On-line Supplementary Appendix

(not for publication)

Ethnic Inequality*

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Abstract

The Supplementary Appendix is split into four parts. Section 1 reports descriptive and summary statistics for the newly constructed measures reflecting inequality across ethnic homelands, administrative units, and 2.5 x 2.5 decimal-degree boxes. Section 2 reports a comprehensive set of sensitivity checks examining the association between ethnic inequality and cross-country comparative development. Section 3 gives further evidence and robustness checks on the origins of ethnic inequality. Section 4 offers additional results on the association between differences in geographic endowments across ethnic homelands, contemporary ethnic inequality, and comparative development.

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1 Descriptive Evidence

Appendix Table 1 reports the correlation structure between the newly constructed measures of inequality across

1. ethnic groups based on the *Atlas Narodov Mira* (GREG),
2. linguistic groups using *Ethnologue*'s mapping,
3. pixels-boxes of 2.5 x 2.5 decimal degree ("virtual countries/homelands"), and
4. first-level administrative units.

The table gives the correlation matrix for three different points in time (1992, 2000 and 2012), and for three different sets of variables (samples). The first sample (Panel A), comprises of all ethnic areas in each data set (GREG, *Ethnologue*, "virtual homelands/countries," and first-level administrative units); the second sample (Panel B) excludes from the construction of all inequality indexes areas where the capital cities fall; and the third sample (Panel C) constructs Gini coefficients using data only from "large" polygons, i.e., those that constitute at least 1% of the country's population in 2000.

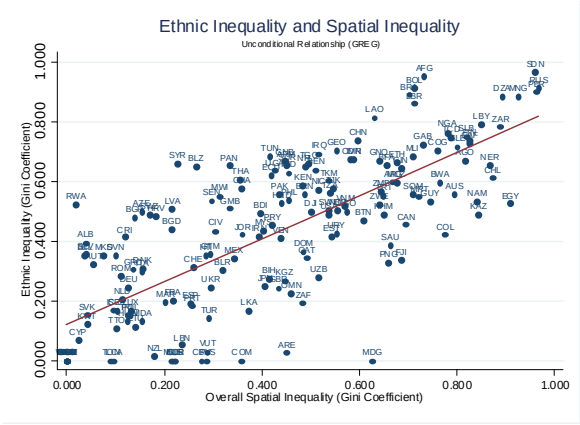
A couple of interesting patterns emerge. First, the correlation between the ethnic inequality proxies based on the *Atlas Narodov Mira* and *Ethnologue* is high, though far from perfect (around $0.65 - 0.75$). Second, all inequality measures (Gini coefficients) appear quite persistent over time, although there has been some moderate decline in the past decade (see Table 1).[1] Third, the index capturing the overall degree of spatial inequality (based on boxes of 2.5 x 2.5 decimal degrees) has a correlation coefficient with ethnic inequality (either based on GREG or the *Ethnologue*) of roughly 0.70, whereas the respective statistic capturing the correlation between ethnic inequality and inequality across first-level administrative units is lower, around 0.40.

Appendix Figures 1a and 1b provide a graphical illustration of the association between ethnic inequality and the index of spatial inequality, using the GREG and *Ethnologue* mappings, respectively.

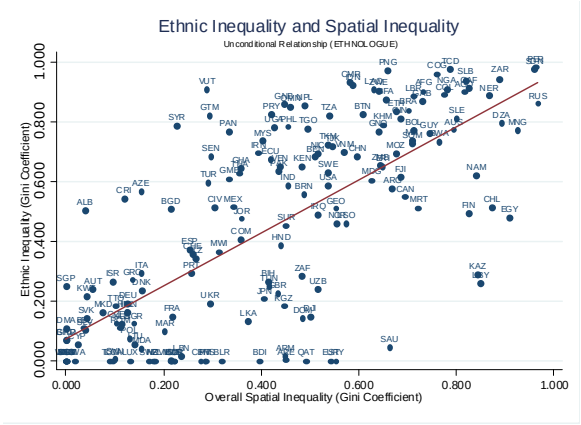
Likewise, Appendix Figures 2a−2d plot the ethnic Gini coefficients (estimated with GREG and *Ethnologue*) against the proxies of regional inequality based on first– and second-

[1] This may be driven by the expansion of electrification in many underdeveloped and developing nations (mostly in Africa and South Asia).

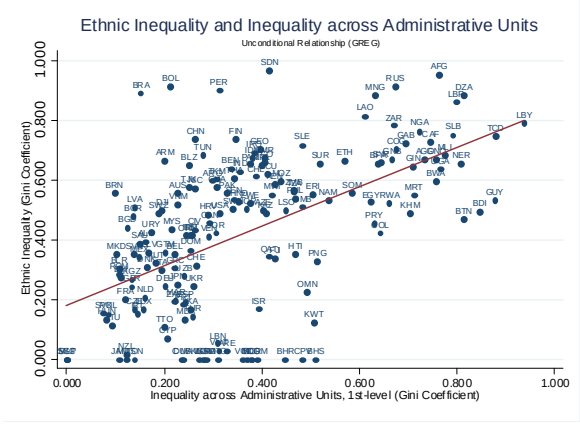
level administrative units. There is an evident positive association; yet the correlation is far from perfect.



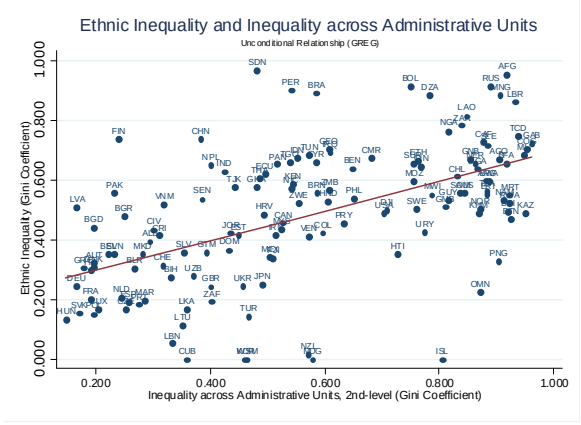
Appendix Figure 1a



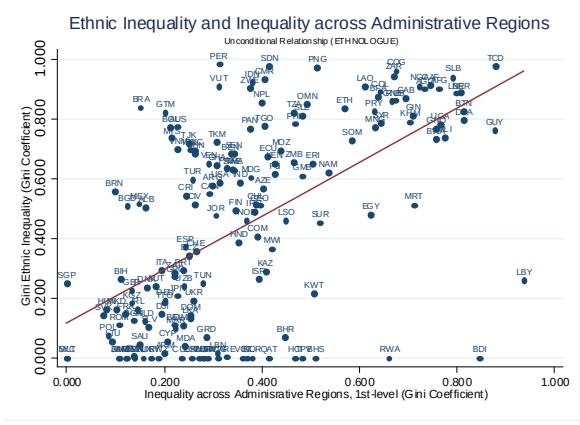
Appendix Figure 1b



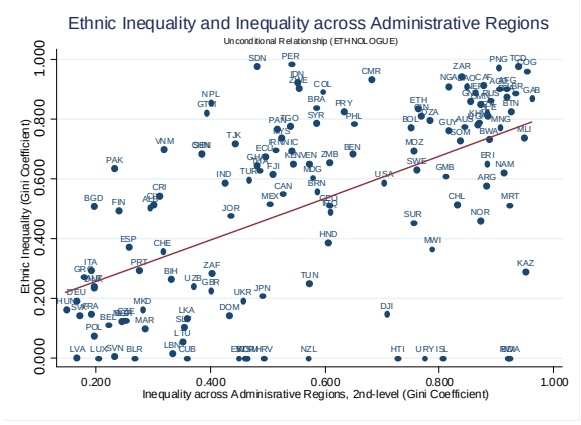
Appendix Figure 2a



Appendix Figure 2b



Appendix Figure 2c



Appendix Figure 2d

In Appendix Table 2 we examine the association between the newly constructed measures of ethnic and spatial inequality with (i) various measures of ethnic-linguistic diversity found by previous research to be significant correlates of comparative development (Panel A) and (ii) the level of economic development (as captured by the log of real GDP per capita in 2000) and a Gini coefficient index capturing income inequality (Panel B).[2] Panel A reveals that while the new measures of ethnic inequality correlate significantly with existing measures of ethnic diversity, they capture something beyond this dimension, as the correlation coefficients hover between $0.30 - 0.50$. The correlation between the new proxies of ethnic inequality and ethnic and linguistic segregation (Alesina and Zhuravskaya (2011)) or genetic diversity (Ashraf and Galor (2013)) are lower (around 0.20). The ethnic inequality measures correlate strongly (-0.50) with log GDP per capita, suggesting that under-development goes in tandem with an unequal distribution of riches across ethnic homelands. In contrast, the correlation between ethnic inequality and the standard measures (Gini coefficients) of income inequality is much lower, around 0.20.

2 Ethnic Inequality and Economic Development

We have performed numerous sensitivity checks to explore the robustness of our finding in Section 3 of the main part of the paper, showing a systematic negative association between ethnic inequality and economic development across countries.

2.1 Baseline Estimates without Regional Fixed Effects

In all specifications in the main tables, we include a vector of region fixed effects (constants not reported) so as to account for the sizable differences in comparative development and ethnic inequality across these macro regions.[3] Exploiting within-continent variation mitigates concerns that the uncovered relationship is driven by differences in economic performance and ethnic inequality across continents. Moreover, the inclusion of region-specific constants accounts for measurement error in the underlying maps (*Atlas Narodov Mira* and *Ethnologue*) on the spatial distribution of ethnic-linguistic groups around the world. For example, *Ethnologue*'s coverage in Latin America is limited whereas it is extremely detailed for African countries.

As one may wonder whether or not accounting for these differences across regions changes the observed pattern, we repeated estimation without including region fixed effects. In Appendix Tables 3a and 3b we replicate the baseline specifications (reported in Tables 2a and 2b), but omitting the region-specific constants. The association between cross-country comparative

[2] The Data Appendix lists detailed variable definitions and the respective sources.

[3] In our analysis, we follow World Bank's regional classification.

development and ethnic inequality is quite strong. And while the overall degree of spatial inequality and fragmentation enter sometimes significantly, the regressions clearly point out that it is inequality across ethnic homelands rather than the degree of spatial inequality or/and fractionalization that is the key feature of under-development (columns (2)-(9)). For example, the R^2 for the models associating log income per capita with the overall degree of spatial inequality (column (3)) and fractionalization (column (5)) is 0.176 and 0.11, respectively, much lower than the analogous in-sample statistic with the ethnic inequality index (0.24). Moreover, compared to the estimated coefficients in Tables 2a and 2b, the magnitude on the ethnic inequality index is quantitatively larger (most conservative estimates are -2 and -1.8 with GREG and *Ethnologue*), suggesting that the cross-continental relationship between ethnic inequality and comparative development is, if anything, stronger than the within-continent one we exploit in the main part of the paper.

2.2 Alternative Measures of Ethnic Inequality in Different Samples

In Appendix Table 4, we report specifications linking the natural logarithm of GDP per capita across countries to ethnic inequality when we exclude from the estimation *both* small in terms of population groups *and* homelands that host the capital cities. By doing so the sample of groups decreases substantially. For example, in the *Atlas Narodov Mira* when we exclude small groups, 65% of the mapped ethnicities are not taken into account, whereas for the *Ethnologue* the decline is even more dramatic; 82% of all mapped groups are less than 1% of their respective countries' populations and hence are not considered in the calculation of the ethnic Gini indexes. The resulting set of groups further dwindles when we drop, on the top of relatively small groups, those that host the capital cities (which may be multiple groups in few instances). This additional restriction results in losing 25% of the cross-country sample, including countries like Argentina or Armenia, for which there are no groups left to calculate ethnic Ginis for when these two restrictions are put into place. So the sample is now limited to 130 countries. Interestingly, even in this rather limited set of groups and countries economic disparities, as captured by differences in luminosity per capita remain an inverse correlate of under-development. In Panel A we present specifications without continental fixed effects whereas in Panel B we exploit within-continent variation. We also control for inequality in group size (both in terms of population and land area) to make sure that our estimates are not driven by differences in the size across groups. Using the *Ethnologue* mapping the negative relationship between ethnic inequality and comparative development is economically and statistically significant across all specifications whereas using the *Atlas Narodov Mira* mapping the results are somewhat weaker, though still the ethnic Gini index enters with a negative coefficient in all perturbations.

2.3 Excluding Single-Group Countries

In Appendix Table 5, we repeat the analysis, excluding countries that are populated by a single ethnic (GREG) or linguistic (*Ethnologue*) group. In Panel A we condition on the overall spatial inequality index constructed using pixels-boxes of 2.5 x 2.5 decimal degrees, while in Panel B we control for inequality across first-level administrative units. To further examine the stability of the estimates, we report results constructing inequality measures using all areas, dropping areas where capitals fall, and dropping polygons of small ethnicities/boxes/administrative units (defined as those with less than 1% of the country's population). Across all permutations the coefficient on the ethnic inequality (Gini) index is negative (around -1) and highly significant. This check explores the sensitivity of the association between ethnic inequality and comparative development with respect to the intensive margin of ethnic diversity. The results suggest that, looking at the latter, more ethnically unequal societies are also systematically less prosperous.

2.4 Using Radiance-Calibrated Levels of Luminosity

The underlying luminosity data are six-bit numbers ranging from 0 to 63.[4] A concern of this data series is the presence of top-coding which occurs in the urban cores of the developed world. In these instances the ethnic inequality measures may be biased downward, especially in rich countries with high urbanization (e.g., England, the US) where minorities (as defined by GREG and the *Ethnologue*) are more likely to reside in less densely populated territories.

To account for saturation of recorded luminosity in very densely populated areas, we have thus reconstructed all inequality measures, using as inputs the 2006 radiance-calibrated night-time lights that do not suffer from top-coding, and repeated the empirical analysis. Appendix Table 6 reports the results associating the log of real per capita GDP in 2006 with ethnic inequality using the radiance-calibrated luminosity data. In Panel A we condition on the index capturing the overall degree of spatial inequality based on pixels of 2.5 x 2.5 degrees and in Panel B we condition on the Gini coefficient capturing inequality across first-level administrative units. Using radiance-calibrated luminosity data has no material impact on our results. Across all permutations the ethnic inequality measures enter with a significant coefficient, implying that ethnic inequality is a key feature of under-development. Moreover, in line with our results in the main part of the paper (Table 6-Panel A), inequality in development across first-level administrative units is also a significant negative correlate of overall economic performance.

[4] For details on the luminosity data and some associated problems, see Henderson, Storeygard, and Weil (2012), Chen and Nordhaus (2011), among others.

2.5 Accounting for the Resolution of the Raw Population Estimates

We also examined the robustness of our estimates to the quality of the underlying population data used to construct the various inequality measures. The spatial resolution of the input (usually census) polygons used to create the Gridded Population of the World (GPW) varies across countries. The input polygons are subnational units (usually) at the administrative level with a varying degree of resolution. The GPW does not model or reallocate the population, but simply grids the data based on the original units at the smallest spatial size for which they are available. For example, the GPW version 3 –that we use in estimating population across different areas– uses a total of $399,747$ subnational units as inputs around the world.

It is likely that states collecting fine-grained level population data are different in a variety of dimensions compared to those that are not, for example, with respect to state capacity. An inaccurate measure of population at the group level is likely to lead to mismeasured estimates of luminosity per capita across groups potentially biasing our estimates. To mitigate such concerns, we control for the coarseness of the GPW inputs units, augmenting the baseline empirical model with the log of GPW "resolution" index. The resolution index can be thought of as the average "cell size" for each country if all units in a country were square and of equal size. The index is calculated as follows: Mean resolution in km = square root (country area / number of input units). Hence, a smaller "cell size," i.e., a lower resolution, indicates a higher quality of the underlying population estimates. Moreover, we constructed the mean population density of each input unit as well as the number of subnational input units per country. Conditional on the size and the total population of each country, these measures provide alternative proxies for the quality of population data coverage.

In Appendix Table 7, we add these proxies of the coarseness of input units regarding the construction of the population data sequentially to our specifications. Although in some specifications some of these proxies of the underlying data quality enter with significant point estimates,[5] across all perturbations ethnic inequality enters with a precisely estimated negative coefficient (range $-0.8/-1.2$), suggesting that the underlying quality of the population coverage is unlikely to be driving the observed association between ethnic inequality and under-development. In line with our baseline estimates, the index of the overall degree of spatial inequality enters with a negative though statistically insignificant coefficient (Panel A), further showing that it is inequality across ethnic homelands rather than the overall degree of spatial inequality that correlates with underdevelopment. The Gini coefficient capturing

[5] For example, the resolution index enters with a negative (and in some permutations) significant coefficient, implying that in countries with high quality population estimates (low resolution) development is higher. Likewise, the higher the number of administrative units used to compile the underlying population estimates, the higher development is.

inequality in luminosity per capita across first-level administrative units enters with a negative and significant estimate (Panel B), suggesting that underdevelopment coevolves both with ethnic inequality as well as inequality across politically defined units.

2.6 Using Alternative Local Population Estimates

The Gridded Population of the World (GPW) provides also an "adjusted" population density at the grid level series. The difference between this and the simple (unadjusted) measure is that for the adjusted population estimates at the grid level, the national-level populations from the United Nations have been used to adjust the population estimates. While it is unclear whether this adjustment reduces measurement error, and since in the benchmark tables we use the non-adjusted population estimates, in Appendix Table 8 we report estimates using the adjusted population series in the compilation of the inequality series in luminosity per capita. As in our previous robustness checks, in Panel A we condition on the overall spatial inequality index based on 2.5 x 2.5 decimal degree boxes, while in Panel B we account for inequality across first-level administrative units. All our results remain intact. Across all specifications, the ethnic inequality index enters with a statistically significant estimate. Moreover, there is also a significant negative association between inequality across first-level administrative units and income per capita.

2.7 Using Inequality Measures without Adjusting for Local Population

So far we have standardized luminosity of a homeland by its population to construct the country-level Gini coefficients. In this section we show that we obtain a similar pattern when we do not "standardize" light density by population, but account for differences in the size of ethnic homelands, pixels/boxes, and administrative units, by independently controlling for inequality in population and land area (as in Table 2). Using inequality in luminosity per square kilometer is useful for at least two reasons. First, we allow for a flexible association between development, luminosity, and population (without imposing any restriction a priori). Second, these inequality measures are not contaminated by the measurement error induced from the local population estimates. This approach is also closer to previous and parallel works that use average luminosity per square kilometer in levels (without dividing by local population) to proxy for development (e.g., Henderson, Storeygard, and Weil (2012), Hodler and Raschky (2014), Fenske (2013), and Michalopoulos and Papaioannou (2013), among others).

Appendix Table 9 gives the results. For completeness we report estimates both with the *Atlas Narodov Mira* mapping (columns (1)-(6)) and with the *Ethnologue* (columns (7)-(1)2); using observations from all ethnic homelands, pixels/boxes, and administrative units

(in columns (1), (4), (7), and (10)), but also excluding areas where capitals fall (in (2), (5), (8), and (11)) and small in terms of population areas (in (3), (6), (9), and (12)). Across all permutations using the *Ethnologue* groups the ethnic Gini index enters with a robust negative coefficient. The estimate (around -1.1 to -1.4) is also very similar to the baseline results (e.g., Tables $2-5$). The estimates associated with the *Atlas Narodov Mira* mappings are less precisely estimated and become insignificant when small groups are excluded.[6] The coefficient on the inequality measures capturing heterogeneity on the distribution of population (or land area) across ethnic homelands is in most permutations statistically indistinguishable from zero (coefficients not reported for brevity), further showing that it is inequality across ethnic lines in economic performance rather than size (population and area) that correlates with country-level development.

2.8 Ethnic Inequality at Different Levels of Linguistic Aggregation

One may wonder whether the inverse relationship between ethnic inequality and GDP per capita is robust to alternative definitions of linguistic cleavages. We examined this issue in detail. Our exploration is motivated by the informative work of Desmet, Ortuño-Ortín, and Wacziarg (2012), who show that the effects of linguistic diversity on various political economy outcomes (conflict, public goods, and economic growth) depend on the coarseness of linguistic aggregation upon which diversity measures are based.

This sensitivity check is feasible in the context of the *Ethnologue* as we may trace the entire linguistic tree of each group and hence we are able to aggregate languages at each node. *Ethnologue*'s linguistic aggregation ranges from level 15, which is the finest one (and the one we use in our baseline estimates), up to level 1, which is the coarsest level reporting the macro family of each group. To put these different linguistic cleavages into perspective, in our benchmark example (discussed in Section 2), Afghanistan has 39 groups at level 15 of *Ethnologue*'s aggregation while there are only 4 groups at the coarsest level 1. Out of the 39 linguistic groups, 4 belong to the Altaic family, one to the Dravidian, one to the Afro-Asiatic, and the rest to the Indo-European language family.

Besides exploring the role of ethnic inequality at various linguistic cleavages, performing the analysis at higher levels of aggregation is useful for two additional reasons. First, we further account for the fact that countries differ considerably in the number of linguistic groups. For

[6] A potential explanation for this pattern is the following. On the one hand, the *Ethnologue* maps the universe of any documented language within a country (at least for the Old World). Hence, small groups in *Ethnologue* may be extremely small and perhaps immaterial for understanding ethnic inequality in the country. On the other hand, the *Atlas Narodov Mira* maps only a fourth of the groups compared to *Ethnologue* presumably the larger and more important ones. This difference between the two mappings may explain why when dropping small groups from the *Ethnologue* the estimated coefficients are largely unaffected whereas dropping small groups from the *Atlas Narodov Mira* the resulting estimates become somewhat less precisely estimated.

example, as shown in Table 1, at the finest level (level 15) the average (median) number of groups across our sample of 173 countries is 42 (9) and the range is 1 to 809. However, at the most coarse level of linguistic aggregation the mean (median) number of groups is 3 (2) and the range is 1 to 19. Second, the analysis at high levels of linguistic aggregation assuages concerns that the results are influenced by the skewness of the land area distribution across groups. In particular, by treating languages belonging to the same linguistic family as a single group, when we perform the analysis further up the linguistic tree, the problem of having some very small groups is considerably attenuated.

Following Desmet, Ortuño-Ortín, and Wacziarg (2012), in Appendix Table 10 we repeat our specifications at three different levels of linguistic aggregation, namely at level 10 (columns (1)-(4)), at level 5 (columns (5)-(8)), and at level 1 (columns (9)-(12)).[7] For consistency in each specification we condition on the linguistic fractionalization index at the corresponding level of aggregation (using data from Desmet, Ortuño-Ortín, and Wacziarg (2012)). This empirical investigation reveals that ethnic inequality is a strong correlate of comparative development across different linguistic cleavages. The standardized "beta" coefficients (that summarize in terms of standard deviations the change in the outcome variable [log of per capita GDP] induced by a one-standard-deviation change in the ethnic inequality measures) across different levels of aggregation are comparable, ranging from 0.17 to 0.20.

This pattern suggests that economic differences both across linguistic groups that separated thousands of years ago as well as those that split relatively more recently translate into lower levels of development, highlighting the invariance of our benchmark findings to the level of linguistic aggregation. Moreover, in line with our baseline estimates, there is no systematic link between linguistic fractionalization and development at all levels of linguistic aggregation. If anything the association turns positive at the highest level of aggregation. This finding is in line with cross-country growth regression results of Desmet, Ortuño-Ortín, and Wacziarg (2012), who show that the negative link between fractionalization and output growth obtains only at very fine levels of linguistic aggregation.

2.9 Measurement Error in Groups' Location

To account for noise on the mapping of ethnic groups, we have been reporting in all tables regression estimates both with the *Ethnologue* and *Atlas Narodov Mira* maps. Nevertheless, few would disagree that both maps are drawn with measurement error regarding the exact location of the ethnolinguistic homelands. Moreover, the sources of these two maps are to a

[7] We follow the approach of Desmet, Ortuño-Ortín, and Wacziarg (2012), assuming that all living languages are equally distant from the root, where the distance between languages is defined by the number nodes separating them, i.e., we make the assumption that the tree is ultrametric.

first approximation distinct. On the one hand, the *Ethnologue* is published by SIL International, a Christian linguistic service organization, which studies numerous minority languages to facilitate language development (in an effort to translate the Bible). On the other hand, the GREG is based on the ethnic maps of Soviet ethnographers in the 1960s. To the extent that the measurement errors of these two mappings are uncorrelated (or weakly correlated) one may combine the two proxies of ethnic inequality in a two-stage-least-squares (2SLS) estimation, as this accounts for error-in-variables.[8]

In Appendix Table 11 we report 2SLS estimates. In the first five columns we "instrument" the ethnic inequality index based on GREG maps with the *Ethnologue*'s ethnic inequality measure, while in columns (6)-(10) we "instrument" the *Ethnologue*-based ethnic inequality proxies with the GREG-based measures.[9] Compared to the OLS estimates, the 2SLS coefficients are larger in absolute value, suggesting that our baseline results may be attenuated due to classical error-in-variables.

2.10 Historical Features

Since the LS specifications in Section 3 (Tables $2-7$ and Appendix Tables $3-11$) do not exploit random variation in ethnic inequality, they cannot be causally interpreted. Yet the evidence suggests that the association between ethnic inequality and comparative development is quite stable. In particular, the correlation does not seem to be driven by other features related to the societal structure (e.g., fractionalization, polarization, etc.; see Table 3) nor on observable geographic features (Table 4); moreover, bias from systematic measurement error seems not to be a major concern (as the association is found using alternative proxies of ethnic inequality). While the lack of exogenous variation makes it impossible to rule out omitted variables bias, in Appendix Table 12 we further controlled for some historical features that have been shown to affect contemporary economic performance. For completeness we present results conditioning on the Gini coefficient reflecting overall spatial inequality (Panel A) and inequality across administrative regions both at the first (Panel B) and second level (Panel C).

To account for differences in the colonial legacies, we control for the log population density circa 1500 CE and a dummy variable that identifies countries with a British common-law system. The former variable builds on the "reversal of fortune" idea put forward by Acemoglu, Johnson, and Robinson (2002), while the latter follows the work of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) on the impact of the legal tradition. To account for pre-colonial

[8] See Wooldridge (2002) and Krueger and Lindahl (2001) for an analogous exploration of the role of mismeasured schooling statistics on cross-country growth regressions.

[9] As the correlation of the two measures is strong (see Appendix Table 1) with unconditional correlations around 0.7, the first stage fit is quite strong across all specifications (the corresponding first-stage F-statistic comfortably exceeds 10).

conditions, following Ashraf and Galor (2013) and Putterman and Weil (2010), we also control for the log of the timing since the Neolithic revolution (ancestry adjusted) which takes into account the experience of contemporary inhabitants within a country regarding the transition to agriculture of their ancestors. Adding these historical controls has virtually no effect on the estimates. The coefficient on the ethnic inequality index is more than two standard errors below zero across all specifications. Moreover, the magnitude of the estimate is quite stable.

2.11 Regional Heterogeneity

The evidence produced so far points out that ethnic inequality is a robust and so far neglected correlate of cross-country economic performance. While the inclusion of region-fixed effects ensures that our finding is not driven by continental differences in development and ethnic/spatial inequality, it is interesting to examine whether some regions/continents are more important statistically than others in driving the association. For example, casual empiricism suggests that ethnicity is more salient in Africa, the Middle-East, and Asia, as compared to Western Europe. Moreover, in Europe and North America people of different groups often live in close proximity whereas for Asian and African countries groups' mixing is often low.

In Appendix Table 13 we examine the robustness of our findings when we drop iteratively countries of each main (World Bank) region. In columns (1) and (7) we drop observations from Western Europe and North America (USA and Canada). In columns (2) and (8) we exclude countries from East Asia and the Pacific (EAP) and South Asia (SA). In specifications (3) and (9) we do not consider countries in Sub-Saharan Africa. In columns (4) and (10) we drop countries from the Middle East and North Africa region. In columns (5) and (11) we exclude states from Eastern Europe and Central Asia, while in columns (6) and (12) we drop countries in Latin America and the Caribbean. The coefficient on the ethnic inequality index is negative and statistically significant across all permutations. This suggests that the main pattern we have established so far is not driven by a single region. Nevertheless, a closer examination reveals that the association between ethnic inequality and GDP per capita is stronger when we drop Western Europe and North America and somewhat weaker when we drop Asian countries and the Middle East and North Africa region.

More generally, one would expect our ethnic inequality index (as constructed) to be more accurate for regions like Africa, the Middle East, and Asia where groups are more clearly delineated and have little spatial overlap compared to countries in Western Europe and North America where segregation along ethnic-linguistic lines is low. In Appendix Table 14 we examine the association between development and ethnic inequality within each region. While the number of observations falls considerably –leading to imprecise estimates– there is clear

evidence that the relationship between ethnic inequality and GDP per capita is strongest for countries in East and South Asia,[10] the Middle East, and North Africa and Sub-Saharan Africa. In contrast, the association is virtually non-existent for Western Europe and North America. For countries in Eastern Europe and Central Asia, the association is negative but imprecisely estimated whereas for Latin American countries, the correlation depends on the underlying mapping of groups. Interestingly, when the GREG is used (which unlike *Ethnologue* reports the location of immigrant languages that are the majority groups in Latin America today) there is a negative and statistically significant association between ethnic inequality and comparative development.

3 On the Origins of Ethnic Inequality

3.1 Colonial Origins

Given the strong correlation between ethnic inequality and income per capita, we tried identifying the historical correlates of ethnic inequality, building on the literature assessing the legacy of colonization on contemporary development. Appendix Table 15 reports the results. Ethnic inequality does not seem to be driven by the legal framework that has been transplanted by colonizers (columns (1) and (6); see La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998)), the type of colonization and colonial institutions as reflected in settler mortality (columns (2) and (7); see Acemoglu, Johnson, and Robinson (2001)) or population density before colonization (columns (3) and (8); see Acemoglu, Johnson, and Robinson (2002)), the share of Europeans in the population (columns (4) and (9); see Hall and Jones (1999) and Putterman and Weil (2010)), and ethnic partitioning and border artificiality (columns (5) and (10); see Alesina, Easterly, and Matuszeski (2011)). These insignificant associations hint that the strong negative correlation between ethnic inequality and development does not reflect the role of colonial history.[11]

3.2 Geographic Origins

As we show in Table 7, differences in geographic attributes across groups explain a sizeable fraction of the variation in incomes across ethnic homelands (ethnic inequality). The geographic

[10] Since there are only 7 countries in South Asia (namely Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka), we merge this region with the East Asia region that includes 21 countries (e.g., Indonesia, Japan, Cambodia, Lao, Mongolia, China, Malaysia).

[11] There is also no systematic link between ethnic inequality and proxies of statehood (state antiquity index of Bockstette, Chanda, and Putterman (2002)) or early national institutions (as proxied by the average value of Polity's executive constraints index in the first decade after independence, see Acemoglu, Johnson, Robinson, and Yared (2008)).

features that we use in the main part of the paper are (average): land quality, temperature, precipitation, distance to the coast, and elevation.

In Appendix Table 17, we augment the set of geographic variables, adding two more attributes. Namely, the seasonality of temperature (measured as the difference between the annual maximum and minimum temperatures) and variability (standard deviation) of precipitation across ethnic homelands (Appendix Table 16 reports summary statistics). In line with our results in the main part of the paper (Table 7), in most specifications the various geographic Gini indicators enter with positive coefficients, suggesting that contemporary differences in development across ethnic lines (as captured by per capita luminosity) have a sizable geographic component. Regarding the new geographic covariates, inequality across ethnic homelands of the variability of precipitation is not systematically linked to ethnic inequality. However, the coefficient on the Gini index capturing inequality in temperature seasonality is positive and significant in all permutations. In countries where the temperature range differs greatly across ethnic territories, group inequality is also high. To the extent that a larger temperature range allows for a wider set of crops to be cultivated this may be a channel via which inequality in temperature seasonality may lead to differential economic performance across groups.[12]

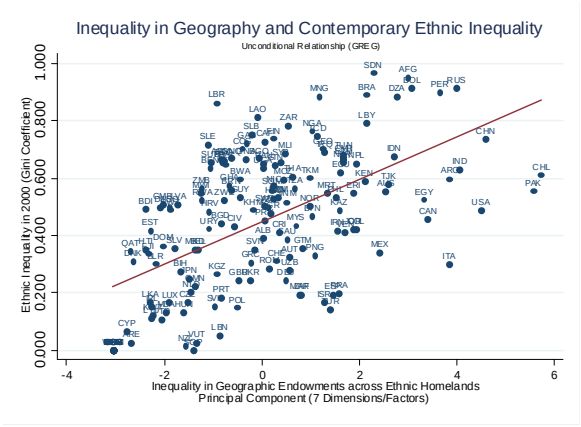
3.3 A Composite Index of Geographic Inequality across Ethnic Homelands based on a Richer Set of Variables

We investigated the robustness of our results in the second part of the paper (Section 4) linking inequality in geographic endowments across ethnic regions to contemporary differences in well-being across ethnic homelands (ethnic inequality) using a composite index that captures geographic differences across these seven geographic traits (average land quality, mean temperature, mean precipitation, distance to the coast, mean elevation, variability in precipitation, and seasonality in temperature). As in Section 4 we extract the first principal component of this richer set of geographic features and then examine its association with ethnic inequality. The first principal component explains approximately 45% to 50% of the common variance of the seven variables.

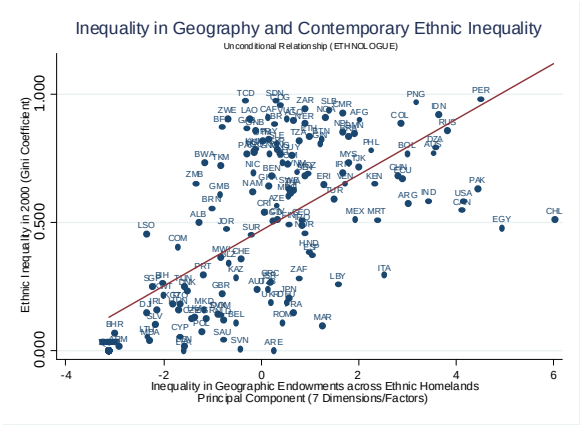
Using a richer set of geographic controls does not alter the pattern established in the main part of the paper. Appendix Figures 3a and 3b below illustrate the strong correlation between the composite index of inequality in geographic endowments across ethnic homelands and ethnic inequality with both the *Atlas Narodov Mira* and the *Ethnologue* mapping. The correlation retains economic and statistical significance when we condition on region-specific

[12] In the previous version we were also including inequality in water bodies across homelands. We no longer do so to avoid the issue of "blooming," i.e., the fact that water bodies may mechanically make luminosity appear higher in those regions (and not reflect economic performance).

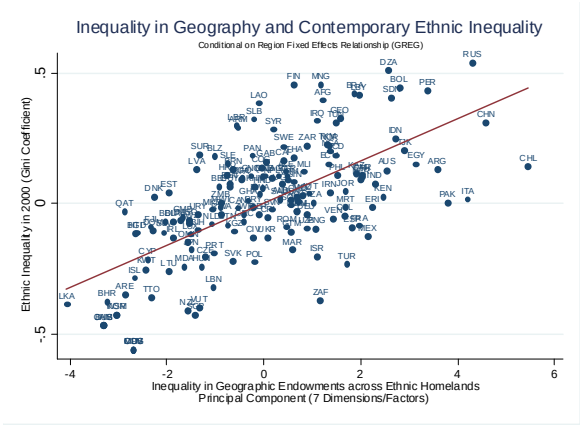
constants to account for the large differences in ethnic inequality and the variability of geographic endowments across macro regions (Appendix Figures 3c and 3d).



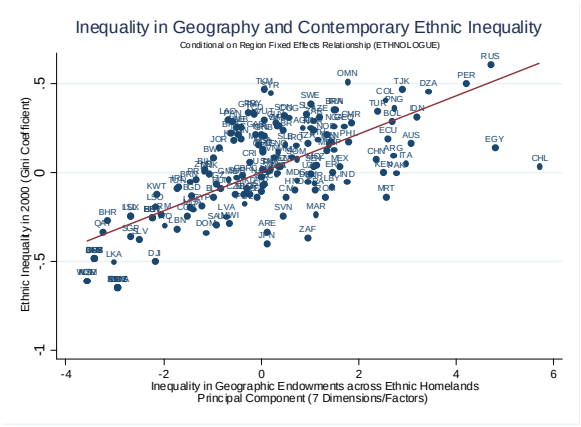
Appendix Figure 3a



Appendix Figure 3b



Appendix Figure 3c



Appendix Figure 3d

In Appendix Table 18 we associate contemporary ethnic inequality with the composite index capturing inequality in geographic endowments across ethnic homelands along these seven dimensions. The presentation of the results follows Table 9; the only difference being that the composite index of inequality in geography is estimated using seven instead of five variables. Across all specifications the composite index capturing inequality in geography across ethnic regions enters with a significant coefficient (around 0.10), pointing to the presence of a sizable geographic component of contemporary ethnic inequality. In line with the baseline estimates (Table 9), it is inequality in geography across ethnic homelands, rather than the overall degree of spatial inequality in geography or geographic inequality across first-level administrative units that explains the variation of ethnic inequality.

3.4 Other Robustness Checks

In Appendix Table 19 we associate ethnic inequality with the composite index reflecting inequality in geographic endowments across ethnic regions, conditioning also on the overall degree of spatial inequality in lights per capita (in odd-numbered columns) and inequality in lights per capita across first-level administrative regions (in even-numbered columns). The table reports results both when geographic inequality measure is estimated across five and across seven geographic inputs, respectively. Even in these quite restrictive specifications, the coefficient on the proxy of geographic differences across ethnic homelands enters positive and significant.

4 Inequality in Geography across Ethnic Lines, Ethnic Inequality, and Comparative Development

4.1 Ethnic-Specific Geographic Inequality and Development Conditional on Spatial/Administrative Inequality in Luminosity

In Appendix Table 20 we associate the log of per capita GDP in 2000 with the composite proxy of ethnic inequality across the (five) or (seven) geographic endowments, conditioning also on the overall degree of spatial inequality in lights per capita and inequality in lights per capita across first-level administrative regions. This allows us to examine whether ethnic inequality in geography relates to economic development, when we account for the association between income and spatial inequality either across randomly carved boxes or first-level administrative units. In line with our estimates in Table 2 and especially Table 5, spatial inequality in development and inequality in development across administrative units are significant correlates of GDP. Yet, inequality in geography across ethnic lines is also systematically linked to underdevelopment.[13]

4.2 Inequality in Geography across a Richer Set and Development

In Appendix Table 21 we examine the association between the log of per capita GDP and the composite index capturing inequality in geographic endowments across ethnic homelands using seven underlying geographic measures. This table is thus a "mirror" image of Table 10 (where we estimated the composite index of inequality in geographic endowments across ethnic homelands using five ethnic Ginis). Across all specifications the coefficient on the first principal component, across the seven geographic elements that capture inequality in endowments across ethnic homelands, is negative and highly significant.[14] The negative correlation

[13] Note that the lack of significance in two specifications is driven by the lack of precision in the estimation rather than a decline in the estimated coefficients.

[14] Bootstrap standard errors that account for the fact that the principal component is a "generated regressor" (containing estimation error) are very similar to White standard errors and are thus not reported for brevity.

between inequality in geographic endowments across ethnic homelands and development is not driven by the overall degree of spatial inequality in geography across these 7 dimensions nor by inequality in geographic endowments across first-level administrative units. The coefficients of these two proxies of spatial inequality in geography are small and statistically indistinguishable from zero. This further shows that it is inequality in geography across ethnic homelands rather than the overall spatial one that correlates with underdevelopment.

4.3 Geographic Inequality across Ethnic Homelands, Ethnic Inequality, and Development

Following the structure of Table 11, in Appendix Table 22 we examine whether the composite index capturing inequality in geographic endowments across ethnic homelands has additional power in explaining variation in the log of real GDP per capita beyond its association with ethnic inequality (in lights per capita). In this regard we estimate cross-country regressions associating the log of per capita GDP with both ethnic inequality (based on luminosity per capita) and inequality in geography across ethnic regions (along seven geographic features). The estimate on the Gini coefficient capturing ethnic inequality is negative (around -1.1) and significant at standard confidence levels. In contrast, the composite index capturing inequality in the seven geographic features across ethnic homelands enters with a small, unstable, and statistically indistinguishable from zero coefficient. These findings point out that the negative association between ethnic-specific geographic inequality and cross-country GDP per capita (shown in Table 10 and Appendix Tables $20-21$) operates primarily via shaping ethnic inequality (Table 9 and Appendix Tables $18-19$).

Since ethnic-specific inequality in geography does not seem to wield additional explanatory power on contemporary economic development once we account for ethnic inequality in well-being (as captured by the luminosity per capita), we also estimated 2SLS models that associate ethnic inequality with inequality in geography across ethnic homelands in the first-stage (Table 9 and Appendix Tables $18-19$) and the log of GDP p.c. with the predicted-by-geography component of ethnic inequality in the second-stage.

We should stress that this approach does not identify causal effects; yet it is useful as it allows us to study the association between the geographic-component of ethnic inequality and economic performance. Moreover, the 2SLS approach is useful in accounting for measurement error in the ethnic inequality measure, stemming, for example, from the fact that lights per capita may be an imperfect proxy of well-being. Appendix Table 23 reports the 2SLS estimates. For brevity, we report results using in the first-stage the principal component of ethnic inequality in geographic endowments across the five geographic features (elevation, land quality, distance to coast, precipitation, and temperature). The 2SLS estimates are negative and

significant across all specifications. The 2SLS magnitudes are quite similar to the LS estimates (in Tables $2-6$ and Appendix Tables $3-14$), implying that the component of ethnic inequality that is shaped by differences in geography across ethnic homelands is also a negative correlate of development.

4.4 Regional Heterogeneity

Motivated by the pattern shown in Appendix Tables $13-14$ suggesting that the relationship between ethnic inequality (as captured in lights per capita across ethnic-linguistic homelands) and comparative development (as captured in the logarithm of real GDP p.c.) is stronger in some regions compared to others, we similarly investigate whether the relationship between geographic inequality across ethnic regions and GDP per capita varies between macro regions. In Appendix Table 24 we drop iteratively a different macro region. The pattern is similar to the one uncovered in Appendix Table 13.

On the one hand, dropping Western Europe and North America (the US and Canada) in columns (1) and (7) increases the estimated magnitudes of the coefficient on the composite index reflecting inequality in geography across ethnic regions. On the other hand, for the *Ethnologue* when either South-East Asian countries or Sub-Saharan states are excluded then the link between ethnic-specific geographic inequality and GDP per capita weakens considerably and becomes insignificant. This is consistent with the idea that in regions where ethnic groups occupy territories with little overlap the relationship is likely to be stronger. In Appendix Table 25 we present some additional evidence on this by restricting estimation to the main World Bank regions. In spite of the sizable drop in the sample, the specifications show that the link between inequality in geographic endowments across ethnic homelands and income per capita is particularly strong in East and South Asia, the Middle East and North Africa, and to a lesser extent in Sub-Saharan African countries. In contrast (and in line with the results in Appendix Table 14), the link is absent in Western Europe and North America and quite weak in Latin America and the Caribbean region.[15]

[15] We should stress here that a proper examination of the role of ethnic inequality (in income or geography) on development (public goods provision, education, etc.) within regions requires the use of micro-level data. In Alesina, Michalopoulos, and Papaioannou (2014), for example, we examine in detail the role of between-group and also within-ethnicity inequality on various aspects of development across Sub-Saharan African countries using individual-level data from the Afrobarometer Surveys and the Demographic and Health Surveys. Exploiting within-country across-region variation we find that both aspects of inequality correlate with under-provision of public goods and low levels of education-literacy.

References

Acemoglu, D., S. Johnson, and J. A. Robinson (2001): "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, 91(5), 1369–1401.

——— (2002): "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution," *Quarterly Journal of Economics*, 107(4), 1231–1294.

Acemoglu, D., S. Johnson, J. A. Robinson, and P. Yared (2008): "Income and Democracy," *American Economic Review*, 98(3), 808–842.

Alesina, A., W. Easterly, and J. Matuszeski (2011): "Artificial States," *Journal of the European Economic Association*, 9(2), 246–277.

Alesina, A., and E. Zhuravskaya (2011): "Segregation and the Quality of Government in a Cross-Section of Countries," *American Economic Review*, 101(5), 1872–1911.

Alesina, A. F., S. Michalopoulos, and E. Papaioannou (2014): "Inequality in Africa," mimeo, Brown, Harvard and LBS.

Ashraf, Q., and O. Galor (2013): "The Out of Africa Hypothesis, Human Genetic Diversity, and Comparative Economic Development," *American Economic Review*, 103(1), 1–46.

Bockstette, V., A. Chanda, and L. Putterman (2002): "States and Markets: The Advantage of an Early Start," *Journal of Economic Growth*, 7(4), 347–369.

Chen, X., and W. D. Nordhaus (2011): "Using Luminosity Data as a Proxy for Economic Statistics," *Proceeedings of the National Academy of Sciences*, 108(21), 8589–8594.

Desmet, K., I. Ortuño-Ortín, and R. Wacziarg (2012): "The Political Economy of Ethnolinguistic Cleavages," *Journal of Development Economics*, 97(2), 322–338.

Fenske, J. (2013): "Does Land Abundance Explain African Institutions?," *Economic Journal*, 123(573), 1363–1390.

Hall, R. E., and C. I. Jones (1999): "Why Do Some Countries Produce So Much More Output Per Worker Than Others?," *Quarterly Journal of Economics*, 114(1), 83–116.

Henderson, V. J., A. Storeygard, and D. N. Weil (2012): "Measuring Economic Growth from Outer Space," *American Economic Review*, 102(2), 994–1028.

Hodler, R., and P. A. Raschky (2014): "Regional Favoratism," *Quarterly Journal of Economics*, 129(2).

Krueger, A. B., and M. Lindahl (2001): "Education for Growth: Why and For Whom?," *Journal of Economic Literature*, 39(4), 1101Ű1136.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1998): "Law and Finance," *Journal of Political Economy*, 106(6), 1113–1155.

Michalopoulos, S., and E. Papaioannou (2013): "Pre-colonial Ethnic Institutions and Contemporary African Development," *Econometrica*, 81(1), 113–152.

Putterman, L., and D. N. Weil (2010): "Post-1500 Population Flows and the Long-Run Determinants of Economic Growth and Inequality," *Quarterly Journal of Economics*, 125(4), 1627–1682.

Wooldridge, J. M. (2002): *Econometric Analysis of Cross Section and Panel Data*. MIT Press, Cambridge, MA.

Appendix Table 1: Correlation Structure - Regional Inequality Measures

Panel A: Ethnic Inequality Indicators (all ethnic areas)

	Ethnic Inequality Indicators - Gini Coefficients						Overall Spatial Inequality Indicators - Gini Coefficients				
	GREG			Ethnologue			Spatial Gini 1			Spatial Gini 2	
Ethnic Gini 2012 (GREG)	1										
Ethnic Gini 2000 (GREG)	0.9606*	1									
Ethnic Gini 1992 (GREG)	0.9215*	0.9305*	1								
Ethnic Gini 2012 (ETHN)	0.7436*	0.7176*	0.7468*	1							
Ethnic Gini 2000 (ETHN)	0.7411*	0.7276*	0.7583*	0.9874*	1						
Ethnic Gini 1992 (ETHN)	0.7569*	0.7424*	0.7797*	0.9634*	0.9709*	1					
Spatial Gini 2012	0.7048*	0.6988*	0.6219*	0.6992*	0.6903*	0.6802*	1				
Spatial Gini 2000	0.7271*	0.7494*	0.6577*	0.7122*	0.7144*	0.7024*	0.9671*	1			
Spatial Gini 1992	0.7137*	0.7331*	0.6840*	0.7279*	0.7315*	0.7467*	0.9100*	0.9386*	1		
1st Admin Unit Gini 2012	0.4537*	0.4766*	0.4245*	0.5397*	0.5369*	0.5045*	0.5814*	0.5748*	0.5866*	1	
1st Admin Unit Gini 2000	0.4869*	0.5430*	0.4816*	0.5687*	0.5811*	0.5484*	0.5877*	0.6241*	0.6308*	0.9334*	1
1st Admin Unit Gini 1992	0.4338*	0.4817*	0.4563*	0.5189*	0.5315*	0.5240*	0.5015*	0.5310*	0.6118*	0.8829*	0.9040*	1

Appendix Table 1: Correlation Structure - Cross-Country Measures

Panel B: Ethnic Inequality Indicators (excl. capitals)

	Ethnic Inequality Indicators - Gini Coefficients						Overall Spatial Inequality Indicators - Gini Coefficients					
	GREG			Ethnologue			Spatial Gini			Administrative Unit Gini		
Ethnic Gini 2012 (GREG)	1											
Ethnic Gini 2000 (GREG)	0.9658*	1										
Ethnic Gini 1992 (GREG)	0.8806*	0.8940*	1									
Ethnic Gini 2012 (ETHN)	0.6281*	0.6248*	0.5918*	1								
Ethnic Gini 2000 (ETHN)	0.6421*	0.6493*	0.6105*	0.9865*	1							
Ethnic Gini 1992 (ETHN)	0.6238*	0.6344*	0.6525*	0.9391*	0.9457*	1						
Spatial Gini 2012	0.5640*	0.5560*	0.4386*	0.6185*	0.6169*	0.5745*	1					
Spatial Gini 2000	0.5736*	0.5880*	0.4708*	0.6277*	0.6338*	0.5965*	0.9639*	1				
Spatial Gini 1992	0.6092*	0.6178*	0.5214*	0.6423*	0.6510*	0.6191*	0.9038*	0.9277*	1			
1st Admin Unit Gini 2012	0.3881*	0.3961*	0.3005*	0.5888*	0.5804*	0.5267*	0.5357*	0.5113*	0.5217*	1		
1st Admin Unit Gini 2000	0.4057*	0.4413*	0.3423*	0.6068*	0.6106*	0.5674*	0.5404*	0.5403*	0.5590*	0.9213*	1	
1st Admin Unit Gini 1992	0.3738*	0.4008*	0.3098*	0.5908*	0.6108*	0.5695*	0.4743*	0.4755*	0.5363*	0.8262*	0.8551*	1

Appendix Table 1: Correlation Structure - Cross-Country Measures

Panel C: Ethnic Inequality Indicators (excl. small areas)

	Ethnic Inequality Indicators - Gini Coefficients					Overall Spatial Inequality Indicators - Gini Coefficients					
	GREG			Ethnologue		Spatial Gini				Administrative Unit Gini	
Ethnic Gini 2012 (GREG)	1										
Ethnic Gini 2000 (GREG)	0.9586*	1									
Ethnic Gini 1992 (GREG)	0.9176*	0.9458*	1								
Ethnic Gini 2012 (ETHN)	0.7586*	0.7394*	0.7435*	1							
Ethnic Gini 2000 (ETHN)	0.7509*	0.7676*	0.7659*	966	1						
Ethnic Gini 1992 (ETHN)	0.7772*	0.7767*	0.8030*	939	0.9578*	1					
Spatial Gini 2012	0.6459*	0.6326*	0.6339*		0.7054*	0.7183*	0.688	1			
Spatial Gini 2000	0.6703*	0.7091*	0.6758*		0.6912*	0.7381*	0.692	0.9393*	1		
Spatial Gini 1992	0.7025*	0.7219*	0.7407*		0.6823*	0.7202*	0.734	0.8961*	0.9254*	1	
1st Admin Unit Gini 2012	0.5633*	0.5595*	0.5580*		0.6139*	0.6182*	0.588	0.6534*	0.6273*	0.6177*	1
1st Admin Unit Gini 2000	0.5955*	0.6396*	0.6162*		0.6095*	0.6553*	0.610	0.6544*	0.7144*	0.6788*	0.9147*
1st Admin Unit Gini 1992	0.5805*	0.6041*	0.6335*		0.5592*	0.5871*	0.605	0.5662*	0.6000*	0.7006*	0.8505*

1		
1		
0.8797*	1	

The table gives the correlation structure of the main ethnic inequality, overall spatial inequality and administrative unit inequality measures (Gini coefficients) in 1992, 2000, and 2012. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) in Panel A we use all ethnic (linguistic) homelands and pixels/admin units; in Panel B we exclude ethnic areas, pixels and administrative units where capital cities fall; in Panel C we exclude small polygons (ethnic groups, pixels and admin units) consisting of less than one percent of a country's population. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. * indicate statistical significance at the 5% level.

Appendix Table 2: Correlation Structure - Cross-Country Measures

Panel A: Ethnic Inequality Indicators and Measures of Fractionalization

Ethnic Gini - All (GREG)	1											
Ethnic Gini - All (ETHN)	0.7276*	1										
Spatial Gini	0.7494*	0.7144*	1									
1st Admin Unit Gini	0.5430*	0.5811*	0.6241*	1								
2nd Admin Unit Gini	0.5454*	0.5525*	0.6971*	0.7954*	1							
Ethnic Fragmentation	0.4410*	0.4675*	0.4252*	0.4099*	0.3976*	1						
Ethno-linguistic Fragmentation	0.3774*	0.5407*	0.3676*	0.3472*	0.3042*	0.6607*	1					
Cultural Fragmentation	0.2910*	0.4738*	0.3754*	0.3637*	0.4214*	0.8575*	0.7432*	1				
Ethno-linguistic Polarization	0.1260	0.0894	0.1176	-0.0134	-0.1124	0.3065*	0.4837*	0.1972*	1			
Ethnic Segregation	0.2231*	0.4563*	0.1828	0.3425*	0.1528	0.4813*	0.4026*	0.4527*	0.1196	1		
Linguistic Segregation	0.1941	0.3856*	0.2073*	0.2138*	0.0725	0.3945*	0.3752*	0.3674*	0.1781	0.8422*	1	
Genetic Diversity	-0.0388	-0.1587*	-0.0335	0.1864*	0.0936	0.1595*	0.1858*	0.1567	0.079	-0.0398	0.0012	1

Panel B: Ethnic Inequality Indicators and Economic Development

Ethnic Gini - All (GREG)	1											
Ethnic Gini - Excl. Capitals (GREG)	0.8984*	1										
Ethnic Gini - Excl. Small (GREG)	0.6566*	0.5569*	1									
Ethnic Gini - All (ETHN)	0.7276*	0.6687*	0.6925*	1								
Ethnic Gini - Excl. Capitals (ETHN)	0.6965*	0.6493*	0.7078*	0.9803*	1							
Ethnic Gini - Excl. Small (ETHN)	0.5982*	0.5564*	0.7676*	0.8286*	0.7890*	1						
Spatial Gini 2000	0.7494*	0.6114*	0.5284*	0.7144*	0.6837*	0.6277*	1					
1st Admin Unit Gini 2000	0.5430*	0.4441*	0.5605*	0.5811*	0.6383*	0.6101*	0.6241*	1				
Ethnic (Thiessen-based) Gini in 2000	0.8695*	0.7634*	0.7062*	0.7871*	0.7467*	0.7075*	0.7808*	0.6834*	1			
Liguistic (Thiessen-based) Gini in 2000	0.7271*	0.6605*	0.6949*	0.9272*	0.8916*	0.8547*	0.7546*	0.6583*	0.8056*	1		
Income Inequality (Gini coeff.)	0.2064*	0.2194*	0.3059*	0.3660*	0.3584*	0.3922*	0.2838*	0.2437*	0.2307*	0.3448*	1	
Log real GDP p.c. in 2000	-0.4915*	-0.4748*	-0.6303*	-0.5140*	-0.5518*	-0.5833*	-0.4253*	-0.5146*	-0.5048*	-0.4979*	-0.3751*	1

The table gives the correlation structure of the main ethnic inequality, overall spatial inequality and administrative unit inequality measures (Gini coefficients) and various proxies of ethnic-lingustic fractionalization/polarization (Panel A) and GDP p.c. and income inequality (Panel B). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. * indicate statistical significance at the 5% level.

Appendix Table 3A - Baseline Estimates without Conditioning on Regional Fixed Effects
Ethnic Inequality and Economic Development (in 2000), Atlas Narodov Mira

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ethnic Inequality	-2.5681***		-2.0601***		-2.6496***	-2.0993***	-3.3627***	-2.8471***	-2.4603***
[Gini Coeff., GREG]	(0.3397)		(0.5496)		(0.5120)	(0.6919)	(0.6410)	(0.6890)	(0.7290)
Spatial Inequality		-2.1470***	-0.6551			-0.6501	-0.2609	-0.1954	-1.4042**
[Gini Coeff., Pixels]		(0.3454)	(0.5499)			(0.5516)	(0.5319)	(0.5366)	(0.6693)
Log Number of Ethnicities				-0.4379***	0.0276	0.012		-0.4133**	-0.4623**
[GREG]				(0.0877)	(0.1248)	(0.1265)		(0.1598)	(0.1891)
Ethnic Inequality in Population							0.7470	1.7874*	1.4896
[Gini Coeff., GREG]							(0.9926)	(1.0541)	(1.2038)
Ethnic Inequality in Size (Area)							0.7782	0.6454	0.4621
[Gini Coeff., GREG]							(0.9689)	(0.9453)	(1.1242)
Log Land Area									0.2732**
									(0.1063)
Log Population									-0.1692*
									(0.0860)
Adjusted R-squared	0.237	0.176	0.24	0.113	0.233	0.236	0.286	0.312	0.334
Observations	173	173	173	173	173	173	173	173	173
Region Fixed Effects	No	No	No	No	No	No	No	No	No

Appendix Table 3B - Baseline Estimates without Conditioning on Regional Fixed Effects
Ethnic Inequality and Economic Development (in 2000), Ethnologue

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ethnic Inequality	-2.0943***		-1.7490***		-2.4589***	-2.0770***	-2.8063***	-2.5199***	-2.7707***
[Gini Coeff., ETHNO]	(0.2600)		(0.3663)		(0.4746)	(0.5891)	(0.4420)	(0.6007)	(0.6468)
Spatial Inequality		-2.1470***	-0.5989			-0.5521	-0.6136	-0.6649	-1.5692***
[Gini Coeff., Pixels]		(0.3454)	(0.4536)			(0.4651)	(0.4434)	(0.4514)	(0.5780)
Log Number of Languages				-0.3317***	0.0893	0.0738		-0.0856	-0.006
[ETHNO]				(0.0558)	(0.0960)	(0.0978)		(0.1075)	(0.1150)
Ethnic Inequality in Population							3.2020***	3.2731***	2.9952***
[Gini Coeff., ETHNO]							(1.0201)	(1.0229)	(1.0699)
Ethnic Inequality in Size (Area)							-1.7462*	-1.6562*	-1.4419
[Gini Coeff., ETHNO]							(0.9802)	(1.0012)	(1.0558)
Log Land Area									0.2618**
									(0.1005)
Log Population									-0.2657***
									(0.0980)
Adjusted R-squared	0.26	0.176	0.262	0.153	0.259	0.26	0.319	0.317	0.347
Observations	173	173	173	173	173	173	173	173	173
Region Fixed Effects	No	No	No	No	No	No	No	No	No

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands. In Table 2A we use the digitized version of the Atlas Narodov Mira (GREG) to aggregate lights per capita across ethnic homelands. In Table 2B we use the digitized version of the Ethnologue database to aggregate lights per capita across linguistic homelands. The overall spatial inequality index (Gini coefficient) captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. The log number of ethnicities in columns (4)-(6), (8), and (9) denotes the logarithm of the number of ethnic and linguistic groups in each country according to the Atlas Narodov Mira (in Appendix Table 3A) and the Ethnologue (in Appendix Table 3B). Columns (7), (8), and (9) include as controls a Gini index capturing inequality in population across ethnic (linguistic) homelands and a Gini index capturing inequality in land area across ethnic (linguistic) homelands. Column (9 includes the log of country's land area and the log of population in 2000. The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 4 - Sensitivity Checks
Using Ethnic Inequality Measures (Ginis) Excluding Capitals and Small Ethnic Areas

Panel A: Results without Region Fixed Effects

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality [Gini Coeff.]	-3.2403*** (0.4479)	-2.4914*** (0.6471)	-2.9049*** (0.7465)	-2.2328*** (0.7411)	-2.9802*** (0.3796)	-2.4754*** (0.5645)	-2.7908*** (0.6162)	-2.3727*** (0.5916)
Log Number of Ethnicities		-0.2652 (0.1605)	-0.3927* (0.2318)	-0.4130* (0.2234)		-0.1749 (0.1356)	-0.1626 (0.1776)	-0.201 (0.1706)
Ethnic Inequality in Population [Gini Coeff.]			1.2659 (0.7961)	0.8275 (0.7961)			0.4346 (0.8277)	-0.1364 (0.8014)
Ethnic Inequality in Size (Area) [Gini Coeff.]			-0.0966 (0.7481)	0.3218 (0.7023)			-0.0093 (0.8533)	-0.1779 (0.7912)
Log Land Area			0.0014 (0.0917)	0.0646 (0.1044)			0.0280 (0.0809)	0.1484 (0.0980)
Log Population			-0.0315 (0.1071)	-0.0672 (0.1063)			-0.0721 (0.0881)	-0.1010 (0.0897)
Adjusted R-squared	0.301	0.307	0.302	0.36	0.31	0.32	0.299	0.404
Observations	130	130	130	130	135	135	135	135
Region Fixed Effects	No	No	No	No	No	No	No	No
Geographic Controls	No	No	No	Yes	No	No	No	Yes

Appendix Table 4 - Sensitivity Checks
Using Ethnic Inequality Measures (Ginis) Excluding Capitals and Small Ethnic Areas

Panel B: Results with Region Fixed Effects

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality [Gini Coeff.]	-0.8032*	-0.5303	-1.1680*	-0.6806	-1.1470***	-0.9509*	-1.4828***	-1.0113*
	(0.4488)	(0.6053)	(0.6336)	(0.5835)	(0.3989)	(0.5272)	(0.5584)	(0.5229)
Log Number of Ethnicities		-0.1066	-0.0601	-0.0738		-0.0861	0.0001	-0.0181
		(0.1265)	(0.1822)	(0.1704)		(0.1113)	(0.1402)	(0.1319)
Ethnic Inequality in Population [Gini Coeff.]			0.6940	0.5183			0.0664	-0.0790
			(0.6465)	(0.5874)			(0.6238)	(0.5473)
Ethnic Inequality in Size (Area) [Gini Coeff.]			0.3697	0.4961			0.5665	0.2795
			(0.6368)	(0.5199)			(0.5906)	(0.5342)
Log Land Area			0.0169	0.0160			0.0355	0.0232
			(0.0580)	(0.0722)			(0.0727)	(0.0899)
Log Population			-0.1450**	-0.1351*			-0.1608*	-0.1268
			(0.0709)	(0.0734)			(0.0897)	(0.0899)
Adjusted R-squared	0.631	0.63	0.651	0.71	0.63	0.63	0.641	0.705
Observations	130	130	130	130	135	135	135	135
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	No	No	Yes	No	No	No	Yes

Both panels of the table report cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, excluding from the calculation regions where capitals fall and regions with less than 1% of country's population. In columns (1)-(4) we use the digitized version of the Atlas Narodov Mira (GREG) to aggregate lights per capita (and land area and population) across ethnic homelands. In columns (5)-(8) we use the digitized version of the Ethnologue database to aggregate lights per capita (and land area and population) across linguistic homelands. The overall spatial inequality index (Gini coefficient) captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. The log number of ethnicities (languages) in columns (2), (3), (4), (6), (7), and (8) denotes the logarithm of the number of ethnic (linguistic) groups in each country according to Atlas Narodov Mira (Ethnologue). Columns (3)-(4) and (7)-(8) include as controls a Gini index capturing inequality in population across ethnic (linguistic) homelands, a Gini index capturing inequality in land area across ethnic (linguistic) homelands, the log of country's land area and the log of population in 2000. Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, and land quality for agriculture. All specifications in Panel B include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 5 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2000)
Excluding Countries with One Ethnic-Linguistic Group

Panel A: Conditioning on Spatial Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.3783***	-0.9542***	-0.9295**	-0.6244*	-1.4354***	-0.9174*	-1.1037***	-0.8049***	-0.8048**	-0.5831*	-1.0774***	-0.9159**
[Gini Coeff.]	(0.4219)	(0.3595)	(0.3897)	(0.3296)	(0.5169)	(0.4937)	(0.3400)	(0.3011)	(0.3432)	(0.2982)	(0.4100)	(0.4042)
Spatial Inequality	-0.7132	-0.6392*	-1.4001***	-1.2436***	-1.4813**	-1.0471	-0.9893**	-0.7880**	-1.5569***	-1.3437***	-1.4952**	-0.7564
[Gini Coeff.]	(0.4328)	(0.3777)	(0.4171)	(0.3733)	(0.6403)	(0.6446)	(0.4089)	(0.3976)	(0.3654)	(0.3662)	(0.6036)	(0.6524)
Ethnic/Linguistic	-0.0913	0.2224	0.0647	0.3395	0.2768	0.423	-0.3454	-0.0216	-0.3539	-0.0314	-0.318	0.0194
Fragmentation	(0.3602)	(0.3333)	(0.3485)	(0.3093)	(0.3432)	(0.3768)	(0.3174)	(0.2999)	(0.3029)	(0.2765)	(0.2947)	(0.2951)
adjusted R-square	0.682	0.744	0.694	0.757	0.6945	0.7428	0.689	0.737	0.710	0.755	0.692	0.734
Observations	152	152	151	151	152	152	148	148	144	144	148	148
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Table 5 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2000)
Excluding Countries with One Ethnic-Linguistic Group

Panel B: Conditioning on Administrative Unit Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.1735***	-0.9256**	-0.9815***	-0.7259**	-1.2549**	-0.8817*	-0.9147**	-0.6334*	-0.8360**	-0.6353*	-0.8395*	-0.6625
[Gini Coeff.]	(0.3982)	(0.3573)	(0.3582)	(0.3169)	(0.5573)	(0.5118)	(0.3723)	(0.3540)	(0.3608)	(0.3246)	(0.4907)	(0.5250)
Admin Unit Inequality	-1.4610***	-1.0285**	-1.3226***	-0.8784**	-1.7591***	-1.1507**	-1.1282**	-0.9060*	-0.7911*	-0.5346	-1.6200**	-1.0804
[Gini Coeff.]	(0.4177)	(0.4355)	(0.4380)	(0.4185)	(0.5649)	(0.5716)	(0.4895)	(0.5000)	(0.4536)	(0.4622)	(0.6693)	(0.6896)
Ethnic/Linguistic	-0.0799	0.1892	0.0105	0.269	0.2273	0.3764	-0.2945	0.0135	-0.3323	-0.0069	-0.2433	0.0556
Fragmentation	(0.3520)	(0.3302)	(0.3678)	(0.3402)	(0.3726)	(0.3758)	(0.3070)	(0.2895)	(0.3241)	(0.2972)	(0.2891)	(0.2840)
Adjusted R-squared	0.704	0.752	0.691	0.744	0.709	0.747	0.692	0.739	0.682	0.731	0.698	0.7358
Observations	152	152	151	151	152	152	148	148	146	146	148	148
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

The table reports cross-country OLS estimates focusing on countries with more than one ethnic groups (in columns (1)-(6)) and more than one linguistic group (in columns (7)-(12)). The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In all specifications in Panel A we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In all specifications in Panel B we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) in columns (1), (2), (7) and (8) we use all ethnic (linguistic) homelands (and pixels); in columns (3), (4), (9) and (10) we exclude ethnic areas (and pixels) where capital cities fall; in columns (5), (6), (11) and (12) we exclude polygons (linguistic, ethnic, boxes) consisting of less than one percent of a country's population. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). The specifications in even-numbered columns also include as controls a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 6 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2006)
Using Radiance-Calibrated Luminosity Data in 2006

Panel A: Conditioning on Spatial Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.2650***	-0.7839**	-1.0233**	-0.6613*	-1.3172***	-0.7765	-1.0570***	-0.8247***	-0.7603**	-0.6209**	-1.1360***	-0.9815**
[Gini Coeff.]	(0.4163)	(0.3532)	(0.4169)	(0.3486)	(0.4807)	(0.4830)	(0.3331)	(0.2934)	(0.3496)	(0.2889)	(0.3991)	(0.3773)
Spatial Inequality	-0.8860**	-0.9756**	-1.4314***	-1.3008***	-1.5483***	-1.1846**	-0.9687**	-0.9530**	-1.6246***	-1.4556***	-1.4912***	-0.9819*
[Gini Coeff.]	(0.4045)	(0.3780)	(0.3910)	(0.3791)	(0.5296)	(0.5923)	(0.4054)	(0.3761)	(0.3586)	(0.3777)	(0.5009)	(0.5331)
Ethnic/Linguistic	0.0217	0.1406	0.1205	0.2829	0.4129	0.3273	0.0209	0.1373	-0.3364	-0.0604	0.1454	0.1908
Fragmentation	(0.3713)	(0.3453)	(0.3770)	(0.3646)	(0.3741)	(0.3688)	(0.3123)	(0.2803)	(0.3189)	(0.3004)	(0.2816)	(0.2659)
adjusted R-square	0.654	0.715	0.691	0.749	0.671	0.710	0.660	0.720	0.712	0.755	0.669	0.7152
Observations	173	173	155	155	173	173	173	173	147	147	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Table 6 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2006)
Using Radiance-Calibrated Luminosity Data in 2006

Panel B: Conditioning on 1st-Level Administrative Unit Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.0557***	-0.7832**	-1.0210***	-0.7056**	-1.1692**	-0.7248*	-0.7924**	-0.6931**	-0.8243**	-0.7236**	-0.8754**	-0.7605**
[Gini Coeff.]	(0.3733)	(0.3349)	(0.3814)	(0.3419)	(0.4703)	(0.4414)	(0.3295)	(0.2988)	(0.3681)	(0.3340)	(0.4099)	(0.3799)
Admin Unit Inequali	-1.7614***	-1.4909***	-1.3258***	-0.8974**	-2.0918***	-1.7235***	-1.7194***	-1.4135***	-0.9019**	-0.5973	-2.0410***	-1.5665***
[Gini Coeff.]	(0.3997)	(0.4171)	(0.4194)	(0.4152)	(0.4487)	(0.5079)	(0.4321)	(0.4410)	(0.4548)	(0.4752)	(0.4711)	(0.5266)
Ethnic/Linguistic	0.0915	0.1470	0.1391	0.3207	0.4078	0.3043	-0.0400	0.0431	-0.2910	-0.0104	0.0535	0.0920
Fragmentation	(0.3612)	(0.3404)	(0.3904)	(0.3836)	(0.3727)	(0.3709)	(0.2897)	(0.2764)	(0.3301)	(0.3177)	(0.2676)	(0.2632)
Adjusted R-squared	0.690	0.733	0.686	0.731	0.670	0.716	0.689	0.734	0.682	0.726	0.695	0.7309
Observations	173	173	156	156	173	173	173	173	149	149	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2006. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In all specifications in Panel A we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In all specifications in Panel B we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. For the construction of all Gini coefficients we use radiance-calibrated luminosity data in 2006. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) in columns (1), (2), (7) and (8) we use all ethnic (linguistic) homelands (and pixels); in columns (3), (4), (9) and (10) we exclude ethnic areas (and pixels) where capital cities fall; in columns (5), (6), (11) and (12) we exclude polygons (linguistic, ethnic, boxes) consisting of less than one percent of a country's population. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). The specifications in even-numbered columns also include as controls a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 7: Ethnic Inequality and Economic Development (in 2000)
Accounting for the Resolution of the Underlying Population Estimates at the Grid Level

Panel A: Conditioning on Spatial Inequality

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality	-1.2630***	-1.2715***	-1.2614***	-1.2437***	-1.0405***	-1.0374***	-1.0448***	-1.1216***
[Gini Coeff.]	(0.3737)	(0.3737)	(0.3742)	(0.3794)	(0.2917)	(0.2935)	(0.2907)	(0.2978)
Spatial Inequality	-0.4018	-0.4133	-0.3890	-0.4423	-0.5880	-0.6077	-0.5714	-0.5883
[Gini Coeff., Pixels]	(0.4226)	(0.4251)	(0.4206)	(0.4252)	(0.4135)	(0.4170)	(0.4118)	(0.4136)
Ethnic Fragmentation	-0.0667	-0.0668	-0.0700	-0.0541	-0.0055	-0.0160	-0.0018	0.0484
	(0.3539)	(0.3535)	(0.3548)	(0.3563)	(0.2902)	(0.2925)	(0.2905)	(0.2858)
Log Resolution	-0.1400*			-1.1819	-0.1401*			-1.4133
	(0.0795)			(1.3582)	(0.0814)			(1.2799)
Log Admin Population		-0.0587		0.6793		-0.0568		0.8098*
		(0.0401)		(0.4427)		(0.0414)		(0.4134)
Log Admin Units			0.0761*	0.1534			0.0771*	0.1674
			(0.0406)	(0.3135)			(0.0415)	(0.2826)
Adjusted R-squared	0.663	0.661	0.664	0.669	0.666	0.664	0.667	0.676
Observations	173	173	173	173	173	173	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Appendix Table 7: Ethnic Inequality and Economic Development (in 2000)
Accounting for the Resolution of the Underlying Population Estimates at the Grid Level

Panel B: Conditioning on Administrative Level Inequality

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality	-0.9914***	-1.0023***	-0.9840***	-0.9790***	-0.7761**	-0.7745**	-0.7766**	-0.8583***
[Gini Coeff.]	(0.3616)	(0.3605)	(0.3618)	(0.3686)	(0.3105)	(0.3110)	(0.3098)	(0.3132)
Admin Unit Inequality	-1.4663***	-1.4726***	-1.4660***	-1.4928***	-1.4664***	-1.4778***	-1.4630***	-1.4538***
[Gini Coeff., Pixels]	(0.4134)	(0.4148)	(0.4147)	(0.4113)	(0.4352)	(0.4373)	(0.4366)	(0.4267)
Ethnic Fragmentation	-0.0297	-0.0295	-0.0330	-0.0184	-0.0784	-0.0882	-0.0747	-0.027
	(0.3398)	(0.3398)	(0.3403)	(0.3442)	(0.2691)	(0.2708)	(0.2692)	(0.2665)
Log Resolution	-0.1289*			-1.0488	-0.1326*			-1.1939
	(0.0742)			(1.0631)	(0.0765)			(1.0184)
Log Admin Pop		-0.0532		0.6673*		-0.0538		0.7553**
		(0.0375)		(0.3455)		(0.0389)		(0.3302)
Log Admin Units			0.0716*	0.2030			0.0742*	0.2196
			(0.0381)	(0.2548)			(0.0391)	(0.2328)
adjusted R-square	0.689	0.688	0.691	0.696	0.689	0.688	0.691	0.699
observations	173	173	173	173	173	173	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(4) and on the Ethnologue in columns (5)-(8). In all specifications in Panel A we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In all specifications in Panel B we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) we use all ethnic (linguistic) homelands (and pixels). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In columns (1), (4), (5) and (8) we control for the log of GPW (Gridded Population of the World) "resolution" index, defined as the mean resolution in km = square root (country area / number of input units). In columns (2), (4), (6), and (8) we control for the log of the mean population density of each input unit. In columns (3), (4), (7), and (8) we control for the log of the number of subnational input units per country. All data come from the Gridded Population of the World. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(4) comes from Alesina et al. (2003) and the linguistic fragmentation index in (5)-(8) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 8 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2000)
Using Adjusted-Modified Population Estimates at the Grid Level

Panel A: Conditioning on Spatial Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.3072***	-0.9142***	-0.9497**	-0.6360*	-1.5163***	-0.9908**	-1.0548***	-0.7762***	-0.8260**	-0.6272**	-1.1205***	-0.9454**
[Gini Coeff.]	(0.3772)	(0.3294)	(0.3866)	(0.3274)	(0.4575)	(0.4490)	(0.3041)	(0.2906)	(0.3274)	(0.2912)	(0.3994)	(0.3955)
Spatial Inequality	-0.4974	-0.5822	-1.3306***	-1.2175***	-1.3667**	-1.1163*	-0.6992*	-0.7029*	-1.5374***	-1.3474***	-1.3985**	-1.0382*
[Gini Coeff.]	(0.4281)	(0.3703)	(0.4134)	(0.3710)	(0.6163)	(0.6206)	(0.4191)	(0.3834)	(0.3510)	(0.3549)	(0.6178)	(0.6084)
Ethnic/Linguistic	-0.0555	0.1411	0.0671	0.3183	0.3542	0.3786	-0.0430	0.1076	-0.3756	-0.0619	0.01	0.1421
Fragmentation	(0.3510)	(0.3145)	(0.3377)	(0.3009)	(0.3566)	(0.3442)	(0.2955)	(0.2663)	(0.2946)	(0.2687)	(0.2698)	(0.2525)
Adjusted R-squared	0.660	0.724	0.695	0.760	0.680	0.729	0.662	0.724	0.715	0.760	0.672	0.7281
Observations	173	173	155	155	173	173	173	173	147	147	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Table 8 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2000)
Using Adjusted-Modified Population Estimates at the Grid Level

Panel B: Conditioning on Administrative Unit Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.0800***	-0.8332**	-0.9958***	-0.7234**	-1.2460**	-0.7939*	-0.8059**	-0.6264**	-0.9021**	-0.7233**	-0.8789**	-0.7528*
[Gini Coeff.]	(0.3577)	(0.3220)	(0.3589)	(0.3176)	(0.4911)	(0.4582)	(0.3172)	(0.2945)	(0.3486)	(0.3210)	(0.4046)	(0.4068)
Admin Unit Inequality	-1.4349***	-1.1969***	-1.1993***	-0.7973**	-1.8003***	-1.4850***	-1.4354***	-1.1917***	-0.7244*	-0.4824	-1.8822***	-1.4558***
[Gini Coeff.]	(0.4071)	(0.4263)	(0.4255)	(0.3995)	(0.5212)	(0.5404)	(0.4391)	(0.4533)	(0.4354)	(0.4471)	(0.5115)	(0.5416)
Ethnic/Linguistic	-0.0122	0.1414	0.0543	0.3032	0.3056	0.3198	-0.1183	0.0214	-0.3657	-0.0441	-0.0504	0.0802
Fragmentation	(0.3393)	(0.3062)	(0.3580)	(0.3321)	(0.3506)	(0.3423)	(0.2751)	(0.2595)	(0.3167)	(0.2933)	(0.2516)	(0.2431)
Adjusted R-squared	0.685	0.740	0.689	0.744	0.700	0.741	0.684	0.736	0.686	0.734	0.695	0.7413
Observations	173	173	156	156	173	173	173	173	149	149	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In all specifications in Panel A we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In all specifications in Panel B we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) in columns (1), (2), (7) and (8) we use all ethnic (linguistic) homelands (and pixels); in columns (3), (4), (9) and (10) we exclude ethnic areas (and pixels) where capital cities fall; in columns (5), (6), (11) and (12) we exclude polygons (linguistic, ethnic, boxes) consisting of less than one percent of a country's population. For the construction of all ethnic, spatial, and administrative region inequality (Gini) indexes we use adjusted population estimates at the grid-level using data from the GPW (Gridded Population of the World). The difference between the adjusted and the simple (unadjusted) measure is that for the adjusted population estimates at the grid level the national-level population from the United Nations have been used to adjust the population estimates. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). The specifications in even-numbered columns also include as controls a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 9 - Sensitivity Checks:
Using Ethnic, Spatial, and Administrtaive Unit Inequality Measures Not Stanadrdized with Local Population

	Atlas Narodov Mira (GREG)						Ethnologue					
	All	No Capitals	No Small	All	No Capitals	No Small	All	No Capitals	No Small	All	No Capitals	No Small
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.1198**	-1.0942**	0.0116	-0.6825*	-0.5900	-0.3526	-1.9891***	-1.6342***	-1.2208***	-1.2599***	-1.5423***	-1.1564***
[Gini Coeff.]	(0.4595)	(0.4697)	(0.3955)	(0.3977)	(0.4397)	(0.3693)	(0.4825)	(0.4619)	(0.3834)	(0.3971)	(0.4900)	(0.3554)
Spatial Inequality	-0.6976	-0.9922	-2.2895***				-0.2029	-1.5635***	-1.6242**			
[Gini Coeff., Pixe	(0.5124)	(0.6784)	(0.6329)				(0.5615)	(0.4960)	(0.6421)			
Admin Unit Inequality				-2.3850***	-1.4033**	-1.9697***				-2.1376***	-1.0795*	-1.7585***
[Gini Coeff.]				(0.3985)	(0.5588)	(0.3957)				(0.3797)	(0.5488)	(0.3778)
Fragmentation	0.3049	0.1248	0.4749	0.2626	0.1784	0.2825	0.3269	0.0497	0.4176	0.1489	-0.0506	0.2246
	(0.3305)	(0.3389)	(0.3442)	(0.3211)	(0.3521)	(0.3365)	(0.2710)	(0.2799)	(0.2761)	(0.2370)	(0.3011)	(0.2477)
Adjusted R-square	0.718	0.724	0.735	0.773	0.747	0.755	0.737	0.767	0.746	0.783	0.751	0.768
Observations	173	156	173	173	156	173	173	148	173	173	150	173
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights (luminosity in levels) across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In all specifications we also include Gini coefficients that reflect inequality on population across ethnic (linguistics) areas/homelands and inequality on land area (size) across ethnic (linguistics) areas/homelands, as depicted using the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In columns (1)-(3) and (7)-(9) we condition on overall spatial inequality (Gini coefficient) that captures the degree of spatial inequality in lights (luminosity in levels) across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). These specifications also include a Gini index capturing inequality on population across pixels/boxes and a Gini index capturing inequality in land area (size) across pixels/boxes. In columns (4)-(6) and (10)-(12) we condition on the administrative Gini index that reflects inequality in lights (luminosity) across first-level administrative regions. These specifications also include a Gini index capturing inequality on population and a Gini index capturing inequality in land area (size) across first-level administrative units. For the construction of ethnic inequality, spatial inequality, and administrative-unit inequality (Gini coefficients) in lights (luminosity in level), population, and land area in columns (1), (4), (7) and (10) we use all ethnic (linguistic) homelands, pixels, and administrative units; in columns (2), (5), (8) and (11) we exclude ethnic areas, pixels and administrative units where capital cities fall; in columns (3), (6), (9) and (12) we exclude ethnic areas, pixels, and administrative units consisting of less than one percent of a country's population. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in columns (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in columns (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls) and a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 10 - Sensitivity Checks : Ethnic Inequality and Economic Development (in 2000)
Estimating Ethnic Inequality at Various Levels of Linguistic Distance
Using Ethnologue's Linguistic Tree

	Level 10				Level 5				Level 1			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.0994***	-1.1025***	-0.7084**	-0.5248*	-1.0681***	-1.0531***	-0.7539***	-0.5604*	-1.4059***	-1.5610***	-1.0018***	-0.8854**
[Gini Coeff.]	(0.2257)	(0.2571)	(0.2874)	(0.2966)	(0.2279)	(0.2539)	(0.2654)	(0.2882)	(0.2878)	(0.3090)	(0.3420)	(0.3457)
Spatial Inequality			-0.7695**				-0.8347**				-0.8647**	
[Gini Coeff.]			(0.3763)				(0.3739)				(0.3777)	
Admin Unit Inequality				-1.3054***				-1.2913***				-1.2878***
[Gini Coeff.]				(0.4555)				(0.4659)				(0.4409)
Linguistic		0.0071	0.1116	0.0225		-0.0540	0.1589	0.0464		0.6542*	0.7784**	0.6458**
Fragmentation		(0.2922)	(0.2634)	(0.2573)		(0.2872)	(0.2531)	(0.2592)		(0.3536)	(0.3183)	(0.3067)
"Beta" coefficient	-0.266	-0.267	-0.172	-0.127	-0.240	-0.236	-0.169	-0.126	-0.235	-0.261	-0.168	-0.148
Adjusted R-squared	0.648	0.646	0.722	0.736	0.642	0.640	0.724	0.737	0.641	0.646	0.732	0.744
Observations	173	173	173	173	173	173	173	173	173	173	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rich Set of Controls	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across linguistic homelands, based on the digitized version of the Ethnologue mapping. In columns (1)-(4) we perform the analysis at level 10 of Ethnologue's linguistic aggregation, in columns (5)-(8) at level 5 and in columns (9)-(12) at level 1 (most coarse level). In columns (3), (7), and (11) we control for the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In columns (4), (8), and (12) we control for the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In specifications (2)-(4), (6)-(8), and (10)-(12) we control for linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group at the respective level of aggregation. Data come from Desmet et al. (2013). Specifications in columns (3), (4), (7), (8), (11), and (12) include as controls log land area, log population in 2000, a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction. All specifications include regional fixed effects (constants not reported). The table also reports the standardized "beta" coefficient that summarize in terms of standard deviations the change in the outcome variable (log of per capita GDP) induced by a one-standard-deviation change in the ethnic inequality measures. The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 11 - Sensitivity Checks: Accounting for Measurement Error in the Mapping of Ethnic Groups.
2SLS Estimates

	Atlas Narodov Mira (GREG)					Ethnologue				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ethnic Inequality	-1.9734***	-3.0455***	-2.2512***	-2.3947***	-1.6974**	-1.6493***	-2.4995***	-2.0584***	-2.0133***	-1.6860**
[Gini Coeff.]	(0.3653)	(0.6543)	(0.6261)	(0.8135)	(0.7419)	(0.2874)	(0.5740)	(0.5946)	(0.6980)	(0.7030)
Spatial Inequality				0.2408					-0.0687	
[Gini Coeff.]				(0.5280)					(0.4443)	
Admin Unit Inequality					-0.9640*					-0.8187
[Gini Coeff.]					(0.5077)					(0.5491)
F-statistic First-stage	47.97	22.37	21.57	14.60	20.76	47.97	22.37	21.57	14.60	20.76
Observations	173	173	173	173	173	173	173	173	173	173
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Geographic Controls	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes

The table reports cross-country 2SLS (two stage least squares) estimates that aim at accounting for measurement error in the mapping of ethnic/linguistic homelands. The dependent variable in the second stage is the log of real GDP per capita in 2000. The dependent variable in the first stage is the ethnic Gini coefficient that reflects inequality in lights per capita across ethnic (linguistic) homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(5) and on the Ethnologue in columns (6)-(10). The main independent variable in the first stage ("instrument") is the ethnic Gini coefficient that reflects inequality in lights per capita across linguistic (ethnic) homelands, based on the digitized version of the Ethnologue in columns (1)-(5) and on the Atlas Narodov Mira (GREG) in columns (6)-(10). In columns (5) and (9) we control for the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In columns (5) and (10) we control for the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. Specifications (2)-(5) and (7)-(10) include as controls log land area and log population in 2000 (simple set of controls). Specifications (3)-(5) and (8)-(10) also include as controls a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 12 - Ethnic Inequality, Administrative Unit Inequality and Economic Development
Historical and Geographic Controls and Alternative Measures of Regional Inequality

Panel A: Overall Spatial Inequality

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-0.9352***	-0.9407***	-0.9235***	-0.9474***	-1.1713**	-1.3893***	-0.7823***	-0.8158***	-0.8994***	-0.9115***	-0.9980**	-1.0723**
[Gini Coeff.]	(0.3190)	(0.3181)	(0.2907)	(0.2955)	(0.4508)	(0.4933)	(0.2857)	(0.2857)	(0.2726)	(0.2780)	(0.4247)	(0.4164)
Spatial Inequality	-0.6993*	-0.6327	-0.8560**	-0.7464*	-1.2744**	-1.2605**	-0.8591**	-0.7642*	-1.1543***	-1.0713***	-1.1726*	-1.1838*
[Gini Coeff.]	(0.3803)	(0.4045)	(0.3532)	(0.3872)	(0.6163)	(0.6182)	(0.3688)	(0.3914)	(0.3272)	(0.3628)	(0.6312)	(0.6115)
Ethnic/Linguistic	0.1986	0.1768	0.3361	0.2748	0.5516*	0.5653*	0.3061	0.2842	0.1734	0.1578	0.2959	0.279
Fragmentation	(0.3088)	(0.3080)	(0.3065)	(0.3099)	(0.3253)	(0.3158)	(0.2468)	(0.2612)	(0.2658)	(0.2774)	(0.2367)	(0.2423)
Adjusted R-squared	0.772	0.768	0.780	0.779	0.777	0.780	0.771	0.768	0.779	0.776	0.773	0.7733
Observations	151	151	143	143	151	151	151	151	135	135	151	151
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Table 12 - Ethnic Inequality, Administrative Unit Inequality and Economic Development
Historical and Geographic Controls and Alternative Measures of Regional Inequality

Panel B: Inequality across Administrative Units (1st-level)

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-0.9294***	-0.9344***	-0.9944***	-1.0136***	-1.1445**	-1.3719***	-0.7269**	-0.7663***	-0.9588***	-0.9928***	-0.9881**	-1.0778**
[Gini Coeff.]	(0.2987)	(0.2986)	(0.2682)	(0.2700)	(0.4717)	(0.5156)	(0.2949)	(0.2919)	(0.3048)	(0.3164)	(0.4282)	(0.4271)
Admin Unit Inequality	-0.9753**	-1.0063**	-0.7756**	-0.7570**	-1.1814**	-1.1324**	-0.9745**	-0.9759**	-0.4399	-0.4053	-1.1328**	-1.1179**
[Gini Coeff.]	(0.3872)	(0.4041)	(0.3696)	(0.3816)	(0.5196)	(0.5414)	(0.4130)	(0.4183)	(0.3989)	(0.3981)	(0.5450)	(0.5510)
Ethnic/Linguistic	0.1976	0.1850	0.3317	0.2658	0.5155	0.5350*	0.2218	0.2234	0.2633	0.2301	0.2385	0.2434
Fragmentation	(0.2991)	(0.3007)	(0.3033)	(0.3074)	(0.3170)	(0.3131)	(0.2487)	(0.2584)	(0.2730)	(0.2834)	(0.2369)	(0.2431)
Adjusted R-squared	0.778	0.775	0.779	0.780	0.778	0.780	0.774	0.772	0.766	0.766	0.775	0.7747
Observations	151	151	143	143	151	151	151	151	135	135	151	151
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Appendix Table 12 - Ethnic Inequality, Administrative Unit Inequality and Economic Development
Historical and Geographic Controls and Alternative Measures of Regional Inequality

Panel C: Inequality across Administrative Units (2nd-level)

	Atlas Narodov Mira (GREG)						Ethnologue					
	All Ethnic Areas		Excl. Capitals		Excl. Small Groups		All Ethnic Areas		Excl. Capitals		Excl. Small Groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-0.9948***	-1.0401***	-1.0023***	-1.0162***	-1.0653**	-1.3373***	-0.9125**	-1.0441***	-1.0452***	-1.1746***	-1.0057***	-1.2415***
[Gini Coeff.]	(0.3437)	(0.3299)	(0.2888)	(0.2819)	(0.4416)	(0.4850)	(0.3550)	(0.3259)	(0.3776)	(0.3620)	(0.3778)	(0.3948)
Admin Unit Inequality	-0.6844*	-0.5994*	-0.8006**	-0.7193**	-1.7258***	-1.7741***	-0.8042**	-0.6894**	-0.5766	-0.4735	-1.6605***	-1.6837***
[Gini Coeff.]	(0.3590)	(0.3510)	(0.3414)	(0.3308)	(0.4806)	(0.4565)	(0.3447)	(0.3214)	(0.3718)	(0.3527)	(0.4583)	(0.4318)
Ethnic/Linguistic	-0.1570	-0.2110	-0.0370	-0.1112	-0.0214	-0.0377	0.0629	0.1212	0.1157	0.1203	-0.0882	-0.0259
Fragmentation	(0.3390)	(0.3236)	(0.3423)	(0.3302)	(0.3442)	(0.3186)	(0.2723)	(0.2821)	(0.2993)	(0.3082)	(0.2378)	(0.2519)
Adjusted R-squared	0.789	0.795	0.793	0.798	0.807	0.822	0.789	0.797	0.780	0.785	0.808	0.8209
Observations	127	127	124	124	126	126	127	127	117	117	126	126
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In all specifications in Panel A we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In all specifications in Panel B we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. In all specifications in Panel C we condition on the administrative Gini index that reflects inequality in lights per capita across second-level administrative regions. For the construction of the ethnic and the spatial inequality measures (Gini coefficients) in columns (1), (2), (7) and (8) we use all ethnic (linguistic) homelands (and pixels); in columns (3), (4), (9) and (10) we exclude ethnic areas (and pixels) where capital cities fall; in columns (5), (6), (11) and (12) we exclude polygons (linguistic, ethnic, boxes) consisting of less than one percent of a country's population. Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area, log population in 2000 (simple set of controls), a measure of terrain ruggedness, the percentage of each country with fertile soil, the percentage of each country with tropical climate, average distance to nearest ice-free coast, and an index of gem-quality diamond extraction (geographic set of controls). The specifications in even-numbered columns also include as controls the log population density circa 1500 CE (Acemoglu, Johnson, and Robinson, 2002), a dummy variable that identifies countries with a British common-law system (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998) and the log of the timing since the Neolithic revolution (ancestry adjusted) which takes into account the experience of contemporary inhabitants within a country regarding the transition to agriculture of their ancestors (Putterman and Weil, 2010 and Ashraf and Galor, 2013). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 13 - Sensitivity Checks: Ethnic Inequality and Economic Development
Dropping Iteratively a Different Region

	Atlas Narodov Mira (GREG)						Ethnologue					
Excluding	WE & NA	EAP-SA	SSA	MENA	ECA	LAC	WE & NA	EAP-SA	SSA	MENA	ECA	LAC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	-1.4089***	-1.0898***	-1.4077***	-1.1211***	-1.5140***	-1.2971***	-1.0895***	-0.7653**	-1.0690***	-0.9390***	-1.2653***	-1.1975***
[Gini Coeff.]	(0.3913)	(0.3837)	(0.4003)	(0.4036)	(0.4372)	(0.4511)	(0.3119)	(0.3375)	(0.3176)	(0.3388)	(0.3442)	(0.3592)
Spatial Inequality	-0.6943	-0.4217	-0.2642	-0.7381*	-0.2425	-0.5872	-0.9058*	-0.6635	-0.6233	-0.8153*	-0.3944	-0.7355
[Gini Coeff.]	(0.4602)	(0.4307)	(0.4783)	(0.4398)	(0.4675)	(0.5146)	(0.4582)	(0.4310)	(0.4589)	(0.4385)	(0.4795)	(0.4785)
Ethnic/Linguistic	-0.0919	-0.2404	0.3067	-0.2673	0.1879	-0.1553	-0.0332	-0.0958	-0.0994	-0.1889	0.2278	0.0303
Fragmentation	(0.3911)	(0.3527)	(0.3750)	(0.3863)	(0.3706)	(0.3943)	(0.3272)	(0.3100)	(0.2997)	(0.3274)	(0.3169)	(0.3541)
Adjusted R-squared	0.562	0.715	0.524	0.664	0.691	0.677	0.563	0.710	0.532	0.668	0.692	0.683
Observations	154	145	126	153	146	141	154	145	126	153	146	141
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In columns (1) and (7) we exclude from the estimation observations (countries) from Western Europe and North America; in columns (2) and (8) we exclude countries from South Asia and East Asia and Pacific; in columns (3) and (9) we exclude countries from Sub-Saharan Africa; in columns (4) and (10) we exclude countries from the Middle-East and North Africa; in columns (5) and (11) we exclude countries from Eastern Europe and Caucasus region; and in columns (6) and (12) we exclude countries from Latin America and the Caribbean. The regional classification follows the World Bank. In all specifications we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 14 - Sensitivity Checks and Heterogeneity: Ethnic Inequality and Economic Development (in 2000)
Examining the Association within Regions

	Atlas Narodov Mira (GREG)						Ethnologue					
Within	WE & NA	EA-SA	SSA	MENA	ECA	LAC	WE & NA	EA-SA	SSA	MENA	ECA	LAC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ethnic Inequality	0.1689	-2.1608**	-1.3374	-2.5028***	-0.6088	-1.2646**	-0.4608	-2.5940**	-1.5477*	-1.7024**	-0.8233	-0.6104
[Gini Coeff.]	(0.4659)	(0.8645)	(0.8584)	(0.6144)	(0.9048)	(0.5606)	(0.6818)	(1.1190)	(0.9156)	(0.7247)	(0.6479)	(0.4799)
Spatial Inequality	0.0397	-0.3309	0.1470	0.7791	-0.3130	0.2693	0.4371	0.1635	0.3877	-0.3925	0.1153	-0.0810
[Gini Coeff.]	(0.3237)	(1.4102)	(0.7910)	(0.8180)	(0.8730)	(0.5343)	(0.5338)	(1.0031)	(1.0545)	(0.5653)	(0.8278)	(0.4500)
Ethnic/Linguistic	0.4341	0.8465	-0.7886	0.9809	-1.7060	0.6904	0.2422	0.7342	0.2974	0.9488	-2.1738**	0.3448
Fragmentation	(0.4816)	(0.8397)	(0.8293)	(0.7742)	(0.9956)	(0.6052)	(0.3036)	(1.0980)	(0.7772)	(0.6101)	(0.8642)	(0.3767)
Adjusted R-squared	-0.125	0.395	0.102	0.246	0.105	0.147	-0.184	0.427	0.063	0.184	0.277	0.049
Observations	19	28	47	20	27	32	19	28	47	20	27	32

The table reports cross-country OLS estimates. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(6) and on the Ethnologue in columns (7)-(12). In columns (1) and (7) we restrict estimation to Western Europe and North America; in columns (2) and (8) we restrict estimation to South Asia and East Asia and Pacific; in columns (3) and (9) we focus on Sub-Saharan Africa; in columns (4) and (10) we look within the Middle-East and North Africa; in columns (5) and (11) we restrict estimation to Eastern Europe and Caucasus; and in columns (6) and (12) we focus on Latin America and the Caribbean. The regional classification follows the World Bank. In all specifications we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 15 - On the Colonial Origins of Ethnic Inequality

	Atlas Narodov Mira (GREG)					Ethnologue				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Common Law Indicator	-0.0499					-0.0106				
	(0.0330)					(0.0420)				
Log Settler Mortality		0.0121					-0.0174			
		(0.0198)					(0.0208)			
Log Pop. Density circa 1500			0.0254					0.0126		
			(0.0164)					(0.0205)		
Share of Europeans				-0.0225					-0.1122	
				(0.0655)					(0.0828)	
Partitioned					0.0002					0.0001
					(0.0005)					(0.0009)
Border Straightness					0.2830					0.4328
					(0.8315)					(1.2511)
Spatial Inequality	0.5389***	0.5377***	0.4536***	0.5514***	0.5507***	0.4939***	0.5161***	0.3838***	0.4894***	0.3827***
[Gini Coeff.]	(0.0902)	(0.1314)	(0.0929)	(0.0891)	(0.1015)	(0.1088)	(0.1601)	(0.1194)	(0.1105)	(0.1406)
Adjusted R-squared	0.592	0.549	0.591	0.523	0.576	0.627	0.628	0.626	0.608	0.617
Observations	173	63	169	157	113	173	63	169	157	113
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates, associating contemporary ethnic inequality with various historical variables. The dependent variable is the ethnic Gini coefficient that reflects inequality in lights per capita in 2000 across ethnic/linguistic homelands, using the digitized version of Atlas Narodov Mira (GREG) in (1)-(5) and Ethnologue in (6)-(10). In all specifications we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). Section 2 gives details on the construction of the ethnic inequality and spatial inequality (Gini) indexes. The specifications in columns (1) and (6) include a dummy variable that identifies countries with a British common-law system (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998); columns (2) and (7) include the log of settler mortality around 19th century (Acemoglu, Johnson, and Robinson, 2001); columns (3) and (8) include the log population density circa 1500 CE (Acemoglu, Johnson, and Robinson, 2002); columns (4) and (9) include the share of Europeans in the population (Hall and Jones, 1999 and Putterman and Weil, 2010); columns (5) and (10) include an index of state artificiality based on the straightness of borders and the share of the population that comes from an ethnic group that has been partitioned by the national border (Alesina, Easterly and Mutuszeski, 2011). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 16: Summary Statistics - Cross Country Inequality Measures in Geographic Endowments across Ethnic Homelands

	Obs.	mean	st. dev.	min	p25	median	p75	max
				Panel A: Atlas Narodov Mira (GREG)				
Gini Coefficient - Land Quality for Agriculture	164	0.205	0.186	0.000	0.067	0.145	0.316	0.695
Gini Coefficient - Temperature	164	0.004	0.004	0.000	0.001	0.002	0.005	0.025
Gini Coefficient - Precipitation	164	0.135	0.122	0.000	0.045	0.100	0.192	0.659
Gini Coefficient - Distance to Coast	164	0.238	0.154	0.000	0.109	0.234	0.351	0.625
Gini Coefficient - Elevation	164	0.137	0.106	0.000	0.054	0.121	0.206	0.440
Gini Coefficient - Temperature Seasonality	164	0.086	0.086	0.000	0.023	0.052	0.129	0.439
Gini Coefficient - Variability in Precipitation	164	0.098	0.079	0.000	0.041	0.078	0.139	0.409
				Panel B: Ethnologue				
Gini Coefficient - Land Quality for Agriculture	164	0.192	0.188	0.000	0.041	0.147	0.273	0.819
Gini Coefficient - Temperature	164	0.003	0.004	0.000	0.001	0.002	0.004	0.018
Gini Coefficient - Precipitation	164	0.131	0.116	0.000	0.052	0.104	0.190	0.612
Gini Coefficient - Distance to Coast	164	0.273	0.183	0.000	0.120	0.298	0.412	0.672
Gini Coefficient - Elevation	164	0.250	0.167	0.000	0.123	0.249	0.373	0.614
Gini Coefficient - Temperature Seasonality	164	0.083	0.079	0.000	0.020	0.060	0.122	0.321
Gini Coefficient - Variability in Precipitation	164	0.097	0.083	0.000	0.037	0.080	0.137	0.414

The table reports summary statistics for the seven measures (Gini coefficients) reflecting inequality in geographic endowments across ethnic (linguistic) homelands based on the digitized version of Atlas Narodov Mira (GREG) in Panel A and the Ethnologue in Panel B.

Appendix Table 17. On the Origins of Contemporary Ethnic Inequality
Inequality in Geographic Endowments across Ethnic Homelands and Contemporary Ethnic Inequality

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Land Quality	0.3290**	0.0042	-0.0574	0.1891	0.4488***	0.2227	0.4123**	0.4310***
[Gini Coeff.]	(0.1375)	(0.2092)	(0.1825)	(0.1431)	(0.1113)	(0.1698)	(0.1718)	(0.1178)
Temperature	3.1192	-12.5503	15.7333	1.2556	12.3589*	30.4248***	38.0722***	22.4996**
[Gini Coeff.]	(6.7790)	(10.8750)	(10.5665)	(7.6574)	(6.9727)	(11.1117)	(9.4914)	(8.8379)
Precipitation	0.1959	0.6571	0.5255	0.2513	-0.0191	0.5784	0.1693	0.1511
[Gini Coeff.]	(0.2149)	(0.4011)	(0.3563)	(0.2182)	(0.2341)	(0.4295)	(0.3788)	(0.2248)
Distance to Coast	0.2328**	0.2829	0.0936	0.3954***	0.0323	0.1725	0.0258	0.1755
[Gini Coeff.]	(0.1114)	(0.1782)	(0.1504)	(0.1465)	(0.1221)	(0.1477)	(0.1769)	(0.1192)
Elevation	0.312	0.439	0.6125**	0.2084	0.248	0.1605	0.3001	-0.0834
[Gini Coeff.]	(0.2447)	(0.2903)	(0.2872)	(0.2476)	(0.1540)	(0.2108)	(0.2006)	(0.1576)
Temp. Seasonality	0.8521***	0.9381**	1.1315***	0.7828***	1.6040***	1.2587***	1.8974***	1.2554***
[Gini Coeff.]	(0.2483)	(0.3763)	(0.3504)	(0.2647)	(0.2816)	(0.4438)	(0.4843)	(0.2798)
Precipitation Variability	-0.142	0.6374	-0.0449	-0.175	0.0841	0.3339	0.1459	0.2016
[Gini Coeff.]	(0.2677)	(0.4143)	(0.3837)	(0.2736)	(0.3046)	(0.4986)	(0.5016)	(0.2964)
Adjusted R-squared	0.4895	0.518	0.5352	0.5162	0.6565	0.6957	0.7	0.7182
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Spatial	Admin Unit	Levels	No	Spatial	Admin Unit	Levels

The table reports cross-country OLS estimates, associating contemporary ethnic inequality with inequality in geographic endowments across ethnic homelands. The dependent variable is the ethnic Gini coefficient that reflects inequality in lights per capita in 2000 across ethnic-linguistic homelands, using the digitized version of Atlas Narodov Mira (GREG) in (1)-(4) and Ethnologue in (5)-(8). To construct the inequality measures in geographic endowments across ethnic homelands we first estimate the distance from the centroid of each ethnic homeland to the closest sea coast, average elevation, precipitation, temperature, land quality for agriculture and variability (standard deviation in precipitation) and temperature range (max-min) and then construct Gini coefficients capturing inequality across ethnic homelands in each of these seven geographic features for each country. In columns (2) and (6) we control for the overall degree of spatial inequality in geographic endowments using the Gini coefficient of each of these features (distance to the closest sea-coast, elevation, precipitation, temperature, land quality for agriculture, variability in precipitation and temperature range) estimated across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In columns (3) and (7) we control for the regional inequality across administrative units in geographic endowments using the Gini coefficient of each of these features (distance to the closest sea-coast, elevation, precipitation, temperature, land quality for agriculture, variability in precipitation and temperature range) estimated across first-level administrative units in each country. Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, land quality for agriculture, variability in precipitation and temperature range. All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 18: On the Geographic Origins of Contemporary Ethnic Inequality
Inequality in Geographic Endowments across Ethnic Homelands Estimated across 7 Dimensions

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inequality in Geographic Endowments across Ethnic Homelands (PC)	0.0811***	0.1029***	0.1033***	0.0769***	0.1088***	0.1306***	0.1457***	0.1017***
	(0.0087)	(0.0157)	(0.0162)	(0.0090)	(0.0102)	(0.0162)	(0.0176)	(0.0097)
Spatial Inequality in Geographic Endowments (PC)		-0.0273*				-0.0285*		
		(0.0157)				(0.0157)		
Inequality in Geographic Endowments across Admininstrative Units (PC)			-0.0318*				-0.0542***	
			(0.0181)				(0.0164)	
Adjusted R-squared	0.471	0.480	0.482	0.494	0.620	0.627	0.643	0.695
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

The table reports cross-country OLS estimates, associating contemporary ethnic inequality with inequality in geographic endowments across ethnic homelands. The dependent variable is the ethnic Gini coefficient that reflects inequality in lights per capita in 2000 across ethnic-linguistic homelands, using the digitized version of Atlas Narodov Mira (GREG) in (1)-(4) and Ethnologue in (5)-(8). The composite index of inequality in geographic endowments is the first principal component of seven inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). The mapping of ethnic homelands follows the digitized version of Atlas Narodov Mira (GREG) in columns (1)-(4) and of Ethnologue in columns (5)-(8). Columns (2) and (6) include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) of distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). Columns (3) and (7) include a composite index reflecting regional inequality in geographic endowments across administrative units. The composite index aggregates (via principal components) Gini coefficients across first-level administrative units in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation in precipitation) and temperature range (max-min). Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 19: On the Origins of Contemporary Ethnic Inequality
Inequality in Geographic Endowments across Ethnic Homelands and Contemporary Ethnic Inequality
Conditional on Inequality in Development across Space and across Administrative Units

Inequality in Geography Estimated across	Atlas Narodov Mira (GREG)				Ethnologue			
	5 variables		7 variables		5 variables		7 variables	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inequality in Geographic Endowments across Ethnic Homelands (PC)	0.0538***	0.0790***	0.0495***	0.0718***	0.0880***	0.1059***	0.0828***	0.0968***
	(0.0096)	(0.0095)	(0.0087)	(0.0083)	(0.0140)	(0.0133)	(0.0113)	(0.0108)
Spatial Inequality in Development (Gini Coeff.)	0.4616***		0.4463***		0.3846***		0.3560***	
	(0.0632)		(0.0642)		(0.0784)		(0.0727)	
Admin Unit Inequality in Development (Gini Coeff)		0.4160***		0.4184***		0.4423***		0.4557***
		(0.0766)		(0.0755)		(0.1023)		(0.0944)
Adjusted R-squared	0.591	0.539	0.598	0.560	0.637	0.641	0.663	0.679
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates, associating contemporary ethnic inequality in 2000 with inequality in geographic endowments across ethnic homelands, conditional on the overall degree of spatial inequality in development (in odd-numbered columns) and conditional on regional inequality across first-level administrative units (in even-numbered columns). The dependent variable is the ethnic Gini coefficient that reflects inequality in lights per capita across ethnic-linguistic homelands, using the digitized version of Atlas Narodov Mira (GREG) in (1)-(4) and Ethnologue in (5)-(8). The composite index of inequality in geographic endowments is the first principal component of five (in columns (1)-(2), (5)-(6)) or seven (in columns (3)-(4), (7)-(8)) inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture (and in columns (3)-(4) and (7)-(8) also variability (standard deviation) in precipitation and temperature range (max-min)). The mapping of ethnic homelands follows the digitized version of Atlas Narodov Mira (GREG) in columns (1)-(4) and of Ethnologue in columns (5)-(8). In odd-numbered columns we condition on the overall spatial inequality index (Gini coefficient) that captures the degree of spatial inequality across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes intersected by national boundaries and the coastline are of smaller size). In even-numbered columns we condition on the administrative Gini index that reflects inequality in lights per capita across first-level administrative regions. All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 20: Inequality in Geographic Endowments across Ethnic Homelands and Contemporary Development Conditional on Inequality in Development across Space and Administrative Units

Panel A: Inequality in Geographic Endowments across Ethnic Homelands Estimated across 5 Dimensions

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inequality in Geographic Endowments across Ethnic Homelands (PC)	-0.1347***	-0.0908**	-0.1002**	-0.0993***	-0.1293***	-0.0799	-0.0862*	-0.1119***
	(0.0383)	(0.0444)	(0.0398)	(0.0367)	(0.0432)	(0.0531)	(0.0456)	(0.0364)
Spatial Inequality [Gini Coeff., Pixels]			-0.5581*				-0.5770*	
			(0.3311)				(0.3448)	
Admin Unit Inequality [Gini Coeff.]				-1.2816***				-1.2662***
				(0.4192)				(0.4322)
Adjusted R-squared	0.635	0.639	0.660	0.691	0.633	0.637	0.656	0.696
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

Appendix Table 20: Inequality in Geographic Endowments across Ethnic Homelands and Contemporary Development Conditional on Inequality in Development across Space and Administrative Units

Panel B: Inequality in Geographic Endowments across Ethnic Homelands Estimated across 7 Dimensions

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inequality in Geographic Endowments	-0.1143***	-0.0735*	-0.0852**	-0.0754**	-0.1121***	-0.0703	-0.0785**	-0.0878***
across Ethnic Homelands (PC)	(0.0340)	(0.0391)	(0.0348)	(0.0317)	(0.0367)	(0.0441)	(0.0377)	(0.0312)
Spatial Inequality			-0.5753*				-0.5732*	
[Gini Coeff., Pixels]			(0.3297)				(0.3371)	
Admin Unit Inequality				-1.2983***				-1.2779***
[Gini Coeff.]				(0.4170)				(0.4238)
Adjusted R-squared	0.634	0.638	0.660	0.696	0.633	0.637	0.658	0.701
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

The table reports cross-country OLS estimates, associating contemporary development in 2000 with inequality in geographic endowments across ethnic homelands. The dependent variable is the log of real GDP per capita in 2000. In Panel A the composite measures of inequality in geographic endowments is the first principal component of five inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands (pixels and first-level administrative units) in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. In Panel B the composite measures of inequality in geographic endowments is the first principal component of five inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands (pixels and first-level administrative units)in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). The mapping of ethnic homelands follows the digitized version of Atlas Narodov Mira (GREG) in columns (1)-(4) and of Ethnologue in columns (5)-(8). Columns (2) and (6) include a composite index reflecting the overall degree of spatial inequality in geographic endowments. Columns (3) and (7) include a composite index reflecting regional inequality in geographic endowments across administrative units. Columns (4) and (8) include as controls the mean values (for each country) of distance to the coast, elevation, precipitation, temperature, land quality for agriculture (in Panel A and B) and variability (standard deviation) in precipitation and temperature range (max-min) in Panel B. All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 21: Inequality in Geographic Endowments across Ethnic Homelands and Contemporary Development
Inequality in Geographic Endowments across Ethnic Homelands Estimated across 7 Dimensions

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inequality in Geographic Endowments across Ethnic Homelands (PC)	-0.1143***	-0.1784***	-0.1220*	-0.0754**	-0.1121***	-0.1604***	-0.1157*	-0.0878***
	(0.0340)	(0.0665)	(0.0622)	(0.0317)	(0.0367)	(0.0597)	(0.0597)	(0.0312)
Spatial Inequality in Geographic Endowments (PC)		0.0803				0.063		
		(0.0743)				(0.0627)		
Inequality in Geographic Endowments across Administrative Units (PC)			0.011				0.0054	
			(0.0837)				(0.0747)	
Adjusted R-squared	0.634	0.635	0.631	0.696	0.633	0.633	0.631	0.701
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

The table reports cross-country OLS estimates, associating contemporary development with inequality in geographic endowments across ethnic homelands. The dependent variable is the log of real GDP per capita in 2000. The composite index of inequality in geographic endowments is the first principal component of seven inequality measures (Gini coefficients) measuring inequality across ethnic/linguistic homelands in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). The mapping of ethnic homelands follows the digitized version of Atlas Narodov Mira (GREG) in columns (1)-(4) and of Ethnologue in columns (5)-(8). Columns (2) and (6) include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) of distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation, and temperature range (max-min). Columns (3) and (7) include a composite index reflecting regional inequality in geographic endowments across administrative units. The composite index aggregates (via principal components) Gini coefficients across first-level administrative units in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, and land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 22: Inequality in Geographic Endowments across Ethnic Homelands, Ethnic Inequality, and Contemporary Development
Inequality in Geographic Endowments across Seven (7) Dimensions

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality	-1.3519***	-1.3133***	-1.3797***	-1.1641***	-1.2082***	-1.1847***	-1.2845***	-0.7316**
	(0.3610)	(0.3504)	(0.3543)	(0.3357)	(0.3430)	(0.3393)	(0.3443)	(0.3506)
Inequality in Geographic Endowments across Ethnic Homelands (PC)	-0.0046	-0.0432	0.0206	0.0142	0.0193	-0.0057	0.0715	-0.0134
	(0.0427)	(0.0649)	(0.0588)	(0.0383)	(0.0496)	(0.0646)	(0.0639)	(0.0496)
Spatial Inequality in Geographic Endowments (PC)		0.0445				0.0293		
		(0.0707)				(0.0572)		
Inequality in Geographic Endowments across Administrative Units (PC)			-0.0329				-0.0642	
			(0.0744)				(0.0657)	
Adjusted R-squared	0.662	0.661	0.661	0.716	0.662	0.660	0.662	0.709
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

The table reports cross-country OLS estimates, associating contemporary development with ethnic inequality and inequality in geographic endowments across ethnic homelands. The dependent variable is the log of real GDP per capita in 2000. The ethnic Gini coefficients reflect inequality in lights per capita across ethnic homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(4) and based on the Ethnologue in columns (5)-(8). The composite index of inequality in geographic endowments is the first principal component of seven inequality measures (Gini coefficients) measuring inequality across ethnic/linguistic homelands in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). The mapping of ethnic homelands follows the digitized version of Atlas Narodov Mira (GREG) in columns (1)-(4) and of Ethnologue in columns (5)-(8). Columns (2) and (6) include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). Columns (3) and (7) include a composite index reflecting regional inequality in geographic endowments across administrative units. The composite index aggregates (via principal components) Gini coefficients across first-level administrative units in distance to the coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, land quality for agriculture, variability (standard deviation) in precipitation and temperature range (max-min). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 23 - 2SLS Estimates
Inequality in Geographic Endowments across Ethnic Homelands, Ethnic Inequality and Development

	Atlas Narodov Mira (GREG)				Ethnologue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Inequality [Gini Coeff.]	-1.4944*** (0.3920)	-1.9830*** (0.6428)	-1.4945*** (0.5360)	-1.1056*** (0.3817)	-1.0689*** (0.3322)	-1.1570*** (0.4238)	-0.8297** (0.3680)	-0.9476*** (0.3130)
Spatial Inequality in Geographic Endowments (PC)		0.0568 (0.0697)				0.0143 (0.0545)		
Inequality in Geographic Endowments across Administrative Units (PC)			0.0001 (0.0678)				-0.0427 (0.0549)	
First-stage F-statistic	38.646	16.369	20.154	35.427	40.662	23.437	27.679	33.577
Observations	164	164	164	164	164	164	164	164
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional Controls	No	No	No	Levels	No	No	No	Levels

The table reports cross-country 2SLS (two stage least squares) estimates. The dependent variable in the second stage is the log of real GDP per capita in 2000. The dependent variable in the first stage is the ethnic Gini coefficient that reflects inequality in lights per capita across ethnic (linguistic) homelands, based on the digitized version of the Atlas Narodov Mira (GREG) in columns (1)-(4) and on the Ethnologue in columns (5)-(8). The main independent variable in the first stage ("instrument") is a composite index reflecting inequality in geography across ethnic homelands. The composite inequality index in geographic endowments is the first principal component of five inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. Columns (2) and (6) include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. Columns (3) and (7) include a composite index reflecting regional inequality in geographic endowments across administrative units. The composite index aggregates (via principal components) Gini coefficients across first-level administrative units in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. Columns (4) and (8) include as controls the mean values (for each country) of distance to sea coast, elevation, precipitation, temperature, and land quality for agriculture. All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 24 - Sensitivity Checks: Inequality in Geographic Endowments and Economic Development (in 2000)
Excluding each Time a Different Region

	Atlas Narodov Mira (GREG)						Ethnologue					
Excluding	WE & NA	EA-SA	SSA	MENA	ECA	LAC	WE & NA	EA-SA	SSA	MENA	ECA	LAC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Geo Ethnic Inequality	-0.2482***	-0.1737**	-0.2137**	-0.1697**	-0.2053**	-0.2237***	-0.1554*	-0.1084	-0.1157	-0.1610*	-0.1953**	-0.1563*
[Gini Coeff.]	(0.0839)	(0.0784)	(0.0828)	(0.0776)	(0.0816)	(0.0831)	(0.0845)	(0.0852)	(0.0871)	(0.0845)	(0.0906)	(0.0896)
Geo Spatial Inequality	0.1276	0.0646	0.0796	0.1166	0.0999	0.0863	0.0402	0.0044	-0.0158	0.0985	0.0817	0.0134
[Gini Coeff.]	(0.0941)	(0.0793)	(0.0982)	(0.0921)	(0.0924)	(0.1003)	(0.0821)	(0.0838)	(0.0848)	(0.0818)	(0.0858)	(0.0870)
Ethnic/Linguistic	-0.2460	-0.2666	0.0862	-0.4537	0.0055	-0.2559	-0.2295	-0.0556	-0.326	-0.3601	0.0479	-0.293
Fragmentation	(0.3751)	(0.3660)	(0.3877)	(0.3700)	(0.3646)	(0.3786)	(0.3276)	(0.3020)	(0.3512)	(0.3259)	(0.3358)	(0.3781)
Adjusted R-squared	0.513	0.695	0.493	0.641	0.662	0.655	0.501	0.688	0.482	0.645	0.662	0.6506
Observations	145	137	118	145	137	138	145	137	118	145	137	138
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates, associating contemporary development with inequality in geographic endowments across ethnic homelands. The dependent variable is the log of real GDP per capita in 2000. The composite index of inequality in geographic endowments is the first principal component of five inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. In columns (1) and (7) we exclude from the estimation observations (countries) from Western Europe and North America; in columns (2) and (8) we exclude countries from South Asia and East Asia and Pacific; in columns (3) and (9) we exclude countries from Sub-Saharan Africa; in columns (4) and (10) we exclude countries from the Middle-East and North Africa; in columns (5) and (11) we exclude countries from Eastern Europe and Caucasus region; and in columns (6) and (12) we exclude countries from Latin America and the Caribbean. The regional classification follows the World Bank. All specifications include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) of distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include as controls log land area and log population in 2000 (simple set of controls). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 25 - Heterogeneity: Inequality in Geographic Endowments and Economic Development (in 2000)
Examining the Association within Regions

Within	Atlas Narodov Mira (GREG)						Ethnologue					
	WE & NA	EA-SA	SSA	MENA	ECA	LAC	WE & NA	EA-SA	SSA	MENA	ECA	LAC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Geo Ethnic Inequality	0.0077	-0.3875*	-0.1126	-0.3546*	-0.3454*	-0.0354	-0.1102	-0.3039	-0.1921	-0.1214	-0.0361	-0.1373
[Gini Coeff.]	(0.0347)	(0.1888)	(0.1728)	(0.2063)	(0.1747)	(0.1660)	(0.0886)	(0.2809)	(0.1897)	(0.1353)	(0.1608)	(0.1614)
Geo Spatial Inequality	-0.0143	0.2823	0.1759	-0.0087	0.2028	0.0138	0.0719	0.1527	0.162	-0.2143	-0.0648	0.1223
[Gini Coeff.]	(0.0850)	(0.2804)	(0.1598)	(0.2298)	(0.2214)	(0.1336)	(0.0921)	(0.2013)	(0.1660)	(0.1618)	(0.1731)	(0.1421)
	0.3826	0.5514	-1.0892	0.5119	-2.1578**	0.4324	0.2971	-0.4018	-0.0952	0.6898	-2.1537***	0.3442
Ethnic Fragmentation	(0.4689)	(0.8944)	(0.6621)	(0.6365)	(0.9060)	(0.7975)	(0.2993)	(1.1842)	(0.5942)	(0.7086)	(0.6902)	(0.4548)
Adjusted R-squared	-0.147	0.221	0.010	0.455	0.205	-0.105	-0.107	0.250	-0.027	0.280	0.239	-0.0728
Observations	19	27	46	19	27	26	19	27	46	19	27	26
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The table reports cross-country OLS estimates, associating contemporary development with inequality in geographic endowments across ethnic homelands. The dependent variable is the log of real GDP per capita in 2000. The composite index of inequality in geographic endowments is the first principal component of five inequality measures (Gini coefficients) measuring inequality across ethnic-linguistic homelands in distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. In columns (1) and (7) we restrict estimation to Western Europe and North America; in columns (2) and (8) we restrict estimation to South Asia and East Asia and Pacific; in columns (3) and (9) we focus on Sub-Saharan Africa; in columns (4) and (10) we look within the Middle-East and North Africa; in columns (5) and (11) we restrict estimation to Eastern Europe and Caucasus; and in columns (6) and (12) we focus on Latin America and the Caribbean. The regional classification follows the World Bank. All specifications include a composite index reflecting the overall degree of spatial inequality in geographic endowments. The composite index aggregates (via principal components) Gini coefficients across 2.5 by 2.5 decimal degree boxes/pixels in each country (boxes/pixels intersected by national boundaries and the coastline are of smaller size) of distance to the coast, elevation, precipitation, temperature, and land quality for agriculture. In all specifications we control for ethnic/linguistic fragmentation using indicators reflecting the likelihood that two randomly chosen individuals in one country will not be members of the same group (the ethnic fragmentation index in (1)-(6) comes from Alesina et al. (2003) and the linguistic fragmentation index in (7)-(12) comes from Desmet et al. (2013)). All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and data sources. Robust standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.