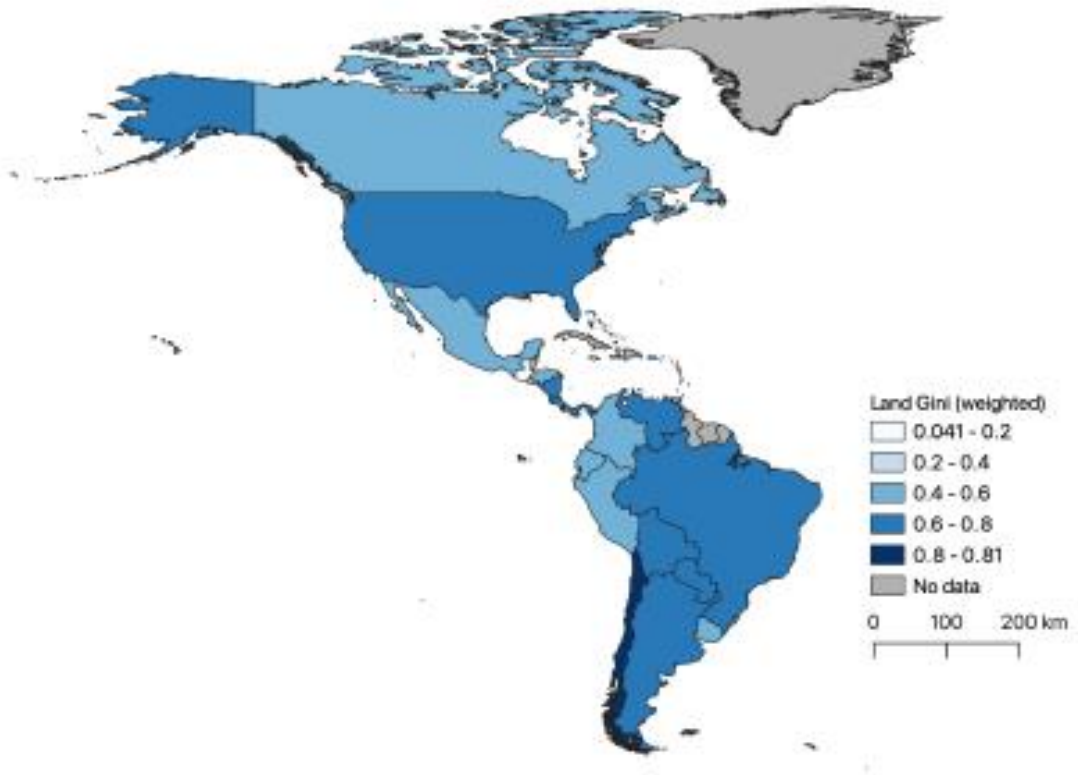
(b) Income Racial Imbalance (Black / White, 2010)

Acemoglu et al. (2012): Slavery and long-run Development in Colombia





Land and Land Reform



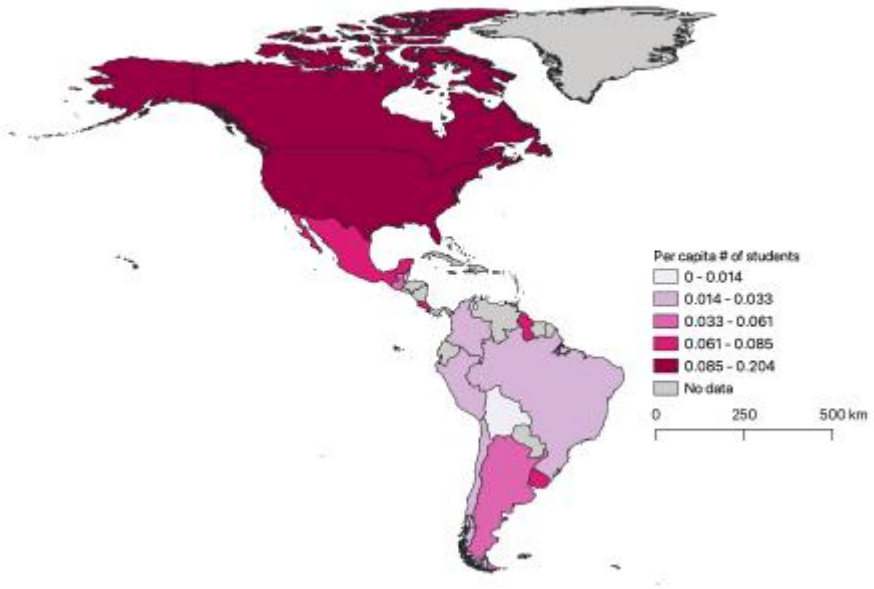
- Dell (2012): Mexican Revolution, land redistribution and path dependence in development
- Montero (2021): Cooperative Property rights in El Salvador
- Albertus (2019): land reform reduced subsequent conflict in Peru
- Albertus et al. (2020): land reform decreased human capital formation in Peru, by lowering demand

Land Reform II

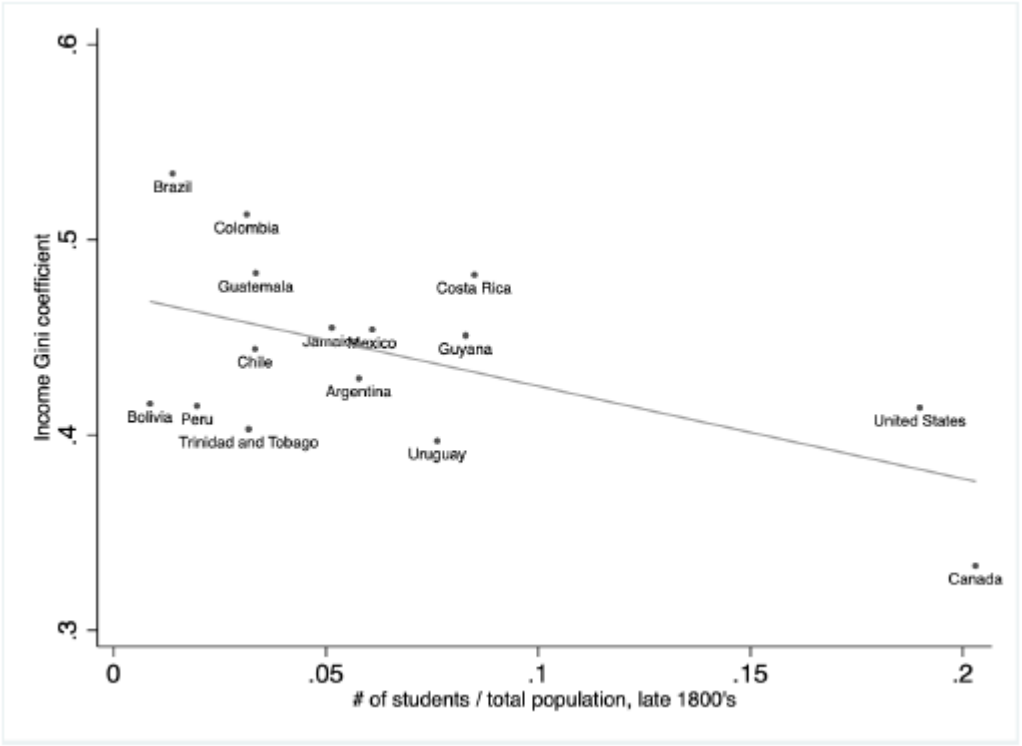
- Albertus (2015): autocracy and redistribution in Latin America
- Galán (2020): land reform and intergenerational mobility in Colombia
- Lopez Uribe (2017): land reform as a strategic political choice in Colombia
- Lillo Bustos (2018): land redistribution, crop choice, reform and counter-reform in Chile
- Jaimovich and Toledo (2018): failed land reform and conflict with the Mapuches in Chile
- Homestead Act in the US: Mattheis and Raz (2021), Smith (2021), Lillo-Bustos (2020). Redistribution, Voting and Clientelism in Italy (Caprettini et al., 2021). Jäger for Germany and Gobbi for France

Education: Mariscal and Sokoloff (2000)

Education in the XIXth Century

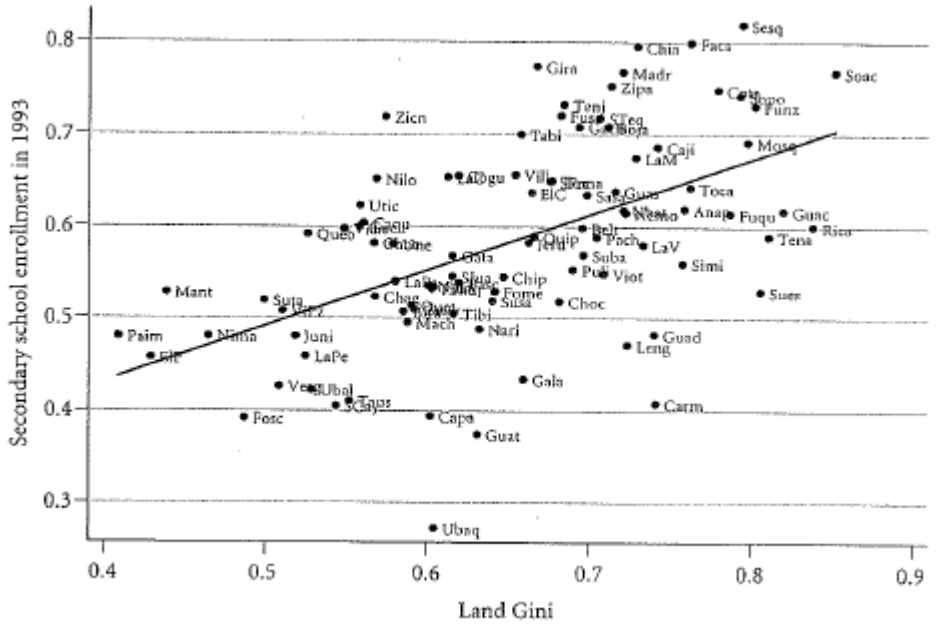


Early Education and Inequality

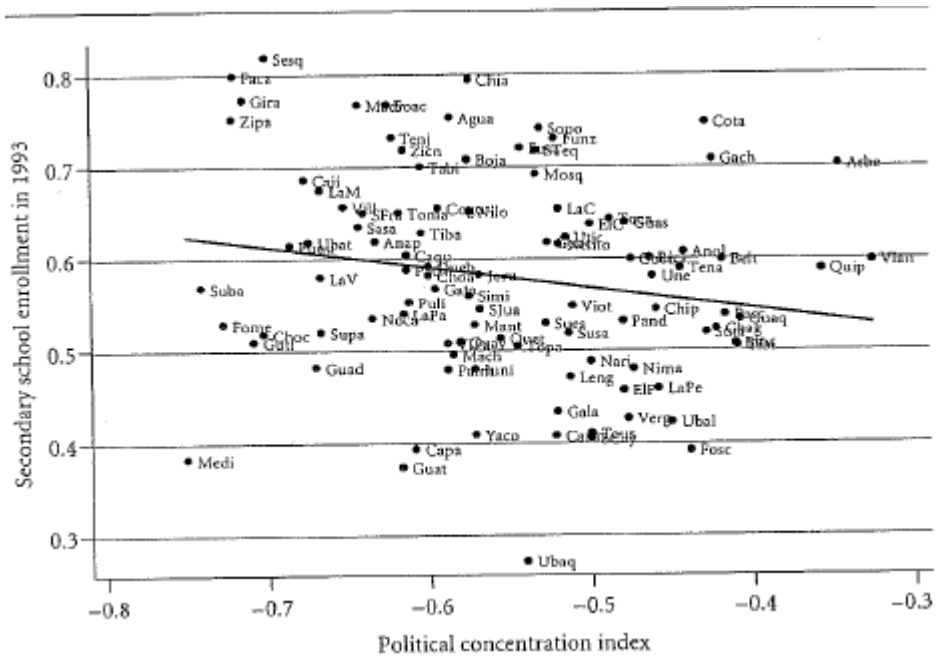


Acemoglu et al. (2007): Cundinamarca, Colombia, Economic vs. Political Inequality

Economic Inequality and Schooling



Political Inequality and Schooling



Missions and Development in Paraguay: Valencia Caicedo (2019)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Illiteracy		Ln Income		Income	Brazil	
	Argentina, Brazil and Paraguay		Brazil and Paraguay		Inequality	Mortality	Mortality
	Spillovers	Dist. Capital	Spillovers	Dist. Capital	BRA & PAR	Under 5	Infant
Jesuit Mission Distance	0.0270***	0.0220***	-0.00371***	-0.00352***	0.0603***	0.0369***	0.0367***
	(0.0071)	(0.006)	(0.0007)	(0.001)	(0.023)	(0.013)	(0.013)
	{0.0070}	{0.006}	{0.0007}	{0.001}	{0.023}	0.013	0.013
Distance to Capital		0.00989***		-0.0001			
		(0.003)		(0.001)			
		0.003		0.001			
Franciscan Mission Distance					-0.126***	0.013	0.022
					0.038	0.028	0.028
					{0.038}	0.028	0.028
GEO Controls	YES	YES	YES	YES	YES	YES	YES
Fixed Effects	NO	YES	NO	YES	YES	NO	NO
Observations	526	548	492	506	506	466	466
R-squared	0.091	0.092	0.859	0.879	0.448	0.107	0.109

Engineers, Innovation and Inequality in the US: Maloney and Valencia Caicedo (2022)

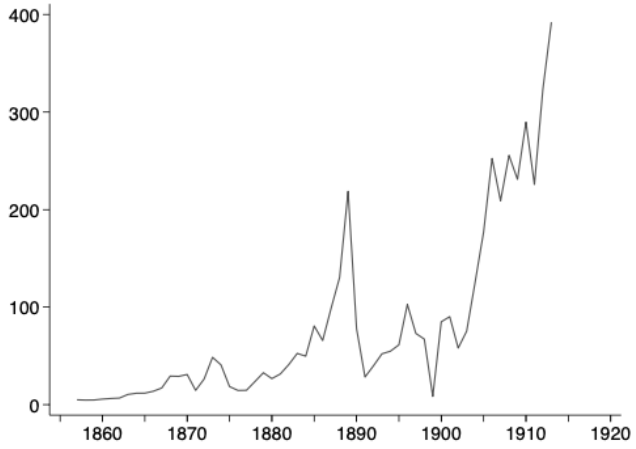
Dependent variable: Gini coefficient	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of engineers per 1000 inhabitants	-0.00698	-0.00339	-0.0125	0.0112	-0.00909	-0.0293	-0.0171	-0.0118
	(0.0234)	(0.0233)	(0.0281)	(0.0273)	(0.0275)	(0.0270)	(0.0260)	(0.0260)
# of patents per 1000 inhabitants	0.00280*	0.00339*	0.00863***	0.0101***	0.00863***	0.00829***	0.00849***	0.00862***
	(0.00153)	(0.00184)	(0.00295)	(0.00273)	(0.00287)	(0.00266)	(0.00277)	(0.00255)
Dist. to land grant colleges	0.00354**	0.00312*	0.00355**	0.00367***	0.00339**	0.00342**	0.00363**	0.00283**
	(0.00171)	(0.00167)	(0.00133)	(0.00133)	(0.00134)	(0.00133)	(0.00137)	(0.00127)
Controls:								
Population:	X	X	✓	✓	✓	✓	✓	✓
Education:	X	X	X	✓	✓	X	✓	✓
Tertiary education:	X	X	X	X	X	✓	✓	✓
State FE :	X	X	X	X	X	X	X	✓

All regressions have 1,904 observations except for column 1 that has 2,380. Robust standard errors clustered at the state level in parenthesis. Coefficients in Panel A are to be interpreted "per 1000".

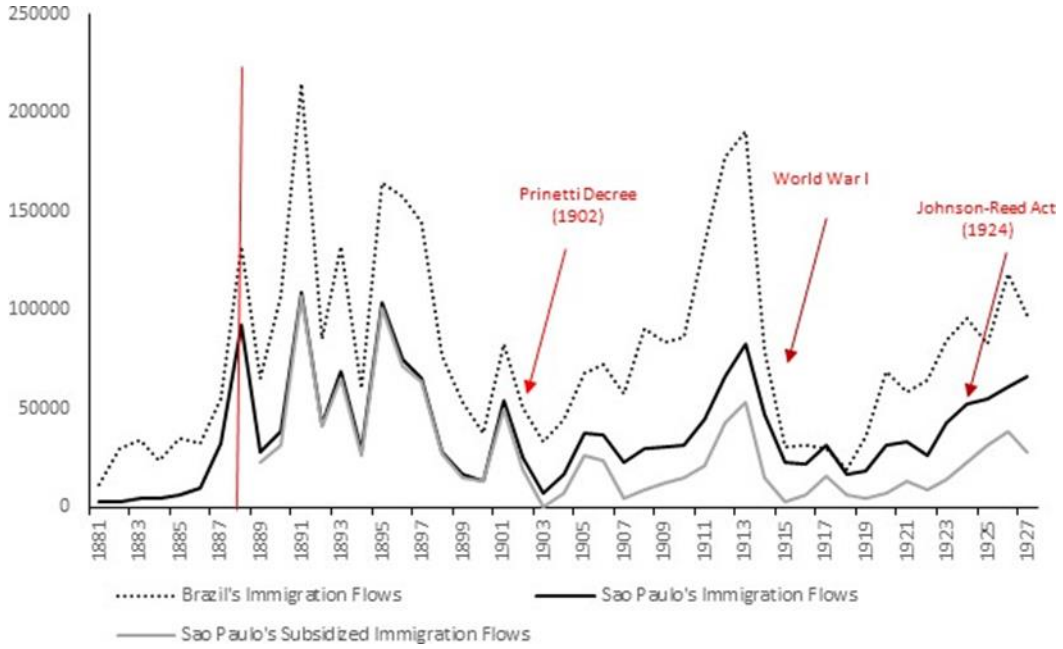
International Migration: Argentina and Brazil

Droller, Fiszbein and Pérez (2023)

FIGURE 1: YEARLY NUMBER OF IMMIGRANT ARRIVALS TO ARGENTINA (IN THOUSANDS)

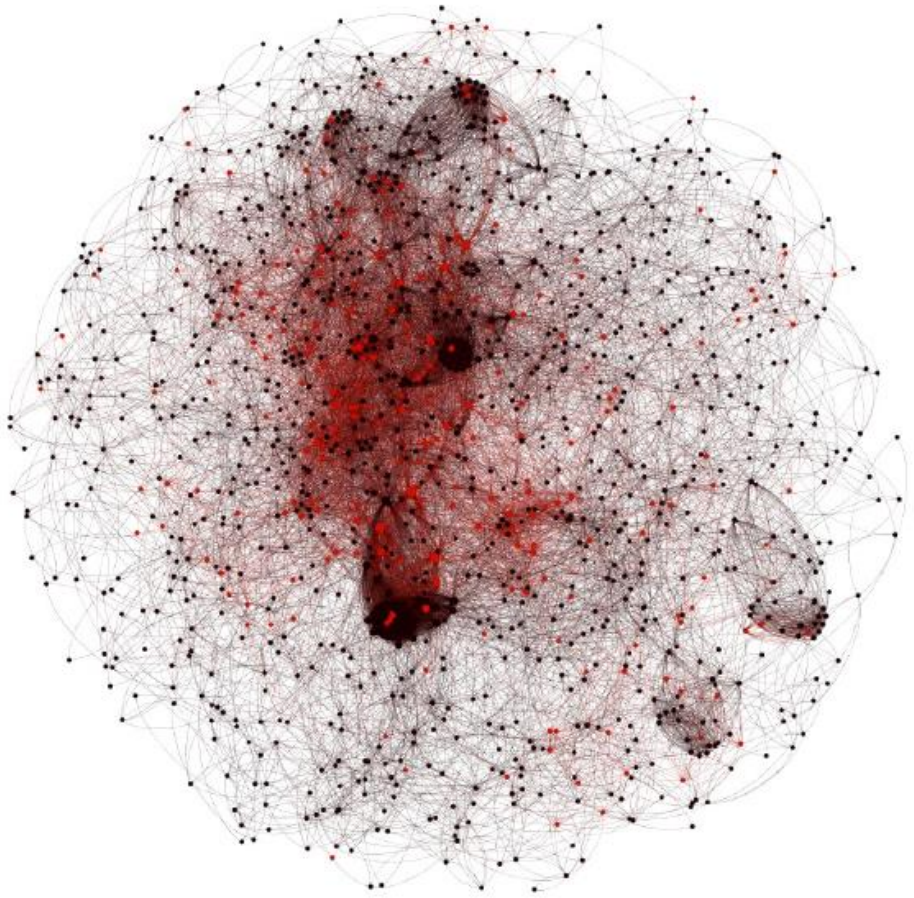


Lanza, Maniar and Musacchio (2023)



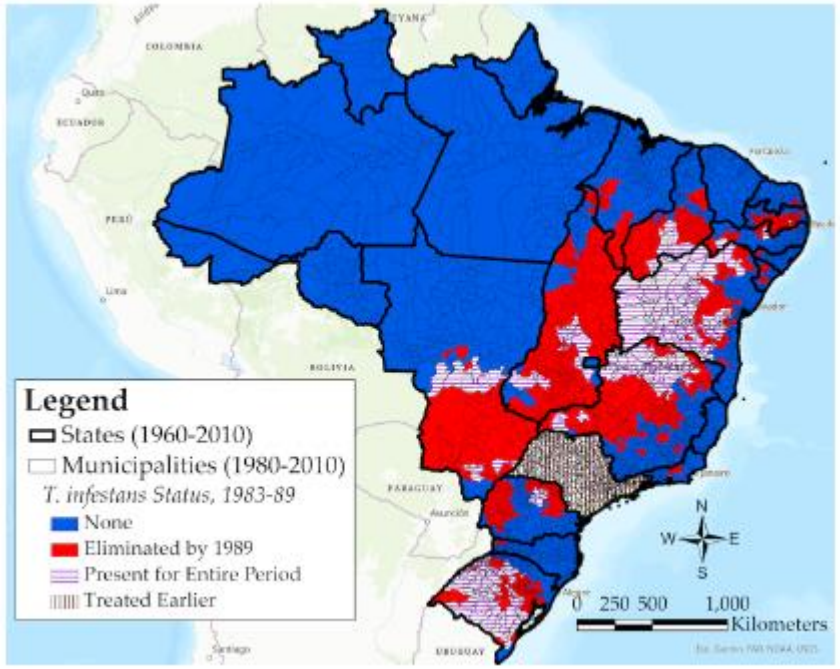
Elite Persistence: Colombia and Venezuela, Mejia (2023)

- Networks of banking and manufacturing elite in Antioquia, Colombia (Mejia, 2022) following Hirschman (1968) and Twinam (1982)
- Conflict and democracy in Colombia (Ferguson and Vargas, 2022)
- Intra-elite conflict in Venezuela (Kronick and Rodriguez, 2022)

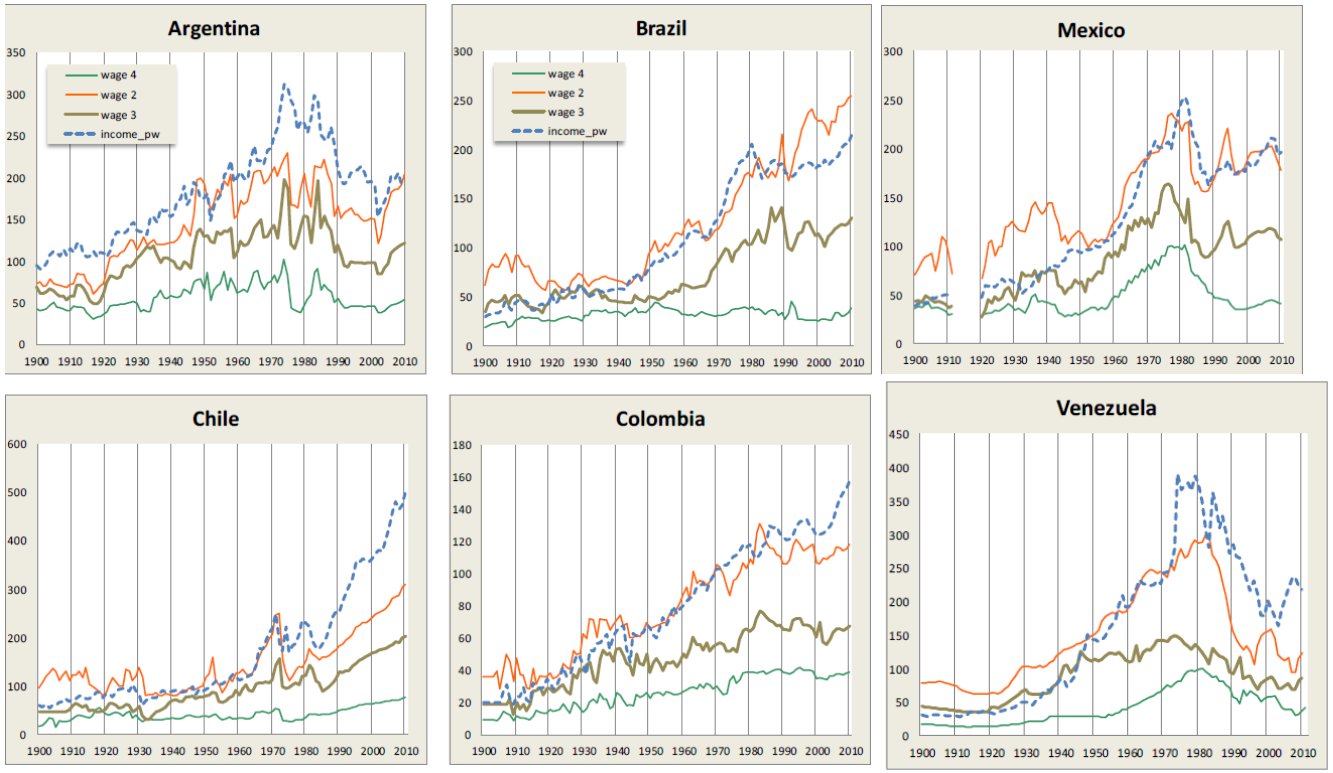


Health Inequality and Wages

Chagas in Brazil: Schneider and Montero (2022)



Wage Dispersion in Latin America: Astorga (2015)



Extensions and Replications

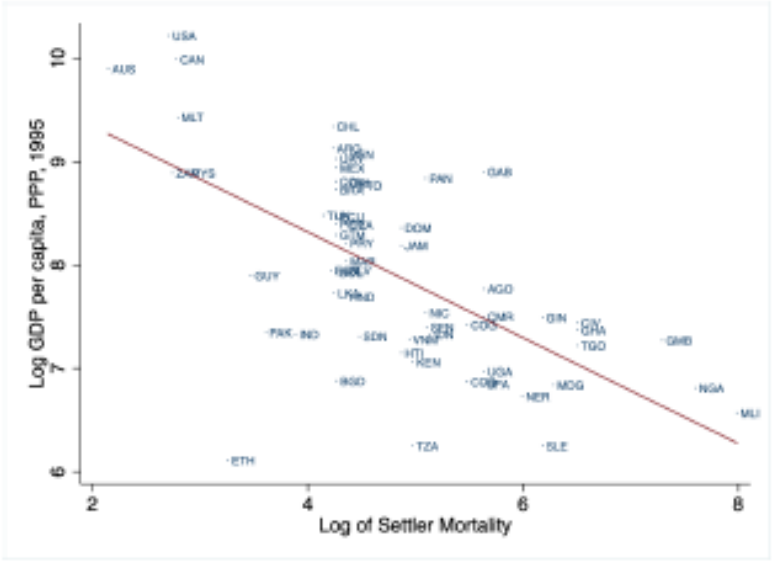
- Acemoglu, Johnson and Robinson (2001): Inequality instead of income, national level, focusing on Latin America
- Bruhn and Gallego (2012): inequality and institutions, sub-national
- Rocha, Ferraz and Soares (2017): inequality and settlements instead of literacy and years of schooling, Sao Paulo
- Maloney and Valencia (2016): inequality and slavery, population density and inequality, sub-national

Settler Mortality, Income and Inequality

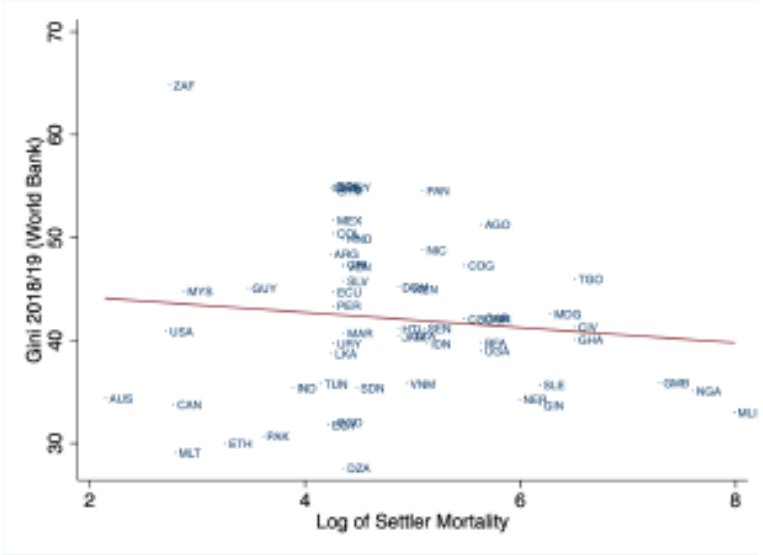
AJR 2001

Figure 1: Log settler mortality and inequality

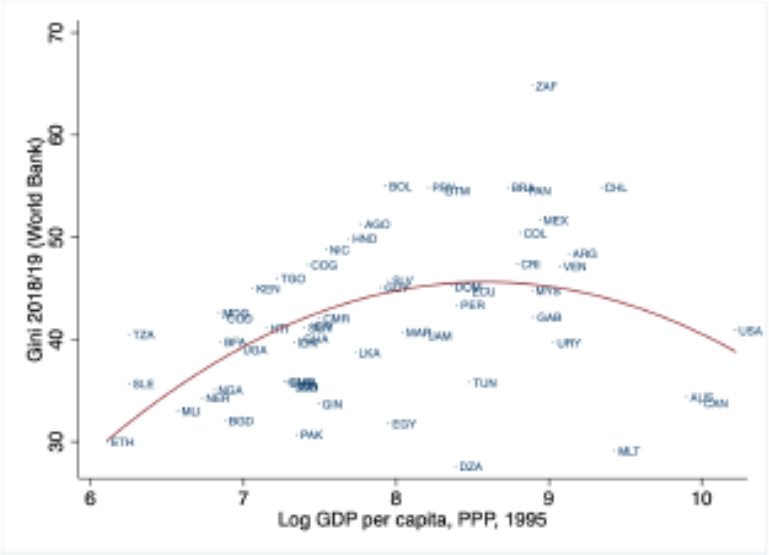
Kuznets



(a) AJR original figure (replicated)



(b) Log settler mortality & GINI coefficient



(c) Income on Inequality (quadratic)

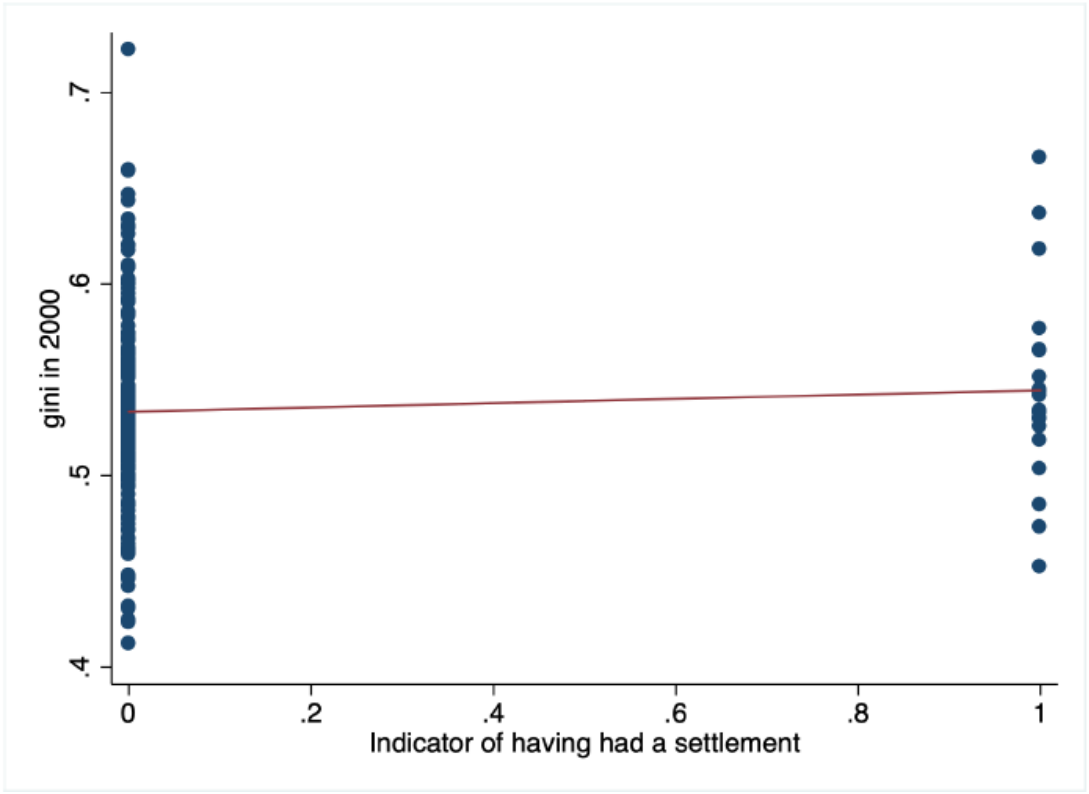
Good, Bad and Ugly Institutions and Inequality: Bruhn and Gallego (2012)

Table 4: "Good, Bad and Ugly" Colonial Activities & Inequality

Dependent variable: log GINI coefficient	(1)	(2)	(3)	(4)	(5)
Good activities dummy	0.00567	0.00265	0.00167	0.000608	0.00306
	(0.0186)	(0.0154)	(0.0145)	(0.0144)	(0.0144)
Bad activities dummy	0.0409*	0.0351**	0.0328*	0.0168	
	(0.0241)	(0.0170)	(0.0178)	(0.0181)	
Ugly activities dummy	0.0156	0.00835	0.00551	-0.00542	-0.00718
	(0.0256)	(0.0191)	(0.0199)	(0.0201)	(0.0208)
Observations	268	268	268	268	268
R-squared	0.724	0.725	0.728	0.738	0.740
Controls:					
Pre-colonial population density:	X	✓	✓	✓	✓
Weather:	X	X	✓	✓	✓
Geographical:	X	X	X	✓	✓
Mining & Plantation dummies :	X	X	X	X	✓

All regressions include country fixed effects and standard errors clustered at the pre-colonial population dummy level. Weather controls are: average temperature and total rainfall (linear and squared). Geographical controls are altitude (linear and squared) and a dummy of being landlocked.

Migration and Inequality in Brazil: Ferraz et al. (2007)



Dependent variable: GINI coefficient				
	(1)	(2)	(3)	(4)
Settlement indicator	0.0112	0.00444	0.0113	0.00601
	(0.0115)	(0.0116)	(0.0119)	(0.0114)
Observations	200	200	200	200
R-squared	0.005	0.186	0.048	0.200
Controls:				
Geography	*X*	✓	*X*	✓
Historic	*X*	*X*	✓	✓

Robust standard errors are in brackets, clustered at the 1872 census boundaries. All columns report the results from OLS regressions. Geographic controls are (distance to the capital, latitude, longitude, elevation, and indicators for different types of soil). Historic controls are (presence of railway, share of foreigners, share of slaves, share of literate population, share of children attending school, population density, total number of workers in public administration and legal professions relative to total population, share of workers in agriculture, manufacturing, services, and retail computed over total number of occupied workers) all measured in 1872. All variables are computed according to the 1920 census boundaries.

Maloney and Valencia (2016): Pre-colonial Population Density and Inequality

Income Distribution (Pooled)

	OLS	Between	Within FE	Within FE	Within FE
Log pre-colonial density	0.006	0.003	0.002	−0.002	−0.003
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
Log present density				0.006***	0.003
				(0.00)	(0.00)
Income				−0.03**	−0.02**
				(0.01)	(0.01)
Agriculture					0.02
					(0.01)
Rivers					−0.006
					(0.01)
Distance to coast					−0.02
					(0.06)
Temperature					0.002*
					(0.00)
Altitude					0.01**
					(0.00)
Rainfall					0.003
					(0.01)
Ruggedness					0.0002
					(0.00)
Malaria					−0.004
					(0.00)
Constant	0.5***	0.5***	0.5***	0.7***	0.7***
	(0.03)	(0.05)	(0.01)	(0.12)	(0.10)
N	260	260	260	260	256
R^2	0.023	−0.091	0.002	0.044	0.061

Maloney and Valencia (2016): Pre-colonial Population Density, Slavery and Income

Current Income and Slavery (Brazil, Colombia and US)

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS
Pre-colonial density	2.9**	1.9	2.6**	5.5***	4.9***
	(1.16)	(1.33)	(1.27)	(1.45)	(1.65)
Brazil	−1.9***	−2.0***	−1.6***	−1.6***	−1.4***
	(0.09)	(0.11)	(0.21)	(0.20)	(0.21)
Colombia	−2.5***	−2.4***	−2.4***	−2.6***	−2.4***
	(0.07)	(0.09)	(0.08)	(0.08)	(0.19)
South	−0.09**	−0.1***	0.2	0.09	0.07
	(0.04)	(0.04)	(0.13)	(0.13)	(0.11)
Slavery			−0.009**	−0.006	− 0.005
			(0.00)	(0.00)	(0.00)
Slavery × population				−0.1**	−0.1***
				(0.05)	(0.05)
Agriculture					−0.2
					(0.17)
Rivers					−0.02
					(0.05)
Distance to coast					0.05
					(0.41)
Temperature					−0.0008
					(0.01)
Altitude					0.06
					(0.08)
Rainfall					−0.03
					(0.03)
Ruggedness					−0.005
					(0.01)
Malaria					−0.06
					(0.04)
Constant	10.7***	10.7***	10.7***	10.7***	10.9***
	(0.02)	(0.03)	(0.03)	(0.02)	(0.47)
N	105	78	78	78	78
R^2	0.937	0.940	0.947	0.953	0.954

Maloney and Valencia (2016): Pre-colonial Population Density, Slavery and Inequality

Dependent variable: GINI coefficient						
	(1)	(2)	(3)	(4)	(5)	(6)
Pre-colonial density	0.0584	-0.0746	-0.106	0.0411	-0.174	0.0920
	(0.165)	(0.159)	(0.152)	(0.180)	(0.223)	(0.292)
Brazil	0.153***	0.157***	0.122***	0.0994***	0.122***	0.0996***
	(0.00640)	(0.00790)	(0.0163)	(0.0180)	(0.0162)	(0.0186)
Colombia	0.0814***	0.0906***	0.0906***	0.0405*	0.0937***	0.0372
	(0.0148)	(0.0143)	(0.0140)	(0.0221)	(0.0169)	(0.0281)
South	0.0194***	0.0169***	-0.00538	-0.0129	-0.00386	-0.0136
	(0.00520)	(0.00636)	(0.0106)	(0.0122)	(0.0104)	(0.0125)
Slavery			0.000670***	0.000259	0.000609**	0.000281
			(0.000240)	(0.000272)	(0.000235)	(0.000278)
Slavery × population					0.00287	-0.00184
					(0.00373)	(0.00511)
Agriculture				0.0117		0.0139
				(0.0239)		(0.0252)
Rivers				0.00783		0.00750
				(0.00700)		(0.00720)
Distance to coast				0.0769**		0.0781**
				(0.0380)		(0.0374)
Temperature				0.00185*		0.00189
				(0.00109)		(0.00114)
Altitude				0.00623		0.00628
				(0.00586)		(0.00600)
Rainfall				0.00652**		0.00682**
				(0.00320)		(0.00334)
Ruggedness				-0.000354		-0.000402
				(0.000736)		(0.000705)
Malaria				0.00174		0.00165
				(0.00311)		(0.00314)
Observations	97	75	75	75	75	75

Conclusions

- Historical roots of Latin America's high level of inequality
- Stress colonial origins and factor endowments more than pre-colonial or post-independence factors
- Studies at the sub-national level and econometric identification
- **Slavery** as a determinant of income and inequality
- Central role of **land reform**, redistribution and **education**
- Empirical replications: it is hard to shock inequality historically, using some of the common proxies in the literature
- Role of public policy in a "deep rooted" continent

Table of Contents: Roots of Underdevelopment

- Introduction
  1. Latin America
  2. Mexico
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  4. Ecuador
  5. Bolivia
  6. Argentina
  7. Brazil
  8. Colombia I
  9. Colombia II
  10. Venezuela
  11. Suriname
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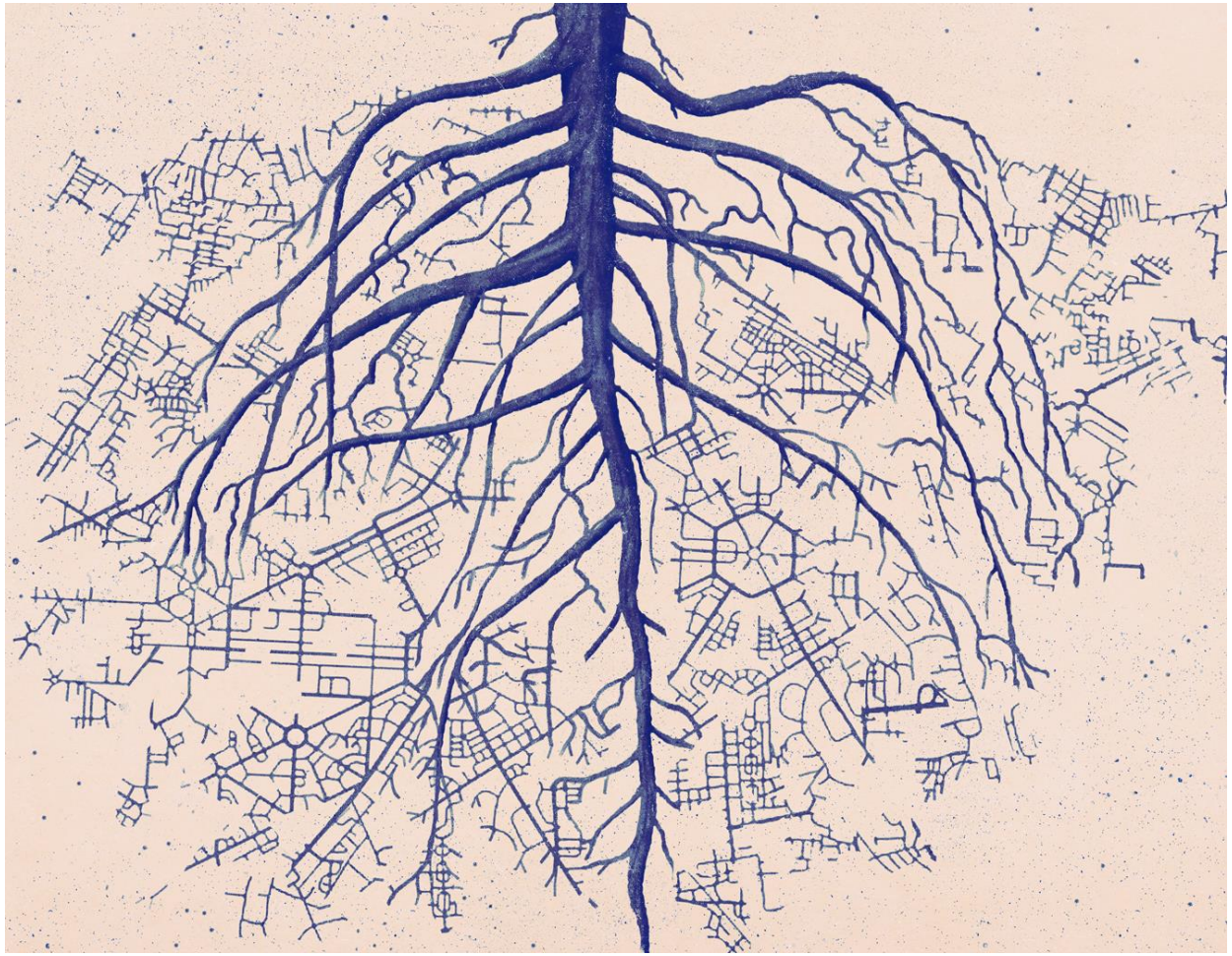
- Conclusions



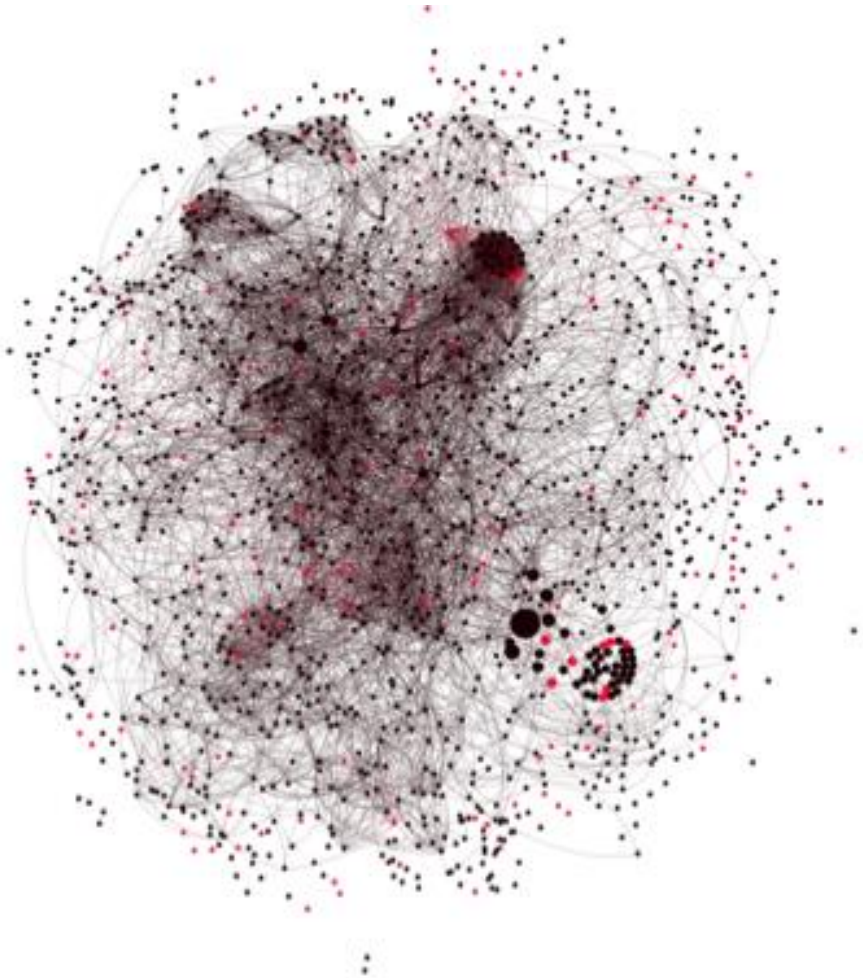
Conclusions: Roots of Underdevelopment

- New archival work, solid empirical analysis, modern econometric techniques and emphasis on mechanisms of transmission
- One continental and 17 sub-national analyses
- Key topics: migration, ethnicity, elite formation and conflict
- Others: multinationals and urban primacy
- Deep historical roots of underdevelopment and need for country specific policies
- Missing countries and topics: Central America, Caribbean, Guyanas
- Avenues for future research (political dimension) and an invitation to continue exploring Latin America's rich history!

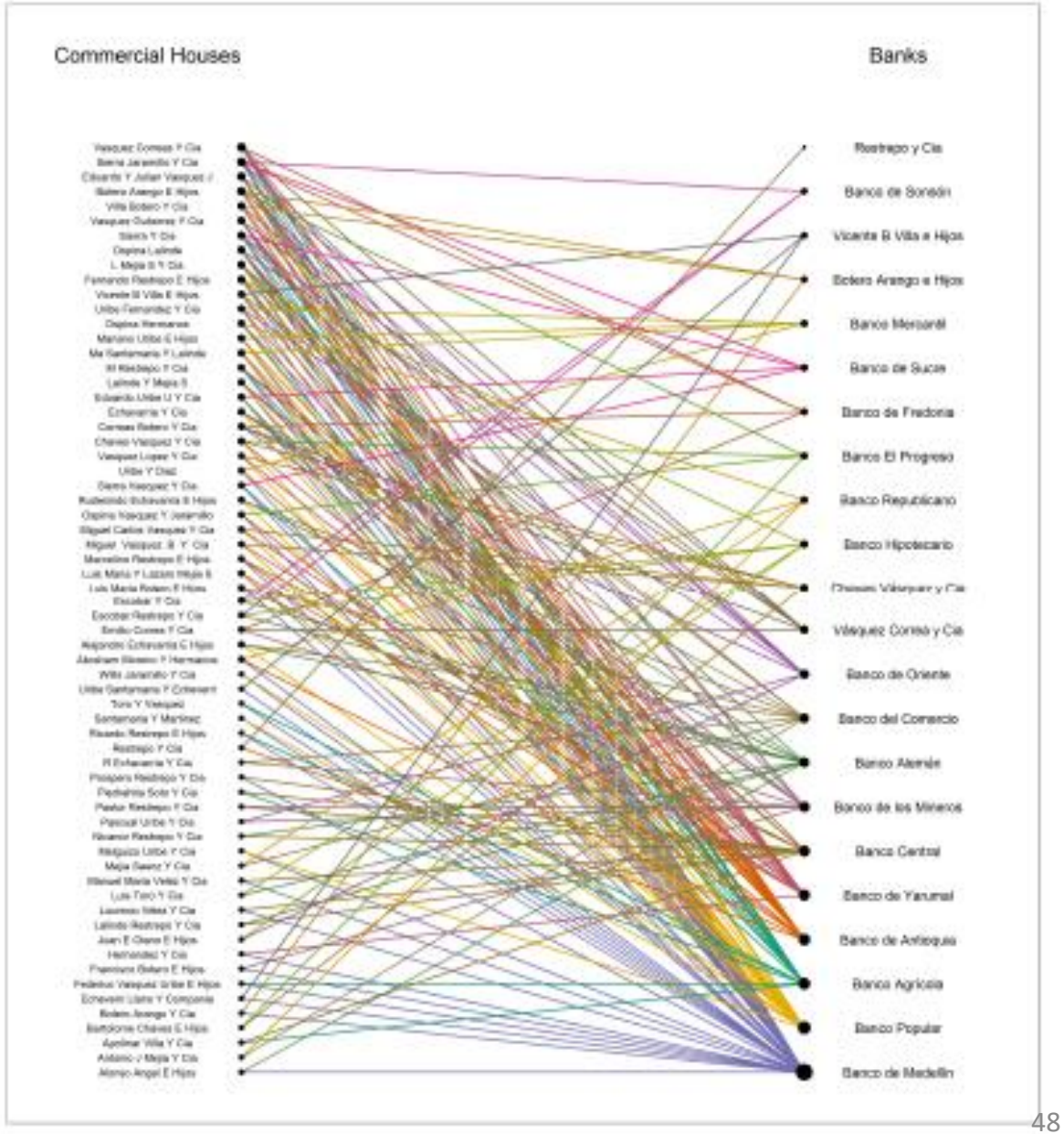
“Modernizing Elites in Latin America: Social Networks evidence from the Emergence of Banking in Antioquia”

by Javier Mejía

- How to reconcile the individuality of entrepreneurs with the collective behavior required to consolidate capitalism?
  - The author focuses on interactions between bankers and economic elites to answer this question
  - Puts the focus on Antioquia during the 19th and 20th centuries (1870-1930) collecting novel data



- The author shows how the position of the banker in the network mattered for his performance
  - They were a diverse community
  - Eventually amalgamated with industrialists
- New evidence on the persistence of (non-political) elites in Colombia
  - A dynamic and changing one in this case

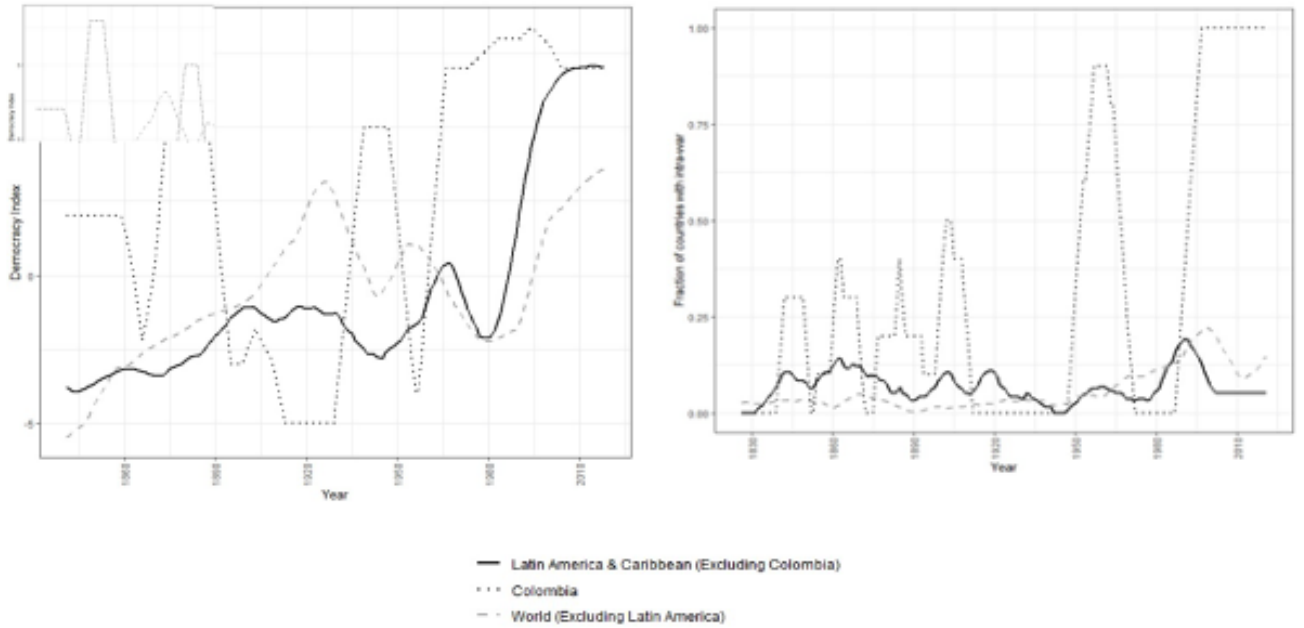


“Colombia: Democratic but Violent?”

by Leopoldo Fergusson and Juan Fernando Vargas

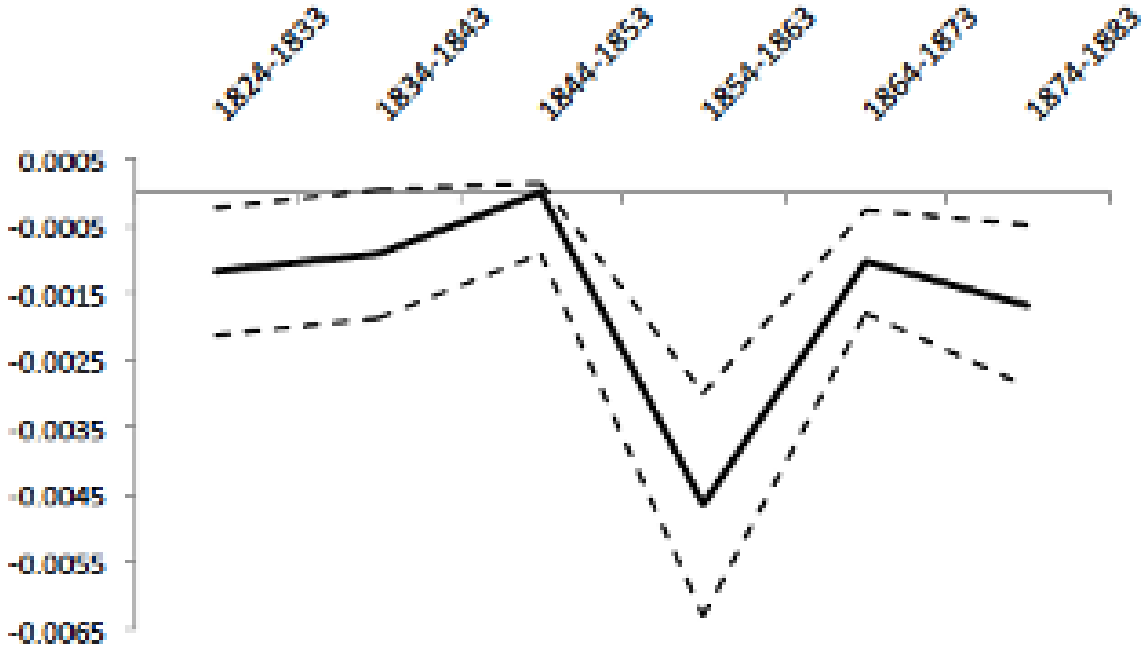
- There exists a paradox of violence in Colombia:
  - Extreme episodes of violence, but remarkably stable democracy
- Two main factors behind this paradox are:
  - “Horizonal” nature of social conflict
  - Weakness of key institutions such as the judiciary or the military

Democracy and Conflict: LAC

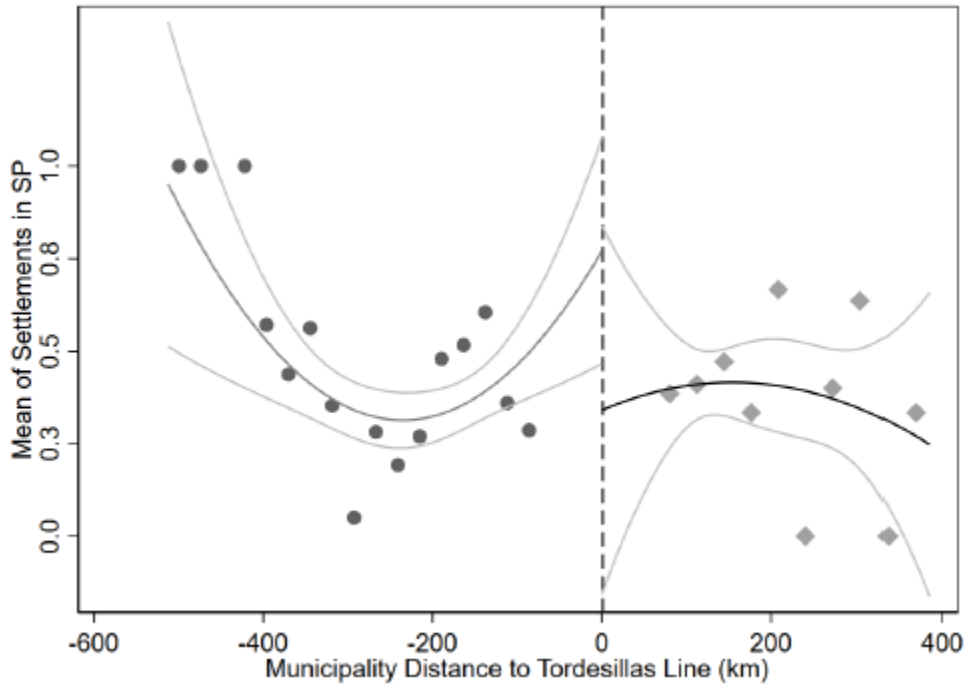


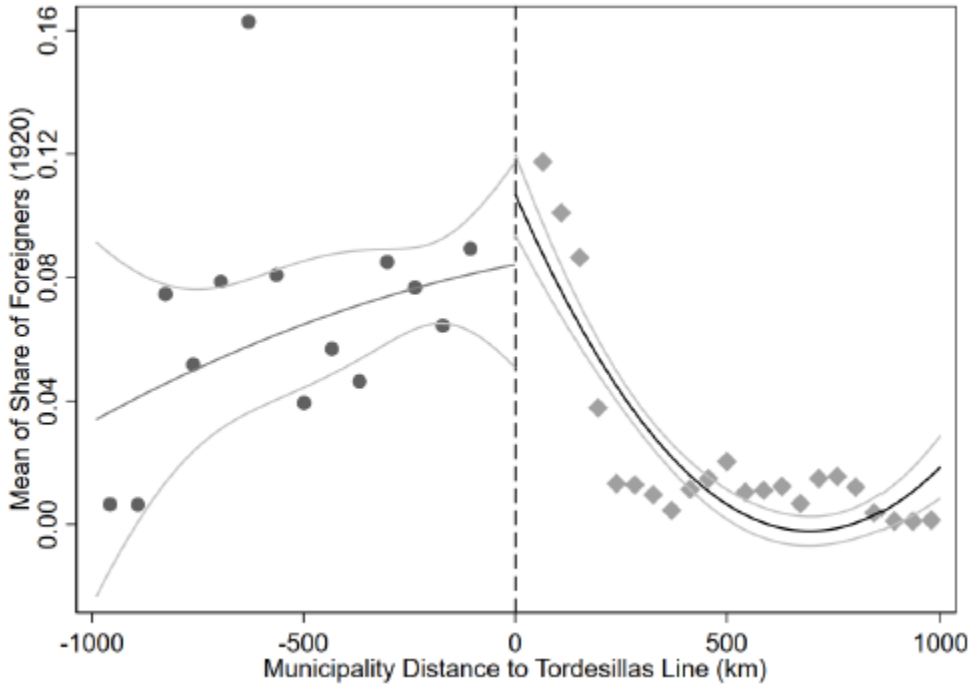
- The authors zoom into the 1853 constitutional democratization effort
  - Slavery abolition and universal male suffrage
- Original data on violent political confrontations in the 19th century
- Violence dropped temporarily and returned to pre-reform levels after local elites managed to reverse most of the reforms of the constitution: real power

Enfranchisement vs. Violence

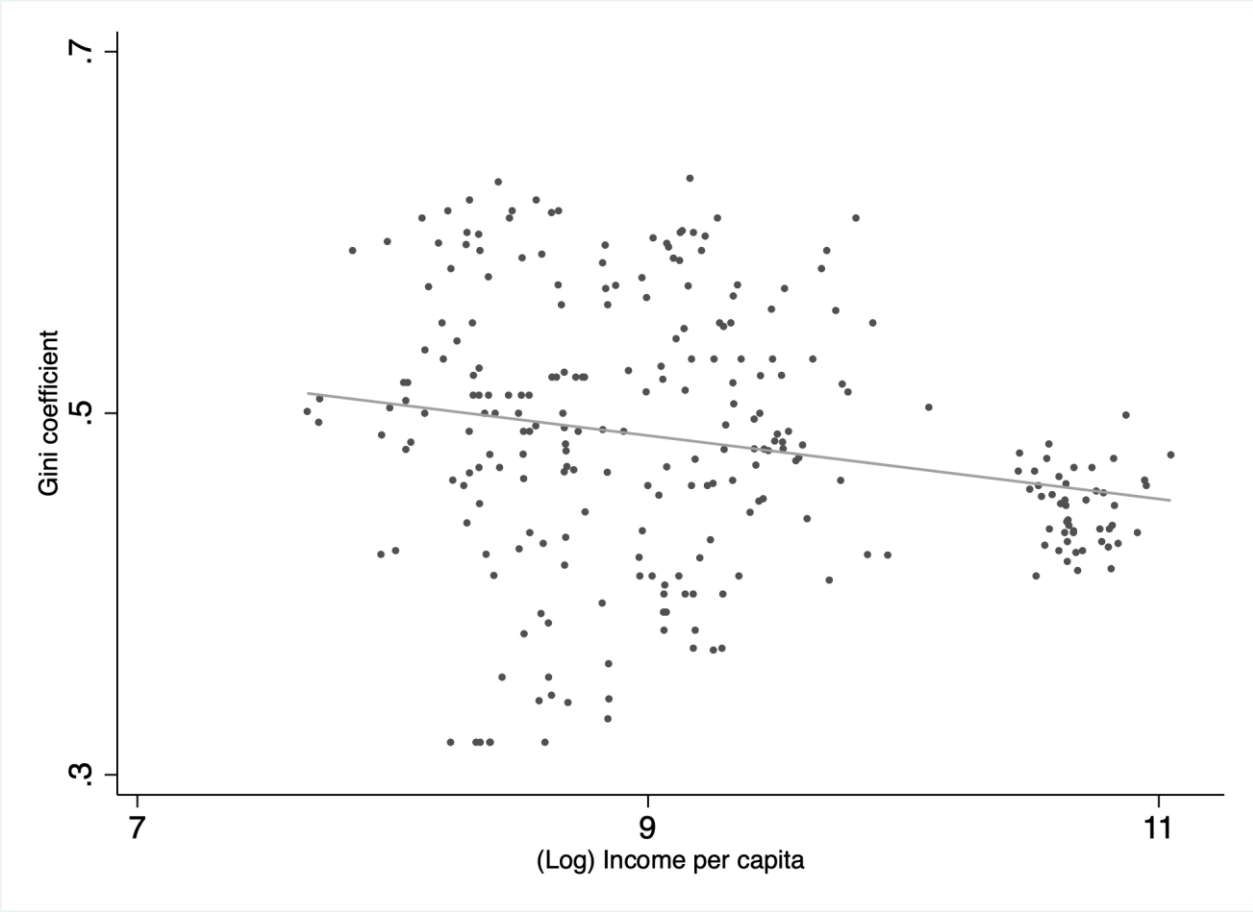


Migration and Slavery in Brazil: Laudares and Valencia (2022)



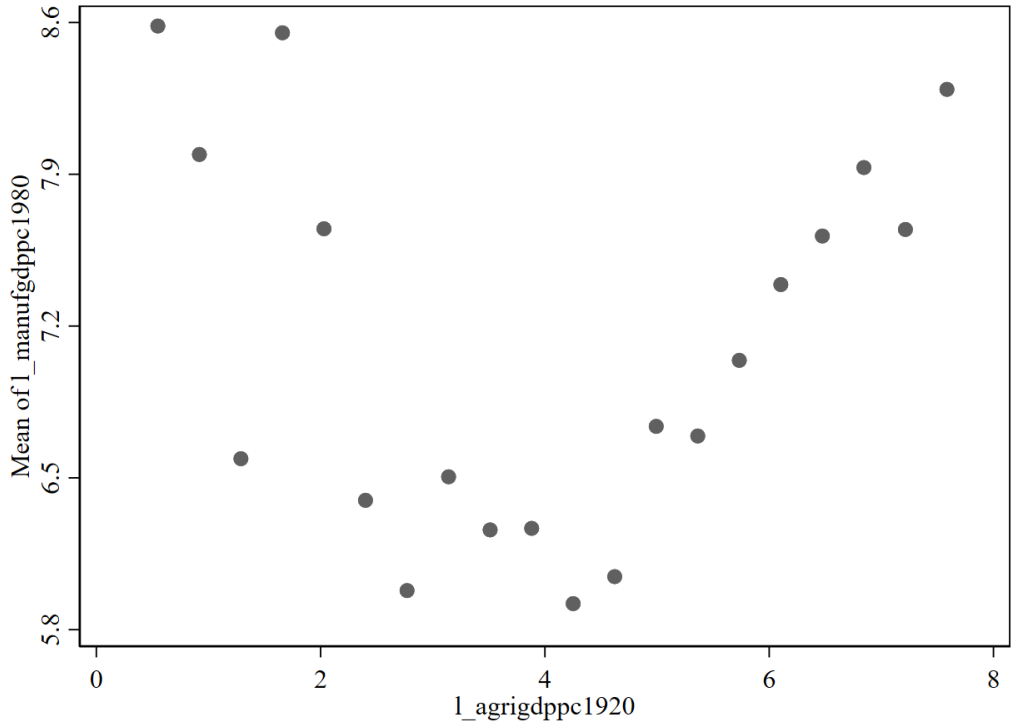


Income and Inequality in the Americas: sub-national (Maloney and Valencia, 2016)

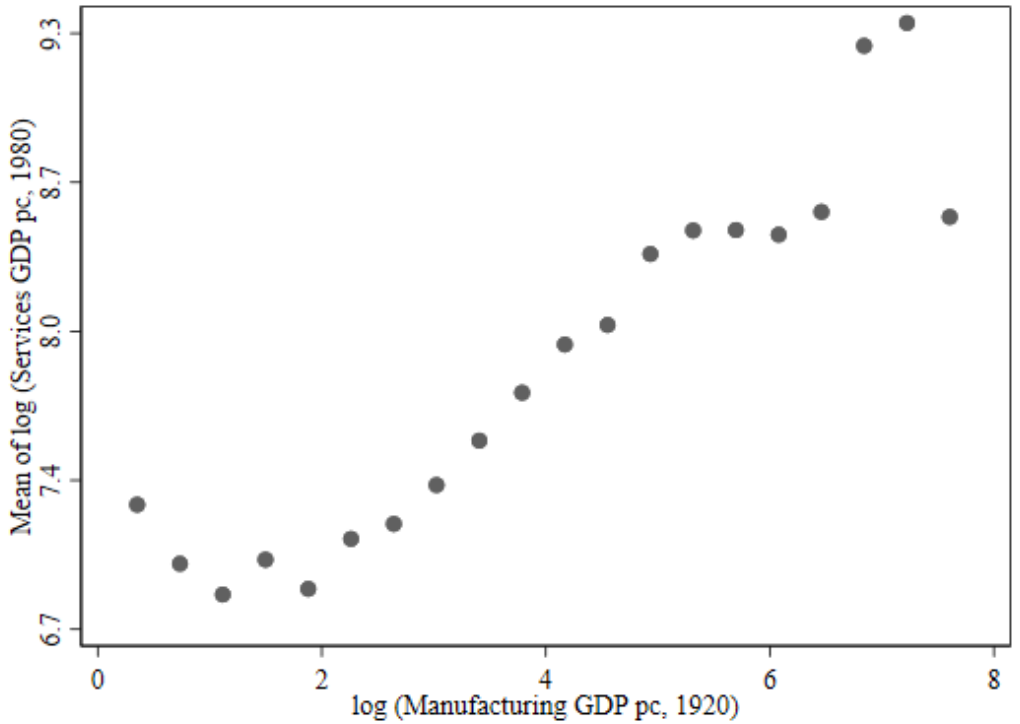


Structural Transformation in Brazil

Manufacturing in 1980 vs. Agriculture in 1920

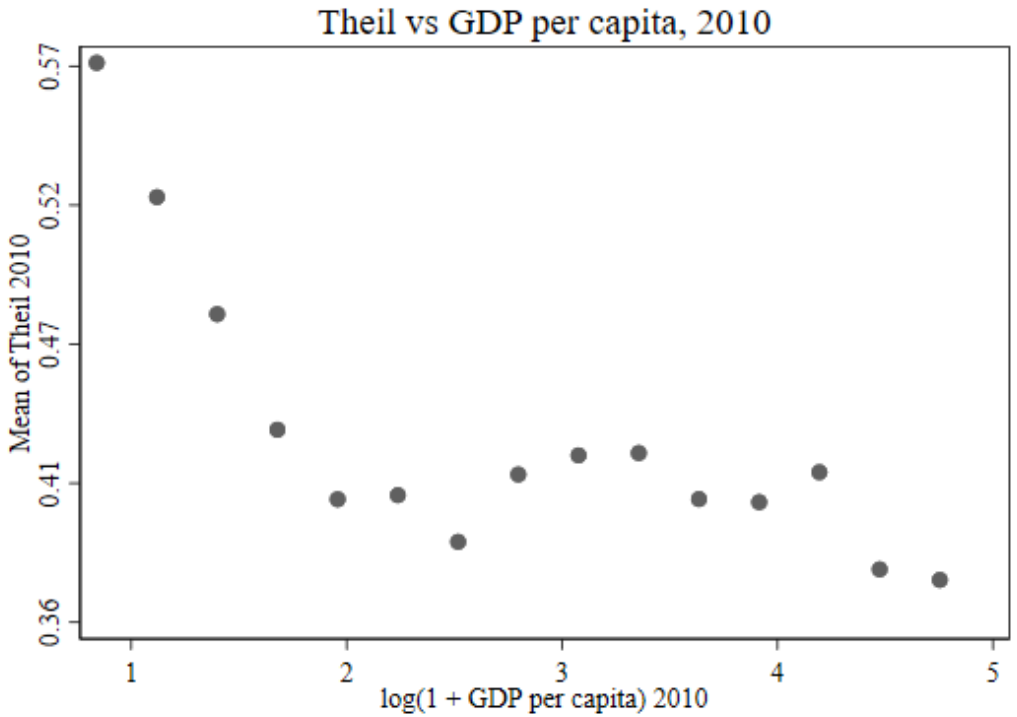


Services in 1980 vs. Manufacturing in 1920

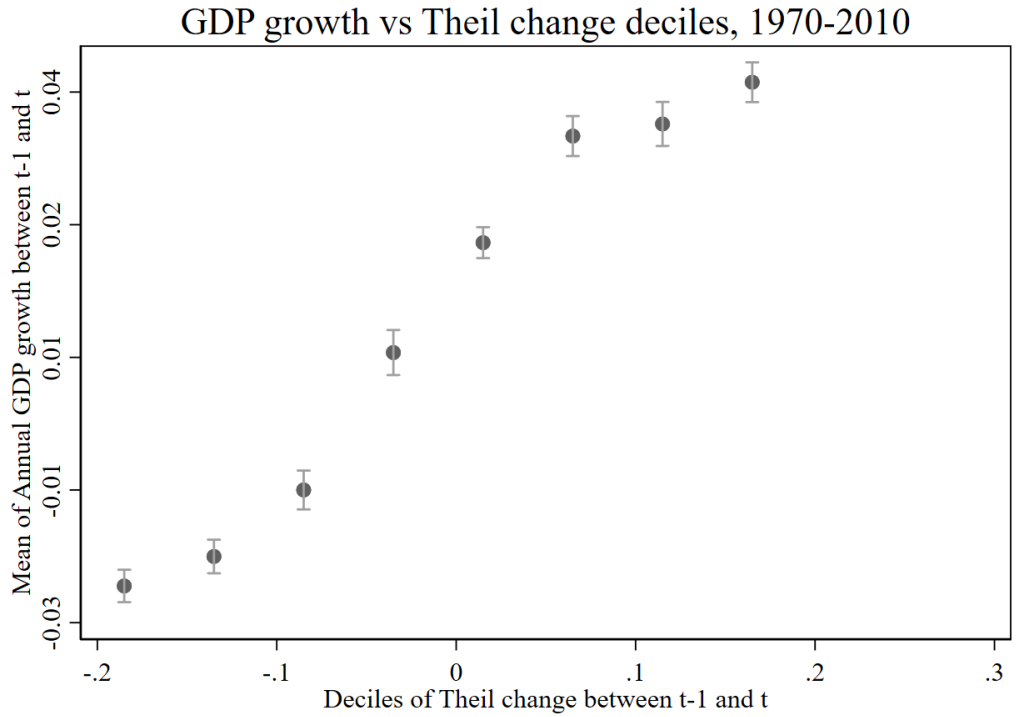


Inequality and Income in Brazil: Laudares and Valencia Caicedo (2022)

2010: Theil vs. GDP



1970-2010 (by Theil change deciles)



Mechanisms: Capitanias and Land Inequality

	(1)	(2)	(3)	(4)
Dependent Variable: Land Inequality in 1920				
Number of Slaves over total population	0.0532	0.197*	0.286**	0.286*
	(0.0662)	(0.113)	(0.137)	(0.140)
Observations	767	767	724	724
R-squared	0.001	0.223	0.303	0.303
Capitania Cluster	No	No	No	Yes
State FE	No	Yes	Yes	Yes
Geographic Variables	No	No	Yes	Yes