Institutions and African Development

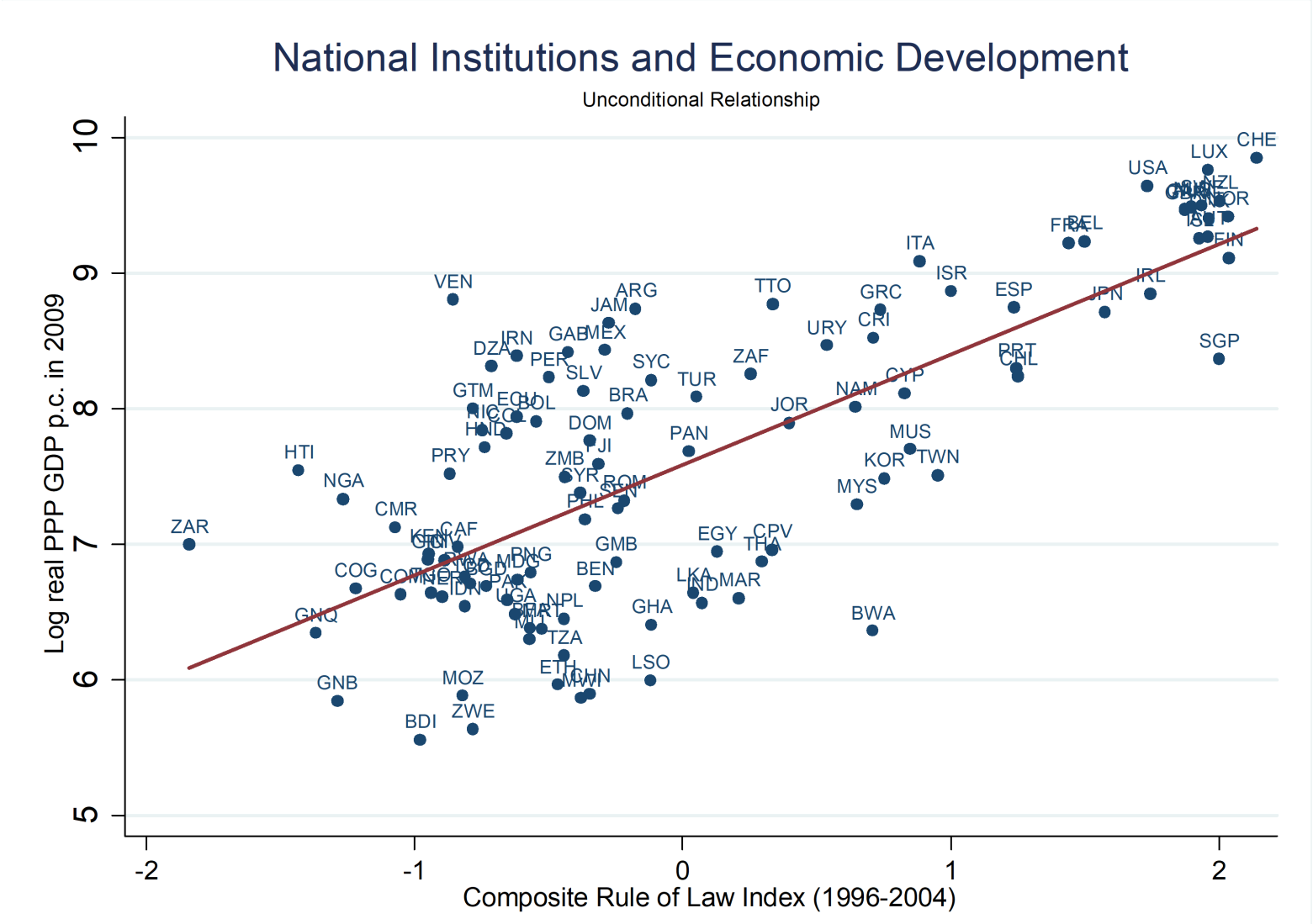
Stelios Michalopoulos

Brown University

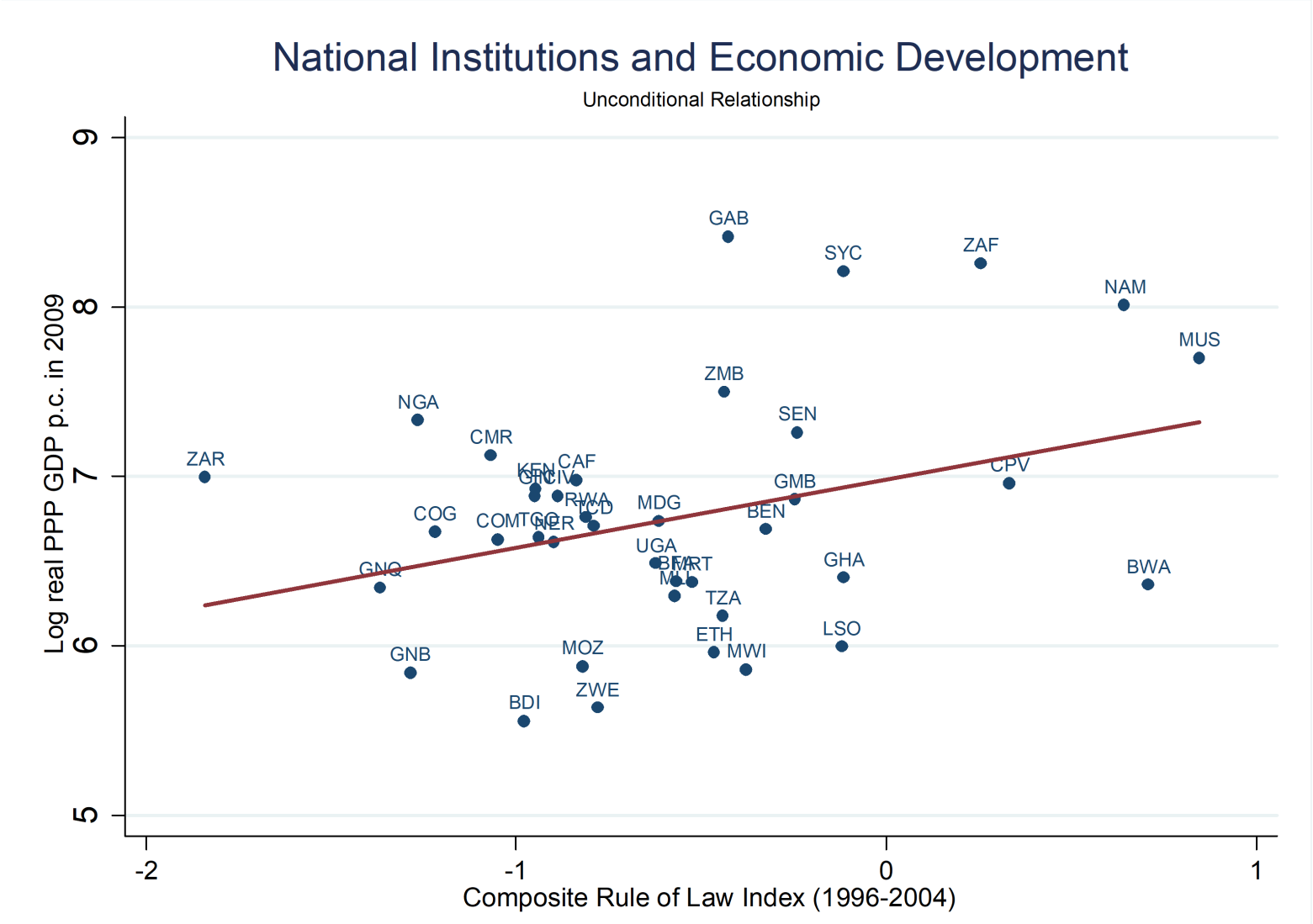
Wheeler Institute. African History through the Lens of Economics

February 2022

National Institutions and Development across the Globe



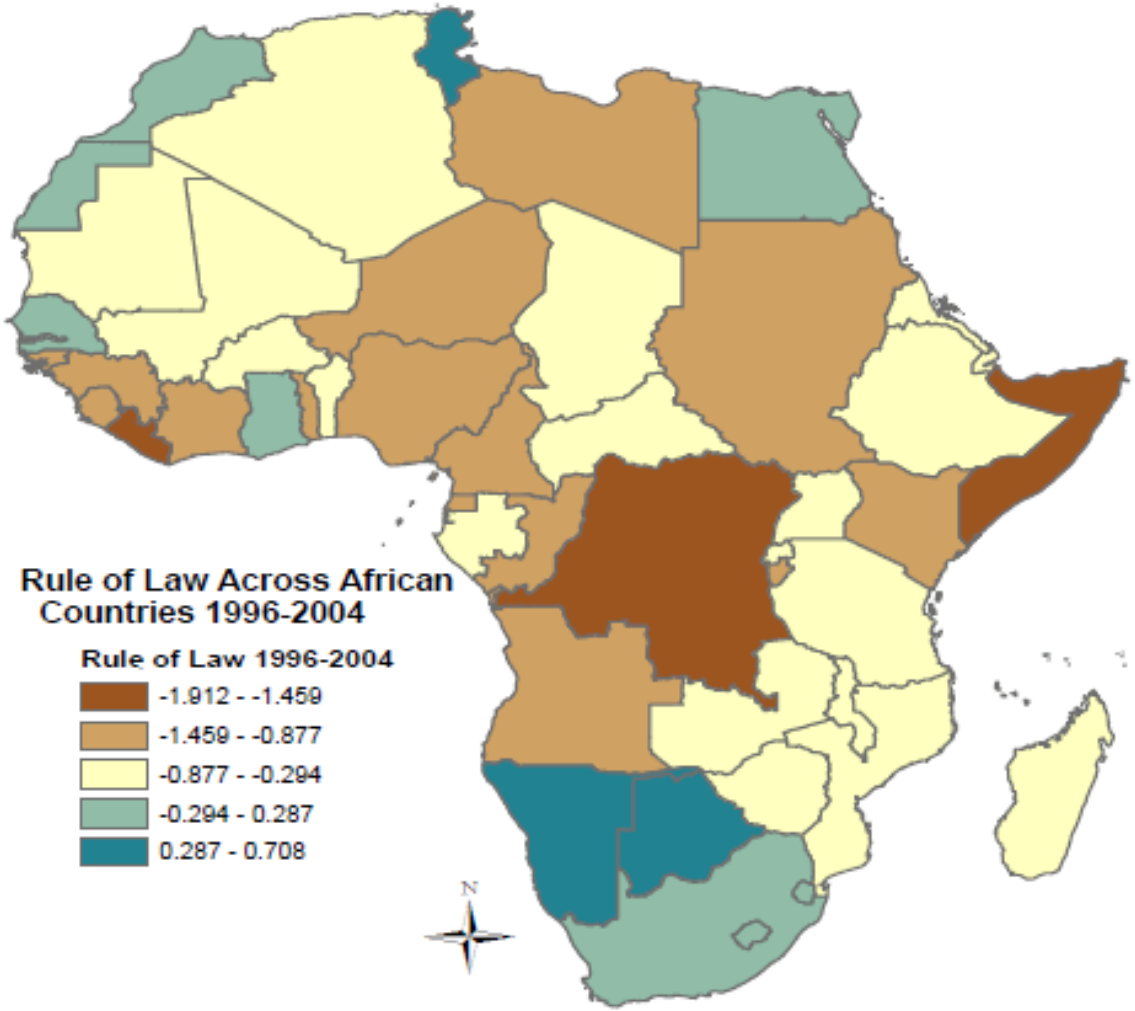
National Institutions and Development across Africa



National Institutions and Economic Development

- **From Correlation to Causation?**
  - Textbook economics often motivate the role of institutions by stressing how economic performance diverged between North and South Korea as well as East to West Germany [*historical experiments*]
  - Can we find in Africa instances of groups exposed to different nationwide institutions?

Contemporary National Institutions across Africa



Ethnic Homelands before Colonization - Murdock 1959

[Clearly there is Noise. More Work Needed]



Berlin Conference 1885/6



The Design of African Borders

- Scramble for Africa [more to come, week 5]
- Berlin Conference 1884/1885 and subsequent treaties among Europeans in 1890s
- In most cases, colonizers had not even explored most of Africa when borders were agreed.
- Drawing involved protectorates, large (free-trade) areas, and spheres of influence rather than potential states.
  - no major changes of borders during colonization or after independence

Current National Boundaries and Ethnic Homelands



Partitioned Groups [measurement error present]



National Institutions and African Development

Historical Natural Experiment

1. Partitioned ethnic homelands in adjacent countries have similar geographic-ecological endowments [validation]

2. People from the same ethnic group mostly reside within the boundaries of historical ethnic homelands in neighboring countries

   [validation in line with this, although people do move]

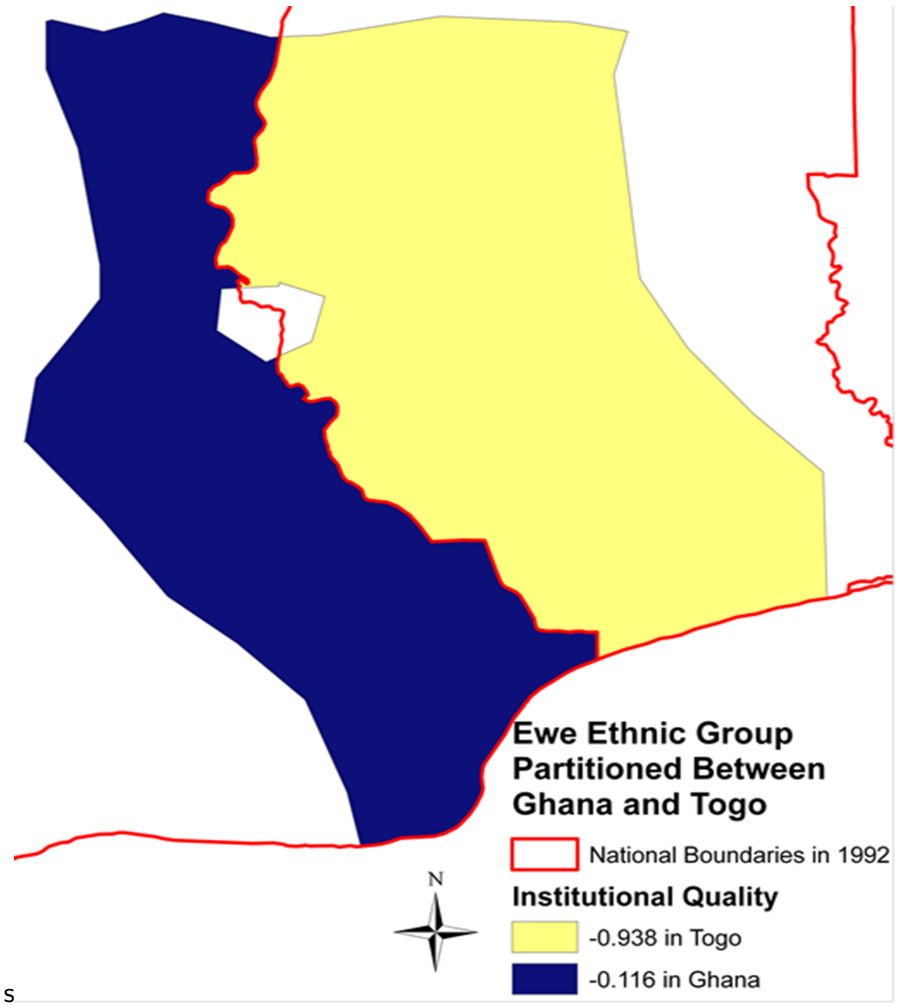
   - similar cultural anthropological traits (though people's aspirations, norms, and beliefs do differ)
   - similar historical features pre colonization (more to come)

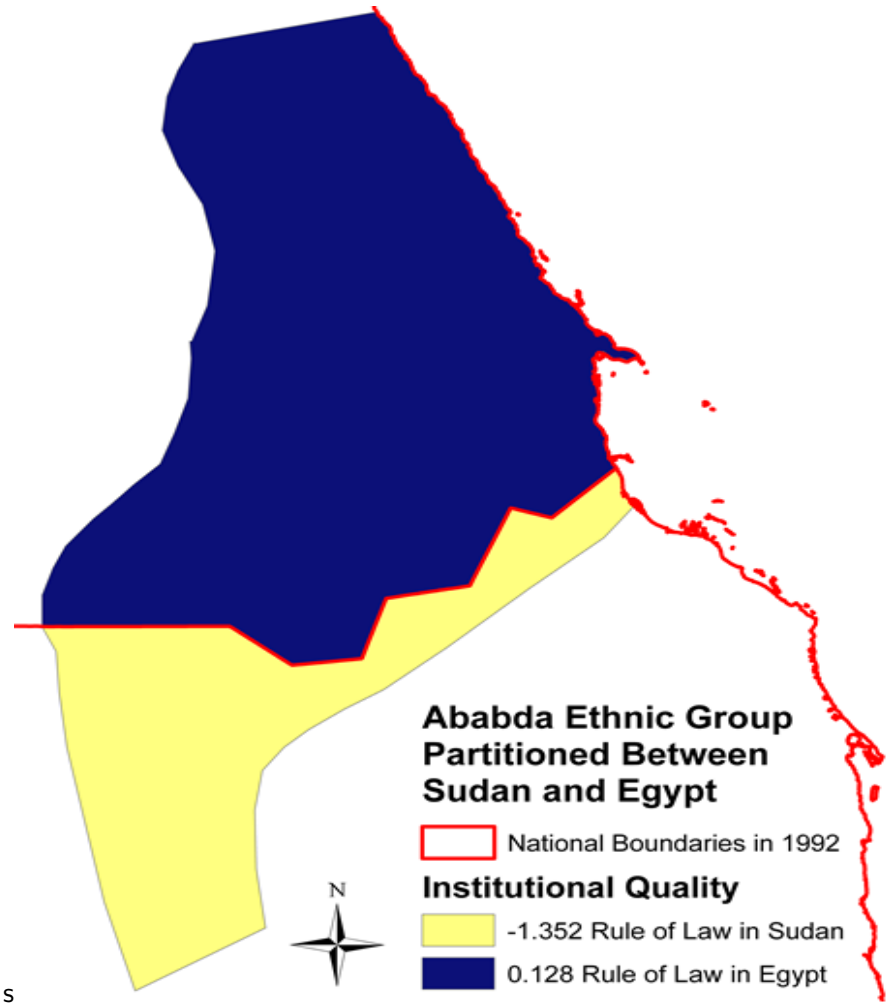
Ethnic Partitioning as a Source of Quasi-Exogenous Variation

- Considerable number of partitioned ethnic groups ("small" quasi-natural experiments)
  - 220 groups (out of 826 in Murdock's map)
  - account for idiosyncratic patterns (external validity)
  - enable to explore heterogeneity

- Examples of Partitioned Ethnicities (see appendix for a complete list):
  - 2 countries: Anyi (Ghana (58%) and the Ivory Coast (42%);
  - 3 countries: Chewa (Mozambique (50%), Malawi (34%), and Zimbabwe (16%))

Examples. Ewe and Ababda





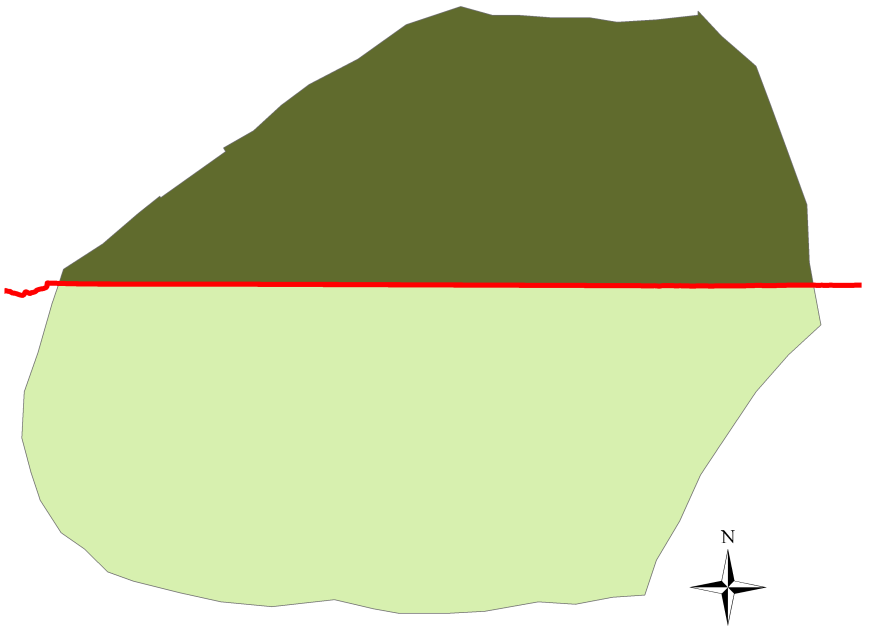
Satellite Light Density Data: Merits

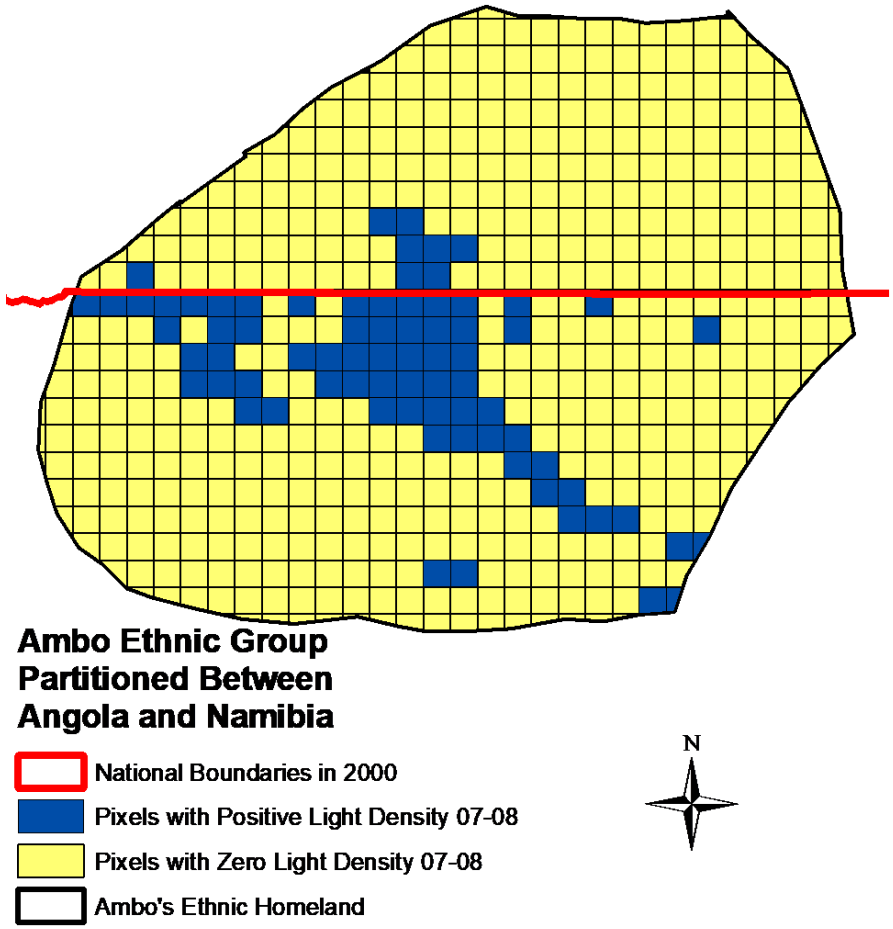
- **significant problems on cross-country (African) GDP** (measurement, unavailability shadow economy, agriculture) [see Jerven (2013, 2016)]
- **paucity of high resolution regional data on development**
- **Satellite Light Density:** available at a fine grid
  - strong correlation with income and consumption both across countries over time (Henderson, Storeygard, and Weil, AER 2011)
  - special lecture on Thursday, 10 February by Tanner Regan (LBS) on Mapping Contemporary African Development

Africa from Above in 2000



Example


N
Ambo Group Partitioned Between Angola and Namibia
Light Density in 2007-2008
Mean Luminosity for Ambo's partition in Angola: 0.0504
Mean Luminosity for Ambo's partition in Namibia: 0.162


Ambo Ethnic Group
Partitioned Between
Angola and Namibia
N
National Boundaries in 2000
Pixels with Positive Light Density 07-08
Pixels with Zero Light Density 07-08
Ambo's Ethnic Homeland

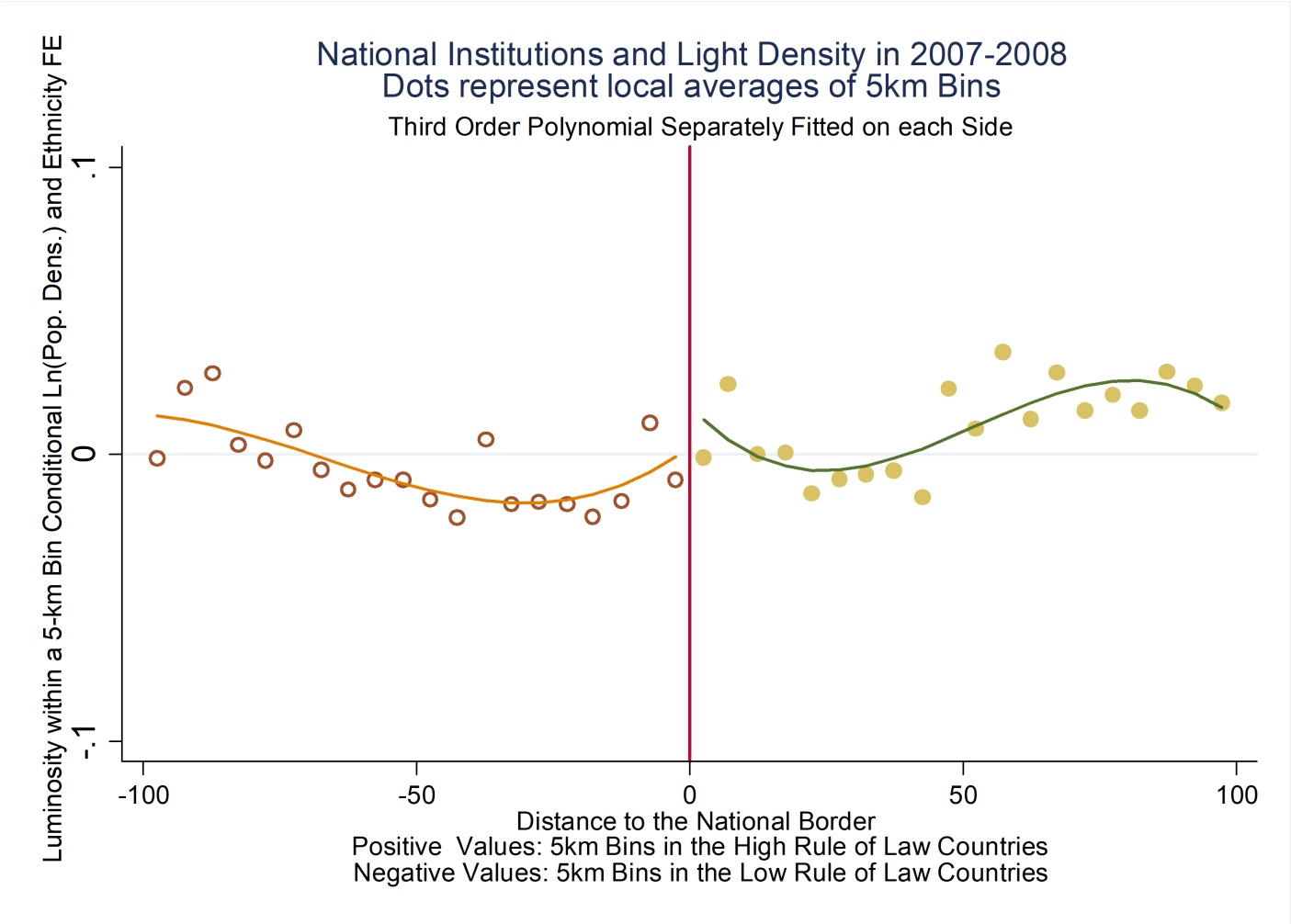
Measures of National Institutional Development

- World Bank's Governance Indicators
  - Rule of Law Composite Index
  - Control of Corruption Composite Index
- Various Other Measures
  - Country Risk Agencies and NGOs. ICRG risk of expropriation; Polity's executive constraints index; etc.
  - World Bank Doing Business Measures [on hold for now]
  - Many other [democracy, transparency, graft]

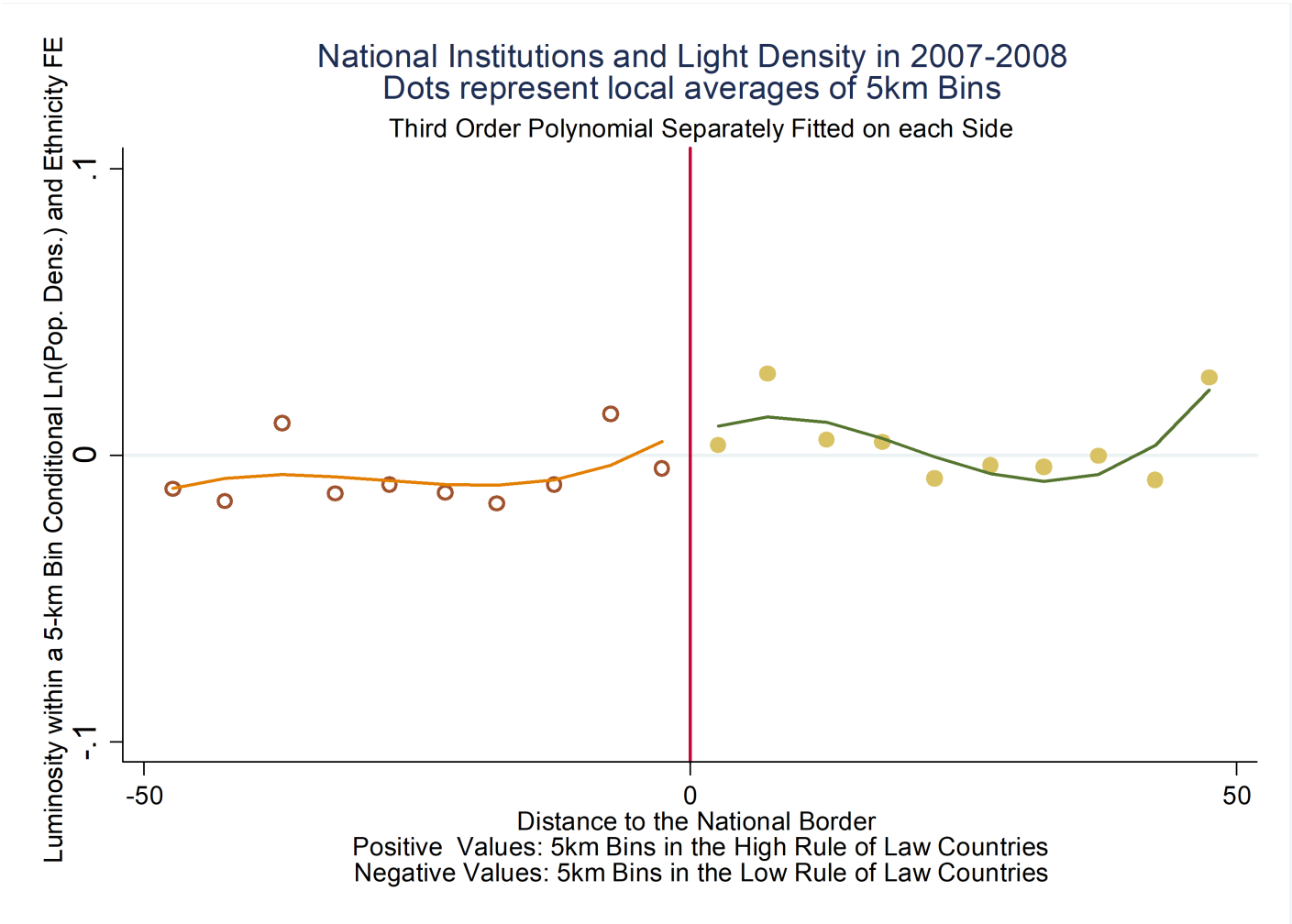
Cross-Ethnic Group Analysis

- **Positive correlation between rule of law and regional development** (echoes cross-country evidence)
- Positive correlation between rule of law and regional development even when we condition on geography, location and other local characteristics (elevation, natural resources, prevalence of disease, distance from the coast, etc)
- **BUT the estimates clearly do not imply causation**. Need to compare adjacent (by the border) regions, where mostly people with similar attitudes, values, beliefs reside (acknowledging diversity)

Graphical Illustration: High Rule of Law



Graphical Illustration: High Control for Corruption



Results Summary

- So.....lack of systematic association between national institutions and development within homelands of split by the colonial/national border ethnic groups
  - ethnic homeland level analysis
  - pixel-level analysis

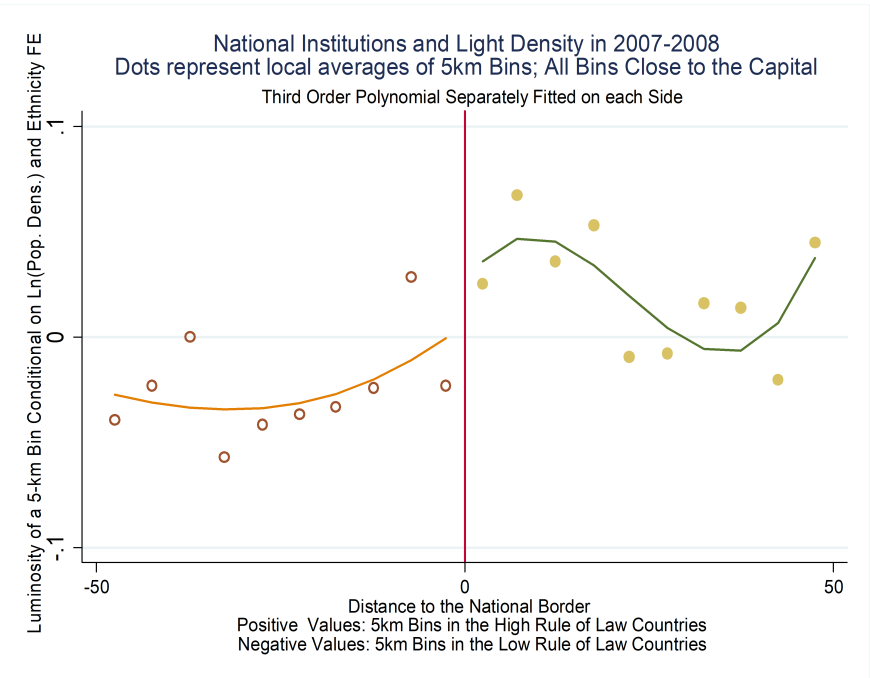
The Argument (Herbst, 2000)

- Europeans' presence in Africa was (with some exceptions) limited to the coastline and capitals [more to come, weeks 6-9]
- Minimal levels of infrastructure investment by colonizers, especially outside capitals
- Unfavorable geography
- Artificial design of colonial states [more to come, week 5]
- National leaders tried to consolidate power in capitals and other urban hubs; continued ruling country-side via indirect rule.
- **Minimal reach of colonial and post-independence state in areas far from the capitals.**

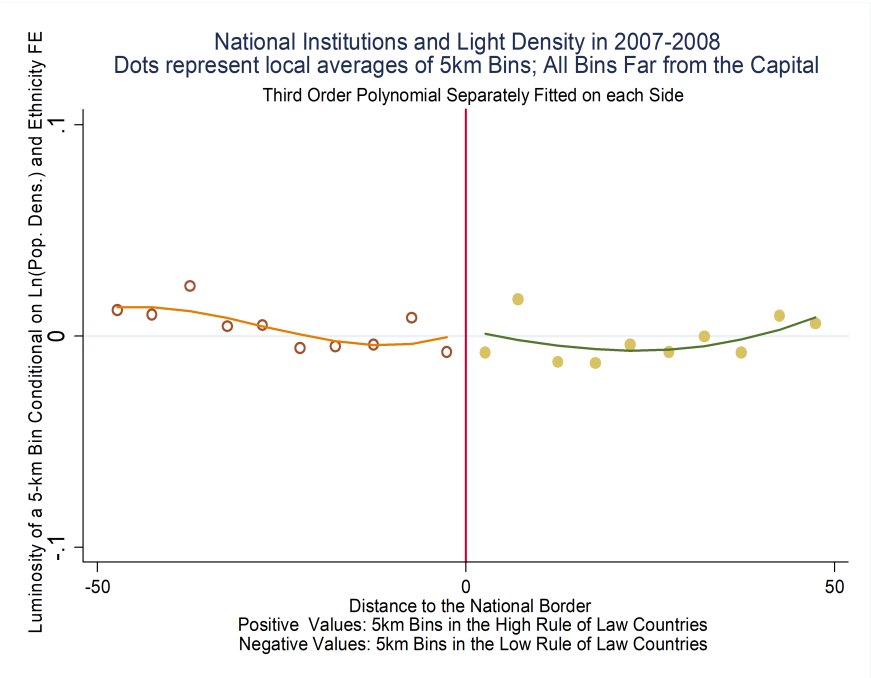
Conjecture from African History (new to economics at the time)

- **Differential role of national (and colonial) institutions in areas close and far from the capital**
  - If national institutions affect development they should matter in urban centers mostly close to the capitals
  - In areas far from the capital the role of national institutions (courts, police, administration) should be minimal.

RD Estimates - Graphical Illustration



Close to the Capital



Far from the Capital

Key Findings

- Examine the penetration of national institutions (Herbst, 2000)
  - strong correlation between institutions and development in areas close to the capital
  - sharp decay of the effect of national institutions as we move away from the capitals
- State capacity, legal enforcement, and subnational development
  - individuals identify more often with the ethnicity rather than the nation they belong to - Afrobarometer Surveys.

African Colonization

- colonizers in many parts of the continent did not much alter local (ethnic) structures (Herbst, 2000)
- via the doctrine of indirect rule, ethnic chiefs and kings were empowered and their often oppression and role was legitimized (Mamdani, 1996)
- weak state capacity of post-independence African countries (Besley and Persson, 2011; Michalopoulos and Papaioannou, QJE 2014)

- **Inertia of ethnic traits** (ample evidence also outside Africa (caveat: not v. easy to draw ethnic lines)

Precolonial Period

- **Large variation in the degree of pre-colonial political centralization (with noise)**
  - centralized states (e.g., Zulu Kingdom; Buganda Kingdom; Shongai)
  - large chiefdoms (e.g., Wolof and Ashanti in Western Africa)
  - acephalous-locally (at the village level) societies (e.g., Nuer in Sudan)
- **Variation also across many ethnic institutional traits** (elections, courts, lineage systems, etc)
- **Differences in economic structure;** type of subsistence economy, practices in agriculture (Alesina, Giuliano, and Nunn, QJE 2013; Michalopoulos, Putterman, and Weil, JEEA 2018)

Why Look at Precolonial Institutional Structures?

- **In an early study of African societies, anthropologists Fortes and Evans-Pritchard (1940) categorize groups into broad systems.**

1. *"One consists of societies with centralized authority, administrative machinery, and judicial institutions-in short, a government-and in which cleavages of wealth, privilege, and status correspond to the distribution of power and authority.*
2. *The other consists of those societies which lack centralized authority, administrative machinery, and judicial institutions-in short which lack government-and in which there are no sharp divisions of rank, status, or wealth.*

Early Case Studies. A Tale of Two Societies

- **Seminal work of Douglas (1962) among the Kuba and the Lele** [see also Lowes, Nunn, Robinson, and weigel (ECMA 2017)]
  - Compares economic performance in the neighboring ethnicities of the Lele and the Bushong (separated by the Kasaai River). She traces the significant differences in well-being between the two ethnicities to the different ethnic institutions..
  - The differences in development between the Kuba and neighboring groups seem to originate in the 17th century when the Kuba king Shyaam laid the foundations of a strong state with several layers of governance by chiefs that were appointed by the king but also elected from local assemblies..

A Tale of Two Countries. Botswana and Sierra Leone

- Schapera (1967, 1970) notes that Tswana chiefs including the king were accountable to the local community both via local and inter-clan assemblies (kgotlas). In kgotlas, key issues were discussed and debated among all adult males.

- Botswana's relative post-independence success seems to be partly driven by the perceived legitimacy of the Botswana Development Party's government, which was seen as a continuation of Tswana rule, based on precolonial chiefs

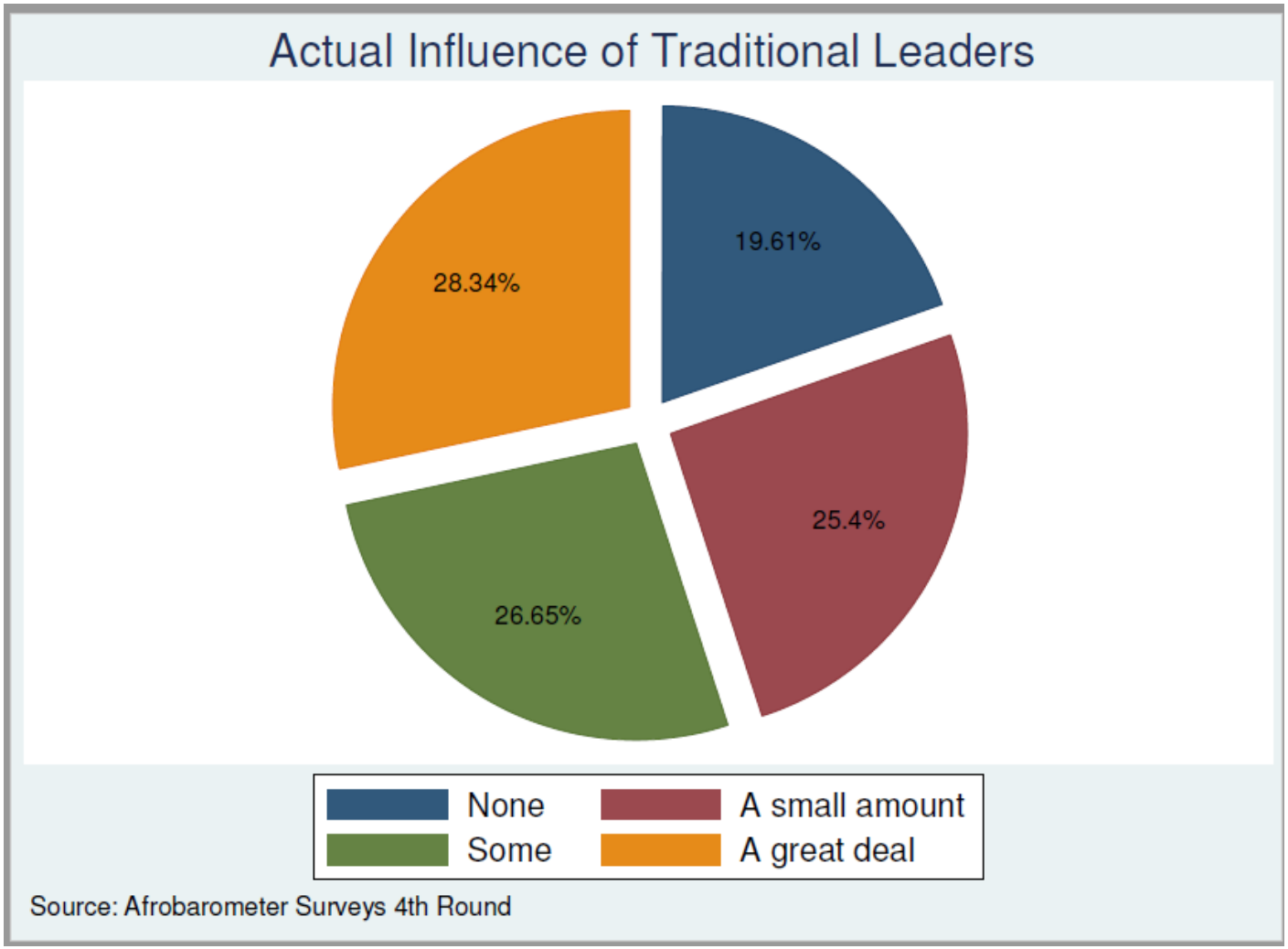
A Tale of Two Countries. Botswana and Sierra Leone, cont.

- Chaves and Robinson (2011) argue that a part of Sierra Leone's post-independence devastating performance can be traced to the lack of large and politically complex kingdoms before colonization
  - The absence of a centralized bureaucracy allowed the British to implement extractive policies using self-appointed paramount chiefs that were not accountable to the local community.
  - After independence local chiefs remained powerful as they became the main instrument for patronage politics.

Post-Independence

- In many countries/regions, traditional leaders (chiefs and kings) were among the leaders of the movements of independence
- Some countries tried to build national identities and initially tried to minimize the role of chiefs and ethnic institutions (e.g. Tanzania, Uganda); Yet, role of chiefs remained important
- Importance of traditional leaders [Logan (2011); Acemoglu et al. (JPE 2014); Baldwin (2016); Michalopoulos and Papaioannou (AMP 2015]
- Recently there have been in many countries formal attempts to restore ethnic institutions (e.g. Uganda; Ghana)

Role of Traditional Leaders. Survey Evidence (2008)



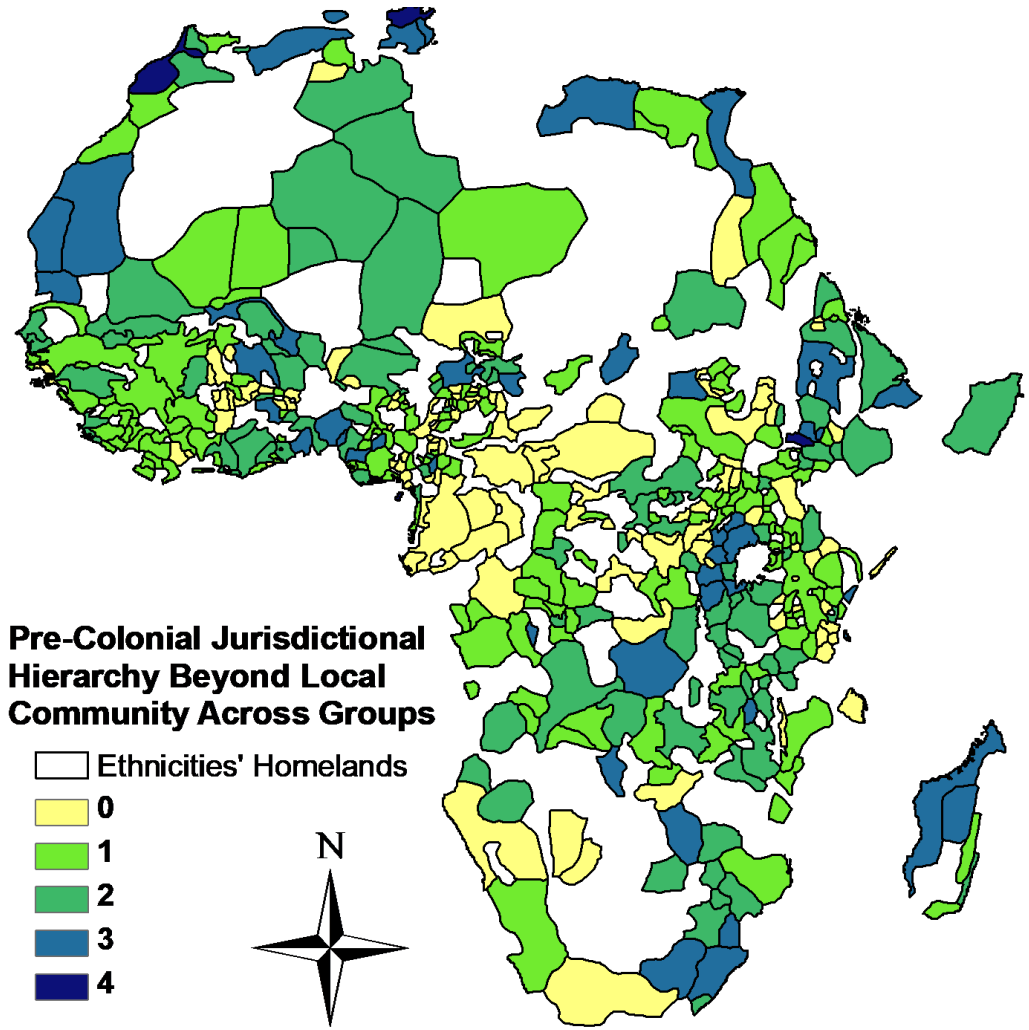
George Peter Murdock's (1967) Ethnolinguistic Atlas. Ethnic Institutional and Cultural Traits

- 534 groups in Africa at the time of colonization
- variables on ethnic cultural traits (monogamy, polygyny), institutions (political centralization, slavery), societal structure (class stratification), the economy (dependence on agriculture, size of settlements), etc.
- "*Jurisdictional Hierarchy above the Local Community Level*"
  - Overlap of societies
  - Map drawing and projection error
  - Other types of measurement error [perhaps non-classical]
  - more work needed

Jurisdictional Hierarchy above the Local Level

- Ordered variable indicating the number of political jurisdictional hierarchies above the local community level (village) for each society.
  - 0 : stateless societies.
  - 1 : petty chiefdoms.
  - 2 : larger-paramount chiefdoms.
  - 3 and 4 : groups part of large states.
- Based on the number of jurisdictional hierarchy construct a binary index of political centralization (following Gennaioli and Rainer, 2007)
  - 0 : stateless societies and petty chiefdoms.
  - 1 : paramount chiefdoms and large states.

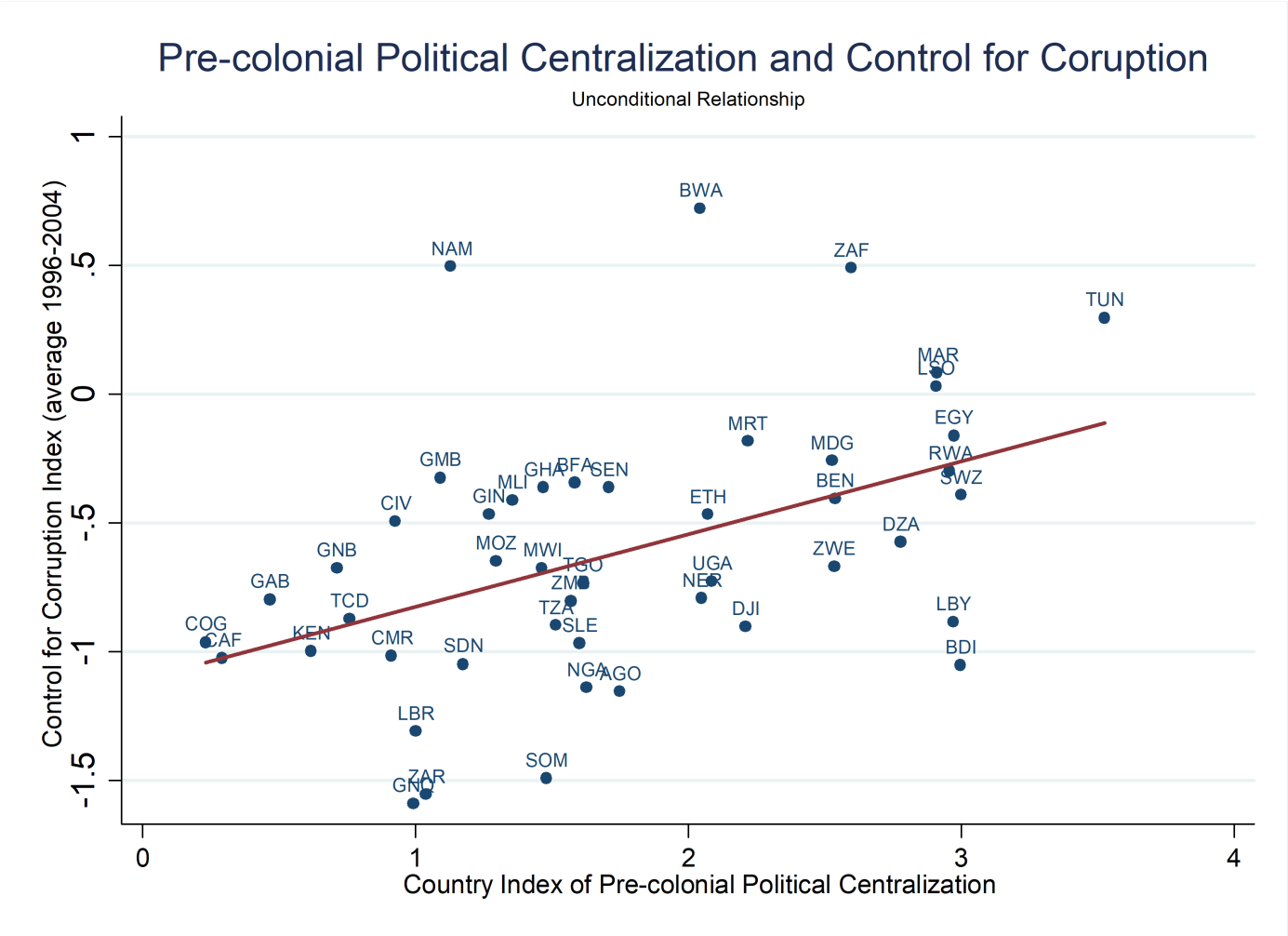
Jurisdictional Hierarchy above the Local Level



Preliminary Cross-Country Patterns

- Nicola Gennaioli and Ilia Rainer (JEG 2007, 2006) assess the impact of pre-colonial centralization using cross-country regression analysis
  - previous work by Luis Putterman (Bockestette, Chanda, and Putterman, JEG 2002; Putterman and Weil, QJE 2010)
- Examine the association between country-level pre-colonial statehood (political centralization) and
  - economic development
  - public goods provision
  - country-level institutional quality

Pre-colonial Political Centralization and Institutions



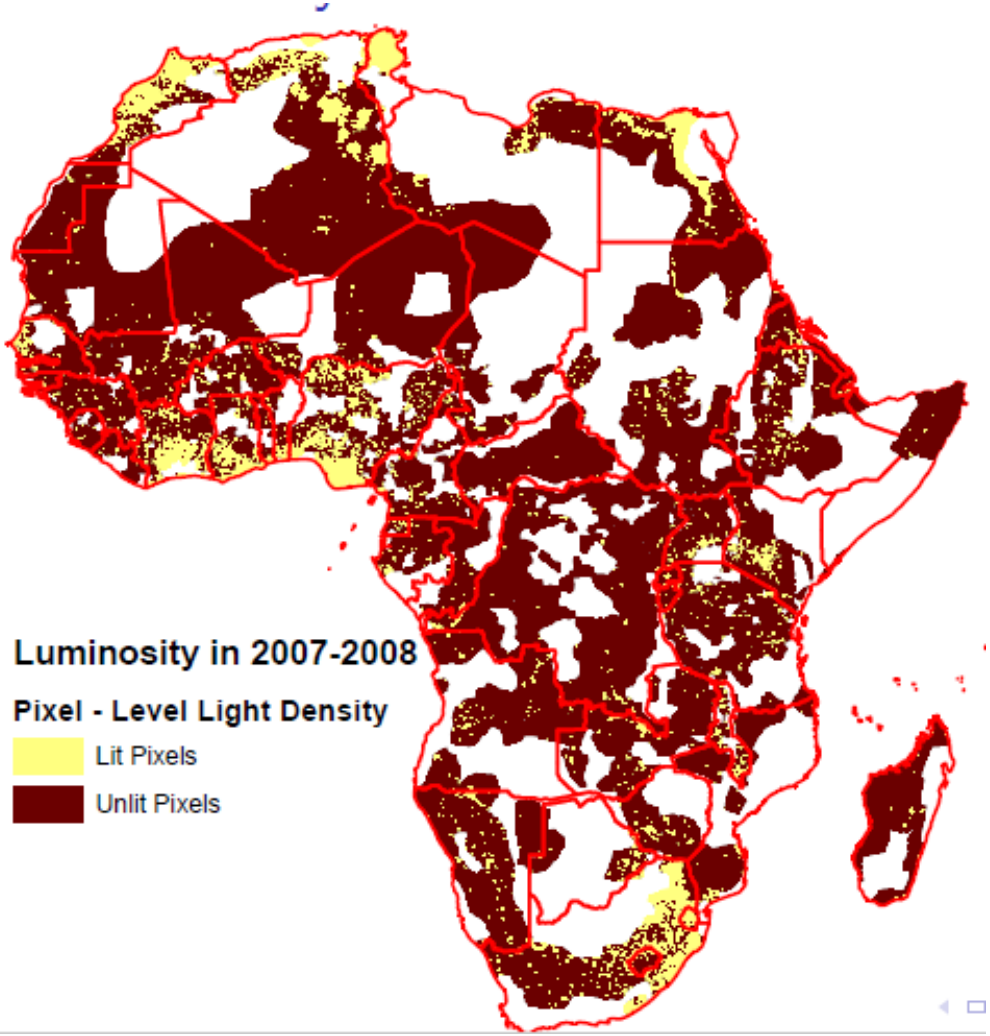
Ethnic Homeland Analysis. Michalopoulos and Papaioannou, ECMA 2013

- **Push on identification**
  - within country, across regions variation (account for observables, reduce error-in-variables)
- **Unit of analysis in Africa ethnicity (ancestral regions)**
  - conceptual and econometric benefits
  - measurement issues and challenges [groups overlap, hard-to define boundaries and concepts]

Spatial Unit of Analysis - Pixels

- **Explore the local variation in lights**
  - pixel-level analysis using areas of approximately the same size (12.5 x 12.5 degrees). Following Michalopoulos (AER 2012)
- **Merits**
  - account for non-linear nature of dependent variable [many zeros]
  - account for local features at an extremely fine level
  - account for inequality (capitals)

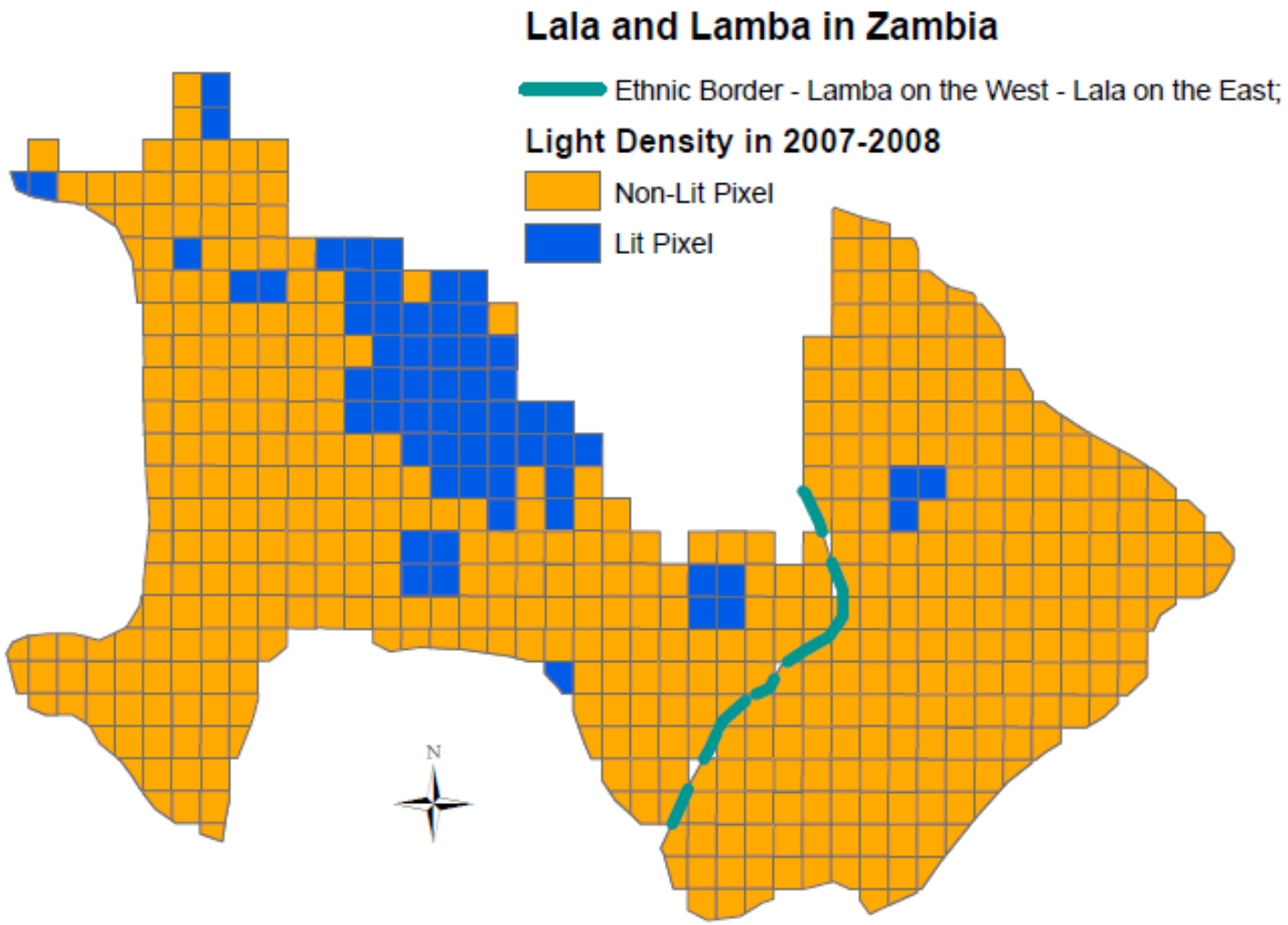
Distribution of Lit-Unlit Pixels



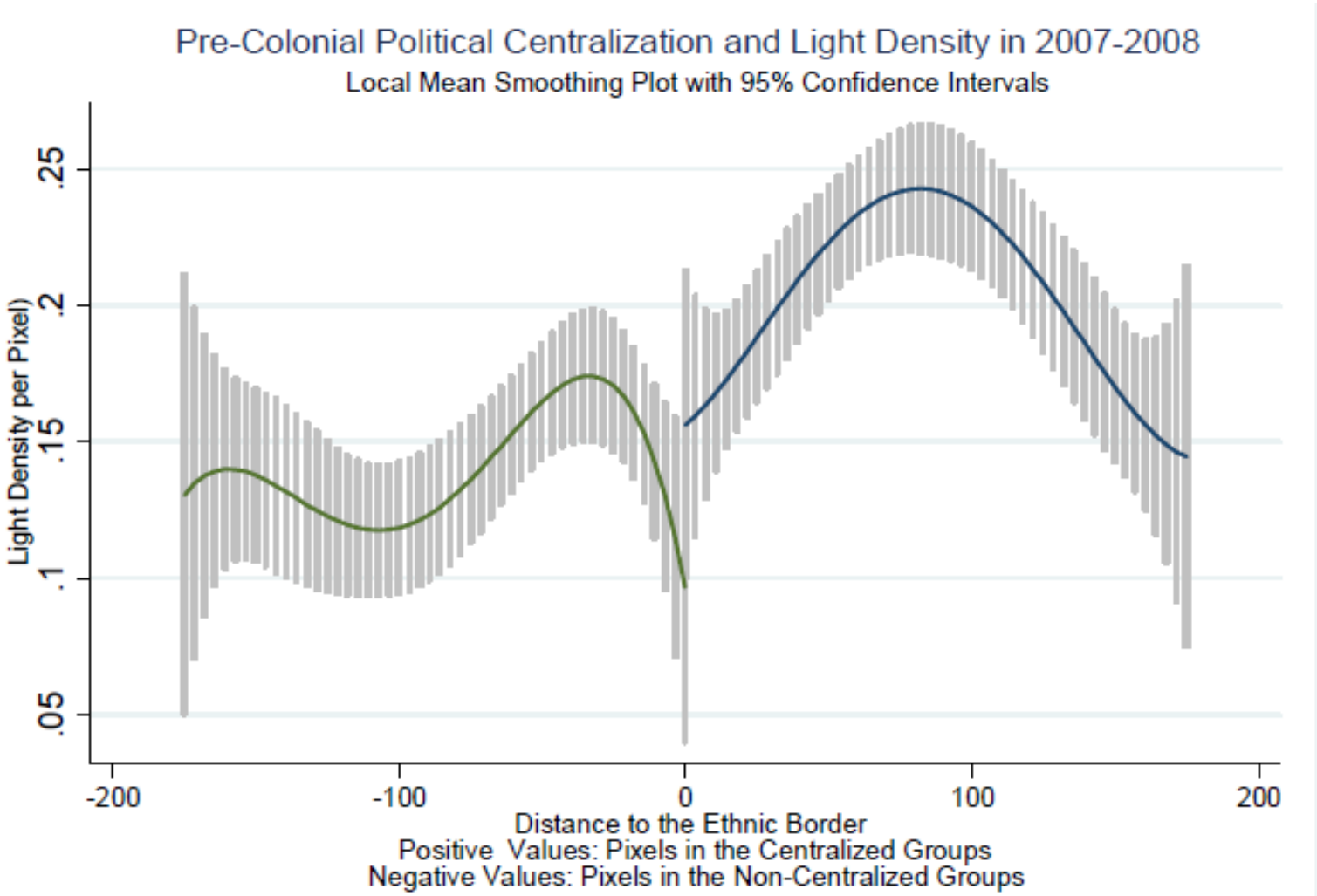
Advance on Causation. Contiguous Homeland Analysis

- **Examine differences in regional luminosity**
  - within adjacent ethnic homelands of different strength of precolonial political institutions
- **Merits**
  - further account for unobservable characteristics
  - no systematic differences in geography, natural resources, ecology, the disease environment across the ethnic boundary

Example


Lala and Lamba in Zambia
Ethnic Border - Lamba on the West - Lala on the East;
Light Density in 2007-2008
Non-Lit Pixel
Lit Pixel
N

Comparing Adjacent Groups



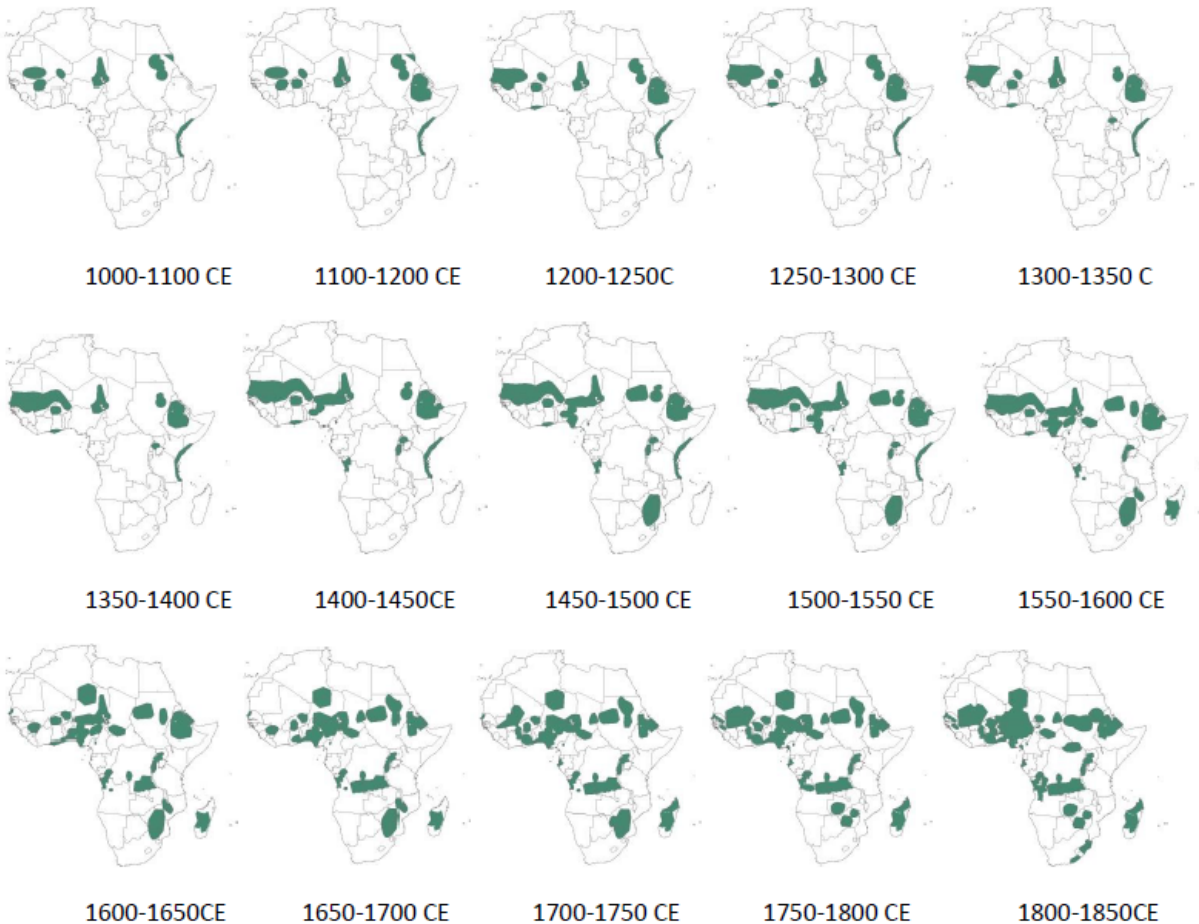
The Argument/Channels

- the pacifying role of centralization
- accountability of chiefs and cooperation across villages (Boone, 2003; Herbst, 2000; Gennaioli and Rainer, 2007)
- strong chiefs get more concessions from colonizers and after independence from national governments
- better property right protection (Bates, 1983; Acemoglu and Robinson 2012)

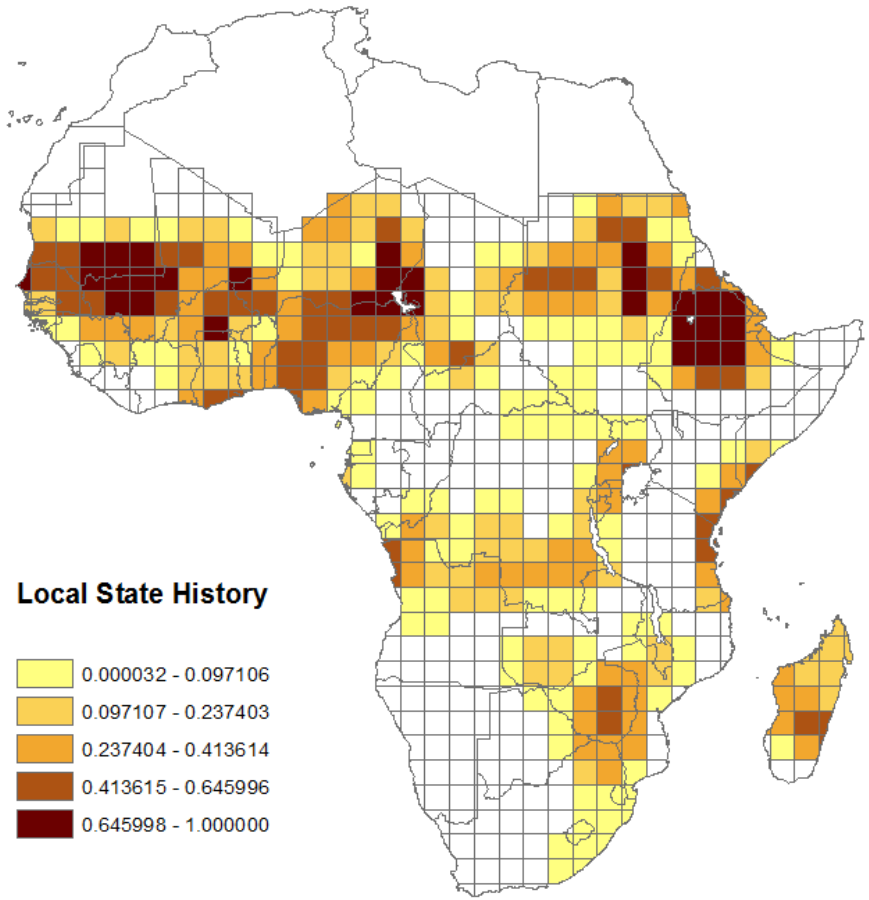
Precolonial Ethnic Institutions and Contemporary Conflict

- civil conflict is a recurrent characteristic post-independence (Bates, 2007; Blattman and Miguel, JEL 2010).
  - distrust; animosity; social/civic capital
- sizable within-country differences on conflict
- role of ethnic-specific features, political centralization, in particular.
  - Depetris-Chauvin (2016) and Wig (2016, 2018)

Precolonial Statehood across African Regions



State History Index [more work needed]



The Pacifying Effect of Precolonial Centralization

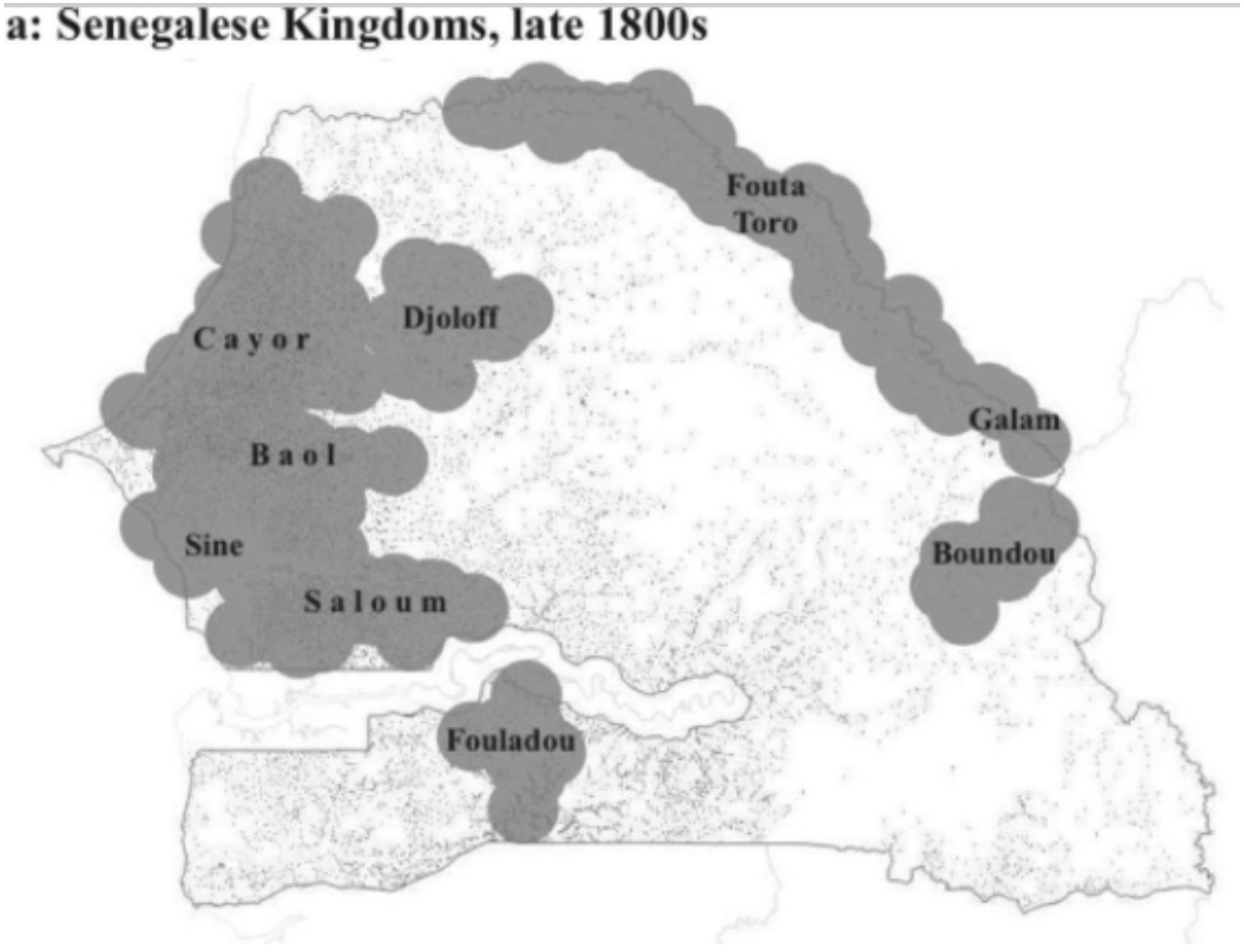
- Centralized groups have experienced, on average, less conflict the last 40 years
- Survey respondents in homelands of historically centralized groups report higher trust towards local policy makers and traditional leaders; state legitimacy appears higher [more work].
  - However, state legitimacy and a rule following culture can become a liability when the state becomes the perpetrator of atrocities like in the case of the genocide in Rwanda, Heldring (RESTUD 2019).

Elite Cohesion and Cross-Village Constraints

- Context: Senegal decentralization' reforms in 1996 provided local governments with fiscal resources and local councils given various responsibilities.
  - Basis of the study 350 in-depth interviews in 2013 across 56 traditional and local elected authorities in rural Senegal, by Martha Wilfahrt (2018)

Main Argument

Historic Settlement	Cross-village Elite Relations	Political Cleavages	Local Government Performance	Effect of In-Migration	Examples in Senegal
Precolonial state	High cohesion; strong social ties across villages from shared descent from precolonial state	Broad; elite cohesion prevents opportunism, broad majority shares spoils	Stronger; local state able to coordinate on projects and local government work, i.e. tax collection	Minimal; migrants 'adopted', existing elites control & broker political space	Louga, Fatick, Fouto Toro. *With in-migration:* Kaolack, Djoloff
Historically acephalous	Low cohesion; precolonial fragmentation continues with weak cross-village ties	Village capture; weak cross-village relations facilitate minority 'capture' of local state	Weaker; local state hampered by intra-elite splits. At extreme, significant blockage	Significant; generates competition between sub-groups, leads to group capture	Casamance, Kedougou. *With in-migration:* Tambacounda, *Terres Neuves*


a: Senegalese Kingdoms, late 1800s
Fouta
Toro
Djoloff
Cayor
Galam
Baol
Sine
Boundou
Saloum
Fouladou

Main Findings

Historic Settlement	I. Est. % Local Tax Raised	II. % Problem with Quorum	III. % Difficulty with Projects	IV. Concertation of Councilors	V. % Alleging Inequality	VI. % Believing Decentr. an Improvement
a. Precolonial state	51.2%	3%	59.4%	.12	14.2%	64.8%
		n=32		n=26	n=190	
b. Prec. State - In-migration only	57%	2.2%	62.5%	.104	17%	59.3%
		n=16		n=13	n=94	
c. Acephalous	9.9%	7.3%	79.2%	.141	28.8%	49.4%
		n=24		n=22	n=142	
d. Acephalous - In-Migration only	13.9%	3.5%	76.9%	.155	30.7%	51.9%
		n=14		n=13	n=78	

Precolonial Centralization not a Destiny!

- Interactions with colonial administration and post-independence governments mattered crucially [Ethnic Power Relations Database]
  - **Archibong (2019)**
    Context: Nigeria;
    Finding: Historically centralized regions in Nigeria lower access to certain public services;
    Mechanism: centralized leaders compliant with autocrats, received more federally-controlled services and vice versa.
  - **Bauer, Platas, Weinstein (2022)**
    Context: Across Africa;
    Finding: Islamic states in the precolonial era are worse off today compared to areas governed by traditional or Christian kingdoms.
    Mechanism: Limited colonial investments and no missionary activity.

Taking Stock

- **Message.** A dual institutional framework appears across many African regions and the quality of the relationship between the local actors and the national government seems to be mediated by the historical legacies of the groups/regions considered
- **Mechanisms.** Lots of exciting work has been done since we initially documented the positive association between local development and precolonial centralization but much remains to be uncovered
- **Heterogeneity.** We keep on learning ..
- **Issues**. Measurement error present in measures and maps. More inter-disciplinary work needed [see Chris Ehret's lecture in week 1]

Where do Pre-Colonial Institutions Come from?

Tomorrow Marcela Alsan and James Fenkse will tell us a lot about the origins

- For now, I yield the virtual floor to Warren and I look forward to his talk