WEB APPENDIX: NOT FOR PUBLICATION

Contents

1. Web Data Appendix - Mission Data

1.1. Mission Location Data for Ghana

Our main source of mission church data are the *Ecclesiastical Returns* that missionary societies submitted to the colonial administration on an annual basis and that were published in the *Blue Books of the Gold Coast* 1844-1932 (Gold Coast, various yearsa). Hence, the data refers to "officially" recognised mission stations. Figure A1 shows examples of Ecclesiastical Returns in 1867 and 1932. Information is incomplete for some years and denominations:

Missing Ecclesiastical Returns. For certain years ecclesiastical returns are unavailable:

- 1751-1843: The Blue Books of the Gold Coast start in 1844. However, the early beginnings of missionary work in Ghana are particularly well-documented and we reconstructed the period 1751-1843 from a variety of secondary sources (Schlatter, 1916; Wiltgen, 1956; Bartels, 1965; Odamtten, 1978; Hastings, 1994; Isichei, 1995).
- 1862-66: Blue Books were not available at The National Archives in the United Kingdom. This was a time of a rather stable environment for missionary work - despite the Second Anglo-Ashanti War (1863-1864) that did not see much fighting. Most of the mission stations in 1861 also existed in 1867, which we took. We consulted Wesleyan Methodist Church (various years), Schlatter (1916) and Schreiber (1936) for the Methodist, Basel and Bremen Missions respectively, to confirm dates of new openings and closures.
- 1873-74: During the Third Anglo-Ashanti war (1873-74), many mission stations were abandoned and destroyed. We reconstructed the history of each mission station using a variety of sources (Hay, 1874; Schlatter, 1916; Debrunner, 1967).

- 1917-1919: The Blue Books did not publish ecclesiastical returns. It was impossible to reconstruct the history of each mission station from secondary sources. In 1916, the number of missions already exceeded 700. We therefore interpolated assuming that missions that existed in 1916 and 1920 also existed 1917-1919. The number of Methodist missions stagnated to 311 and 322 in 1916 and 1920 respectively. The assumption seems therefore unproblematic in this case. As for the Basel and Bremen Missions, German and Swiss priests and missionaries were interned during World War I and deported when the war came to an end. The Scottish Mission then took over their missions in 1920. We observe a fall in the number of missions between 1914 and 1915, from 302 to 215. However, we believe that most of these churches operated during the 1917-1919 period, even if under difficult conditions, under the supervision of African personnel. The number of Catholic missions, in contrast, increased from 154 to 256 in 1916 and 1920 respectively. In this case, we ignore the expansion underestimating the number of Catholic missions in 1917-1919.

Incomplete Ecclesiastical Returns. For some years, the Blue Books report the main stations but do not report the outstations (Basel Mission: 1882, 1885-1887, 1891-1896; Methodist Mission: 1847-56, 1880-1887, 1900-1903). We reconstructed the missing information following three simple rules. Firstly, we assume that missions exist if according to the Blue Books they existed in the year before and the year after the gap in the reporting.[1] Secondly, if any mission school was reported in the Blue Books, we assume that the corresponding mission station was also in operation.[2] This assumption is unproblematic, because this is what we overwhelmingly observe: we only found 256 location-years where a school was reported without a mission station out of a total of 6,342 location-years where both a school and a mission were reported. Thirdly, we complemented the Blue Book data with information reported in the Minutes of the Methodist Conferences (Wesleyan Methodist Church, various years). We did not add more church locations from this source, but rather restricted the coding to those missions reported in the Blue Books at least once.

Obsolete Ecclesiastical Returns. We checked whether mission societies updated their returns on a yearly basis and found that this did apparently not occur for the Basel Mission 1911-1913 and the Methodist Mission for the years 1911-12, 1913-14, 1923-24, 1925-27 and 1930-31. We did not attempt to rectify this. In the case of the Basel Mission, 1911-1913 was a time of stagnation, hence measurement errors will be small. In the Methodist case, it was a time of expansion, hence the years 1912, 1914, 1924, 1926, 1927 and 1931 may suffer from underreporting.

Missing Mission Societies. The Catholic White Fathers in the Northern Territories started reporting only in 1930. We reconstructed their mission locations in 1906-1929 using detailed qualitative evidence provided in Debrunner (1967) and Der (1974).

British Togoland. German Togoland was occupied by British forces in 1914 and the Western part came under British administration in 1922. British Togoland were only included in the Gold Coast

[1] For example, the Methodist mission of Komenda was listed in the ecclesiastical returns for the year 1899 and 1904, but not for 1900-1903, as it was an outstation of Elmina. It is likely that Komenda continued to exist, particularly because the period 1900-03 was a time of expansion.

[2] The church data comes from the Ecclesiastical Returns published in the Blue Books. The school data is listed separately. In addition, the school data comes from the reports of the Education Department (Gold Coast, various yearsb).

Blue Books from 1920 onwards. We reconstructed the mission stations located in later British Togoland from a wide range of German sources. For the years 1890, 1893-1896, 1899-1904, 1918 we used information from the "Deutsches Kolonialblatt" (des Auswärtigen Amtes, various years) and the "Deutsches Kolonial-Handbuch (Fitzner, 1901). For the year 1911, we used a map that showed the location of Bremen mission stations (Reimer, 1911). We assumed that all those mission stations also existed 1912-14. We complemented the remaining years using the information of when mission stations were established from Schreiber (1936). We assumed that mission stations existed unless Schreiber (1936) or the other sources such as Groves (1955) pointed to the contrary.

Data Quality Checks and Robustness. We assessed data quality by comparing our data with information in Bartels (1965), Debrunner (1967) and the *Encyclopedia of Missions* by Dwight et al. (1904) for the period 1840-1900. We were able to match 38 missions. The sources largely agree. The difference in the start-up year averages 3 years, which means that churches show up earlier in the Blue Books (the standard deviation being 10.7). We also compared the Blue Book data with stations recorded in the*Minutes of the Wesleyan Methodist Conference* in 1846, 1857, 1867 and 1879 for which the ecclesiastical returns in the Blue Books are complete. We found 104 agreements and 95 deviations, 79 of which are due to the Blue Books listing stations that the Minutes did not list and this is mostly due to the year 1879 when the Minutes stopped comprehensive reporting of out-stations. From the 18 stations that the Minutes reported (and the Blue Books did not), 9 were classified as "vacant, agent wanted". This points to the Blue Books as a source of missions where clerical services were actually offered rather than planned to be offered. For the remaining 8 stations, the sources diverged in the start-up-year. Only one place was never listed in the Blue Books (Heginewah - which incidentally might rather be a misspelled place name).

Geographic Coordinates. We georeferenced the location of the churches using Agency (2016), a map indexing localities in the 1901 Census (Guggisberg, 1908) and map drawings of missionaries Basel Mission (2016). Overall, we could identify 2,096 of the 2,161 church locations. The attrition rate of 3% is concentrated in the late years (27 mission stations with missing geographic coordinates were established after 1929) and is likely due to issues of changes and misspellings of location names, a frequent issue in Ghanaian Census taking (Cogneau and Moradi, 2014).

1.2. Main Mission Stations for Ghana

We retrieved main mission stations using the information in the ecclesiastical returns published in the Blue Books of the Gold Coast. The sources use the term "out-station" explicitly until the 1870s when terms like circuit or district became standard. Typically, the main station ("circuit town", or "principal town of the area in which the other villages are situated") is listed first and printed in capital letters. Mission circuits generally do not follow administrative boundaries. We find that the number of out-stations per main station generally increases over time. We also find that the average distance to the main station remains relatively stable over time. Hence, over time the system of out-stations becomes generally denser within the area of a circuit.

1.3. Mission Schools for Ghana

The data on mission schools 1846-1932 comes from the Blue Books and the annual reports of the Education Department. From 1878 until 1887 the Gold Coast administration supported schooling

activities with lump sum payments to mission societies. Afterwards, grants were paid to schools individually (Williamson, 1952). As of the Education Ordinance of 1882, schools were inspected annually. From 1888 capitation grants were paid proportional to average attendance and students' grades in "Reading and Writing of the English Language and Arithmetic" (Gold Coast, 1920). Later on, more subjects had to be taught, the syllabus was regulated and teachers were required to have minimum qualifications. With the Education Ordinance No 21 of 1925 stricter requirements for "unassisted schools" came into effect in 1927. We created three school variables. The first variable includes all schools that were listed in the Blue Books 1844-1905. On the one hand, this variable is affected by omissions, because mission societies were not required to report to the government. On the other hand, it also includes schools of dubious quality - those that did not meet the minimum requirements and therefore remained unassisted. The second variable includes assisted schools only. In 1885 the Blue Books started to name the assisted schools of the Wesleyan Methodist Mission. In 1888 the Basel Mission, Catholic Mission and other missions followed. The data can be considered very reliable, grants were even stated for each assisted school separately. We combined the two school series at the starting date of the "assisted school only" variable. We dealt with a number of inconsistencies that arose. Between 1875 and 1879 the Methodist Mission reported a very large and implausible increase in schools. We believe that these were schools of poor quality. A low salary teacher was often listed as the only expense of those schools. Most of them disappeared in 1880 and they were not meeting minimum requirements to gain the assisted status in 1885. Hence, we dropped those Methodist mission schools that were not reported in 1872 and 1880. Similarly, in 1887 the Basel Mission reported 69 schools, but in 1888 only 39 became assisted. We dropped those schools that did not exist 1883-87 and were not assisted in 1888.

1.4. European and African Missionaries in Ghana

We created a database of missionaries stationed in the Gold Coast 1751-1890 from a variety of sources (Schott, 1879; Reindorf and Christaller, 1895; Schlatter, 1916; Schreiber, 1936; Martin and Sheldon, 1964; Smith, 1966; Debrunner, 1967; Agbeti, 1986; Anderson, 1999; Altena, 2003; Miller, 2003; Sill, 2010; Société des Missions Africaines, 2016; Basel Mission, 2016; Gold Coast, various yearsa). In particular, we recorded male missionaries' name, period of service, year of birth, year and country of death, and the mission society. Observations stop in 1890, because the Blue Books discontinue reporting names of missionaries. Data on every European missionary of the Methodist Mission, Basel Mission, Bremen Mission, Anglican Church SPG, United Brethren, Moravian Mission and the Roman Catholic SMA are complete. African missionaries (i.e. catechists, evangelists, teachers and priests/pastors) are less well-documented and possibly not entirely representative. Overall, we compiled a database of 338 European missionaries and 172 African missionaries.

1.5. Mission Location Data for Sub-Saharan Africa

We derive the location of Christian mission stations in Sub-Saharan Africa from two mission atlases widely used in the literature: (1) Roome (1925) shows Protestant and Catholic European residence missions in 1924, digitized and geocoded by Nunn (2010). (2) Beach (1903) shows Protestant European residence missions in 1900, compiled by Cagé and Rueda (2016). We then

create two dummies if there is a mission in a cell in mission map year 1900 and 1924.

1.6. Number of Missions in Sub-Saharan Africa and in the World

Using multiple sources, we obtain the number of missions for 37 Sub-Saharan African countries circa 1900 and 1924 and 4 Asian countries circa 1911-13.[3]

2. Web Data Appendix - Other Variables

2.1. Determinants of Mission Locations and Outcomes for Ghana

Geography

- **Disease Ecology (Human & Animal):** We use the historical malaria index created by Depetris-Chauvin and Weil (2018). The index measures the prevalence of sickle cell genetic mutations among the native population. For Trypanosomiasis (or tsetse), we use the suitability index from Alsan (2015) approximating the distribution of the tsetse fly vectors. Using GIS we get average historical malaria intensity and tsetse-fly suitability for each cell.
- **Distance to the Coast:** We use GIS to obtain the Euclidean distance (km) to the coast.

Political Conditions

- **Pre-Colonial Cities:** Large pre-colonial cities circa 1800 are described in Chandler (1987). We create a dummy equal to one if the cell contains a large pre-colonial city circa 1800.
- **Head Chief Town:** We retrieved names and geographic coordinates of head chief towns in 1901 from Guggisberg (1908). We then create a dummy equal to one if the cell contains a head chief town.
- **Colonial Boundaries:** From Dickson (1969) we derive the boundary of the Gold Coast Colony established by the British circa 1850. We create a dummy equal to one if the cell is outside the Gold Coast Colony circa 1850.
- **Largest Colonial Cities:** We obtain the largest and second largest cities from the 1901 *Population Census*. We create a dummy equal to one if the cell contains one of these cities.

Transportation

- **Ports:** The locations of ports circa 1850 are obtained from Dickson (1969). We create a dummy equal to one if a cell contains a port circa 1850.
- **Navigable Rivers:** The southern part of Ghana is not short of water sources and almost every grid cell contains a river or stream. We therefore focused on measures that exhibit variation. We obtained and recreated in GIS a map of the "major rivers" of Ghana from Dickson (1969, p. 237). As not all major rivers are in fact navigable, we then selected rivers that are classified as navigable using the transport technologies of 1850-1930 (steamship, canoe) all year or part of the year. Finally, we use GIS to calculate the Euclidean distance (km) from each grid cell centroid to the closest navigable river in 1890.

[3]Sources: Cape of Good Hope (various years), Gold Coast (various yearsa), Basutoland (various years), Bathurst (various years), Kenya (various years), Nigeria (various years), Rhodesia (various years), Nyasaland (various years), Sierra Leone (various years), Tanganyika (various years), Uganda (various years), Fitzner (1901), Dwight (1905), Beach and Fahs (1925), Streit (1913), Belge (1925), League of Nations (1925), Institut Géographique du Congo Belge (1949), Dunn (1992), Froise (1996), Bonfils (1999), Nangula (2013), Jones (2017) and Assoumou Nsi (2017).

- **Historical Trade Routes:** From Dickson (1969) we obtained maps of Ashanti and non-Ashanti trade routes circa 1850. We then recreated these maps in GIS and calculated the Euclidean distances (km) from each cell centroid to the closest trade routes.
- **Colonial Railroads and Roads:** Railroad data are from the GIS database used in Jedwab and Moradi (2016). For each railway line, we know when construction started (more precisely, the year each segment's lay-out was officially chosen and publicly announced) and finished (more precisely, the year each segment was officially open). From the same sources, we know the five (placebo) lines that were planned but not built. We calculate for each cell the Euclidean distance (km) from the cell centroid to each real line or placebo line. Lastly, we create a set of cell dummies equal to one if the cell centroid is less than X km away from the line: 0-10, 10-20, 20-30 and 30-40 km (or 0-30 km). We also create a dummy if the cell is within 30 km from the straight lines Sekondi-Kumasi and Accra-Kumasi. We also created a GIS database of the road network in 1930 (Jedwab and Moradi, 2016). We calculated the distance from each grid cell's centroid to the nearest class 1/2/3 road.

Population

- **Population:** Population data is taken from Jedwab and Moradi (2016). Based on census gazetteers, their GIS database includes towns above 1,000 inhabitants in 1891, 1901 and 1931 as well as rural population data for 1901 and 1931. Because rural population data for 1901 is only available for Southern Ghana, we create a dummy if any locality in the cell was surveyed by the 1901 census. We then used this data to obtain the urban population of each cell in 1891, 1901 and 1931 and the rural population of each cell in 1901 and 1931.[4]

Economic Activities

- **Slavery:** We use the log number of slaves exported per land area during the Atlantic and Indian Ocean slave trades from Nunn and Wantchekon (2011). Furthermore, we created dummies if the cell is within 50 km of the location of a slave market in 1800 Ghana as mapped in Osei (2014). Using the same source we also compute the log distances to slave markets and slave routes.
- **Cash Crops:** From the Gold Coast (1928) we obtained a precise map that displays dots for each 100 tons of cocoa production in 1927.[5] We then use GIS to create a dummy if the cell produces cocoa as well as total cocoa production (tons) for each cell in 1927. For the other crops, we obtain production areas from Dickson (1969, p.149, 153). For palm oil and rubber, we create a dummy equal to one if the cell is within 50 km from an important palm oil and rubber plantation 1900-1936, respectively. For Kola, we know if the cell belongs to a kola-producing area, 1932. We obtain soil suitability from the *1958 Survey of Ghana Classification Map of Cocoa Soils for Southern Ghana*, Survey of Ghana, Accra, as well as Gyasi (1992, p.40)

[4]The 1891 census only reports towns of a certain size. Rural population is thus not available for that year. For the year 1901, we know for each cell in Southern Ghana the number of large towns, towns (more than 500 inhabitants), large villages (100-500 inhabitants) and villages (less than 100 inhabitants). For 1931, we digitized the census map showing localities with less than 500 inhabitants and between 500 and 1,000 inhabitants for the whole country. Imputing the average population for each category from the censuses, we reconstruct total rural population for the cells in 1901 and 1931.

[5]We obtain 209,100 tons in total, which is very close to the national estimate of 210,600 tons (Gunnarsson, 1978).

and Globcover (2009).[6] Finally, aggregate commodity export values (in constant 1932 British Pounds) during the 1846-1932 period is sourced from Frankema et al. (2018).

- **Mining:** Location of mines is taken from Dickson (1969). The total export value (in constant 1932 British Pounds) of gold during the 1846-1932 period comes from Frankema et al. (2018).

Other Controls

- **Precipitation:** Climate data comes from *Terrestrial Air Temperature and Precipitation: 1900-2007 Gridded Monthly Time Series, Version 1.01*, University of Delaware (Matsuura and Willmott, 2015). We obtain mean annual precipitation (mms) in 1900-1960 for each cell.
- **Altitude and Ruggedness:** Topography comes from SRTM3 data and is measured at 3 arc-second resolution (ca. 90m x 90m). We estimate for each 0.1 x 0.1 grid cell the mean and standard deviation of altitude (meters). The standard deviation captures ruggedness.
- **Land Area:** We use GIS to obtain total land area in the cell.
- **Soil Fertility:** Soil fertility comes from FAO (2015). We use GIS to obtain the cell mean.
- **Ethnic Group:** The cells belong to 35 ethnic group boundaries using the Murdock (1967) map recreated in GIS by Nunn and Wantchekon (2011).
- **District (1931):** The cells belong to 38 districts based on the district boundaries reported in the reports of the 1931 *Population Census*. We recreate these boundaries in GIS.
- **Aburi and the Basel Mission:** We also create a dummy equal to one if the cell is within 50 km from the Basel Mission established at Aburi (ca 1856) or is located within the "sphere of influence" of the Basel Mission in 1873 (Riis et al., 1879).

Present-day Outcomes for Ghana

- **Satellite data on night lights:** We use satellite data on night lights in 2010 as a proxy for local economic development (NGDC, 2015). We use the radiance calibrated version of this data, to avoid issues related to top-coding. This data records levels of luminosity beyond the normal digital number upper bound of 63. For each cell, we calculate the mean digital of the pixels that fell within the cell.
- **Social and economic development:** From the 2000 Population Census (Ghana Statistical Service, 2000)[7] we obtained:
  i) Urbanization rate (%). We define urban places as localities with more than 1,000 inhabitants. For each cell, we compute the population share of urban dwellers;
  ii) Employment. We use three measures. First, we use the employment share of industry and services. However, this measure may obscure the large heterogeneity in the quality and wages within the non-agricultural sector. Secondly, we use the employment share of manufacturing and financial, real estate and business services (FIRE) – arguably the

[6] We defined a cell as suitable for cocoa if it contains cocoa soils and highly suitable if more than 50% of its area consists of forest ochrosols, the best cocoa soils. Gyasi (1992, p.40) reproduces the "palm oil belt" from the 1935 *Gold Coast Atlas: Agricultural Products sheet*. Note that we also use the *Global Agro-Ecological Zones* (GAEZ) database compiled by FAO (2015) to define an additional measure of land suitability for both cocoa and palm oil cultivation.

[7] We only have data for 10% of the population census. Therefore, the least densely populated cells in our sample may not have enough observations to correctly estimate population shares. Data is available for 1,895 cells only (= 2,091 - 196 missing cells).

"best" industrial and service sectors (Gollin et al., 2016). Third, we calculated the share of skilled occupations (managers, professionals, technicians, and clerks) within a cell;

iii) Christianity. We calculated the population share of Protestants (including/excluding evangelists) and Catholics in a cell;

iv) Education. We calculated the percentage of adults aged 18 or above who have completed primary education. We furthermore estimated years of education, based on educational attainment (pre-school, primary, middle/JSS, secondary /SSS, vocational, post secondary and tertiary);

v) Fertility. We defined completed fertility as the total number of children born to women aged 35-49 years. We furthermore calculated completed fertility net of mortality, counting the surviving children of 35-49 aged women only. For both measures, we then took the average within each cell;

vi) Child mortality: We defined completed child mortality as the number of children who died as a percentage of children ever born to women aged 35-49 years.

Finally, for child malnutrition, we use height-for-age z-scores and weight-for-age z-scores for children below 5 years from we Ghana Demographic and Health Surveys (DHS) from 1993, 1998, 2003, 2008, 2014, 2016, and 2017 (USAID, 2020). Because, the data is drawn form a survey, the number of cells is smaller than for the census (N=729 versus N=1,895).

2.2. Determinants of Mission Locations and Outcomes for Sub-Saharan Africa

Geography

- **Disease Ecology (Human & Animal):** We use the historical malaria index created by Depetris-Chauvin and Weil (2018). The index measures the prevalence of sickle cell genetic mutations among the native population. For Trypanosomiasis (or tsetse), we use the suitability index from Alsan (2015) approximating the distribution of the tsetse fly vectors. Using GIS we get average historical malaria intensity and tsetse-fly suitability for each cell.
- **Distance to the Coast:** We use GIS to obtain the Euclidean distance (km) to the coast.

Political Conditions

- **Pre-colonial Cities:** Large pre-colonial cities circa 1400 and 1800 are described in Chandler (1987). We create dummies if the cell contains a large pre-colonial city circa 1400 and 1800.
- **Major Cities:** Data on the capital, largest and second largest cities of each country circa 1900 comes from Jedwab and Moradi (2016). We create a dummy equal to one if the cell contains the largest city, the second largest city or the capital city.
- **Year of Colonization:** The year of colonization of each ethnic group (Murdock, 1967) is from Henderson and Whatley (2014). Using the Murdock (1967) map of ethnic boundaries from Nunn (2008), we assign this year of colonization to each cell.
- **State Centralization:** We use the data from Murdock (1967) and create a dummy equal to one if the cell was in an ethnic area with a centralized state before colonization (using the same definition as Gennaioli and Rainer (2007)).

- **Distance to Muslim Centers:** The locations of historical Muslim centers (incl. jihad towns) are derived from Sluglett (2014) and Ajayi and Crowder (1974). We then use GIS to obtain the Euclidean distance from each cell centroid to a Muslim Center.

Transportation

- **Slave Ports:** The location of slave ports in the 1800-1900 period is constructed from the 2016 version of the *Trans-Atlantic Slave Trade Database*. We create a dummy equal to one if a cell contains a slave port.
- **Rivers and Lakes:** We create two dummies equal to one if the cell is within 10 km from a "major navigable river" and a lake as mapped by Johnston (1915).
- **Explorer Routes:** Pre-colonial explorer routes are taken from Nunn and Wantchekon (2011). We create a dummy if the cell is within 10 km of an explorer route.
- **Railroads:** Railroads in 1900 and 1924 are obtained from Jedwab and Moradi (2016) who recreated a GIS database on the history of each railroad line that was built (note that we only know the year of official opening) or planned but not built. The source also indicated the stated purpose of the railroad, whether it was built for military and mining purposes. We create two dummies equal to one if the cell is within 10 km or 30 km of a railroad line.

Population

- **Population Density:** We obtain population density circa 1800 and urban and rural population circa 1900 from the *History Database of the Global Environment* (HYDE 3.1) by (Klein Goldewijk et al., 2010). Klein Goldewijk et al. (2010) do not rely on census data for earlier centuries, since there were no censuses then. Its population estimates are highly unreliable. We nonetheless use it for three controls to be consistent with the literature.
- **City Population:** We use the database of Jedwab and Moradi (2016) to obtain the list of cities above 10,000 inhabitants circa 1900. Jedwab and Moradi (2016) use colonial administrative sources. We then estimate the total urban population of each cell.

Economic Activities

- **Slavery:** We use the log number of slaves exported per land area during the Atlantic and Indian Ocean slave trades from Nunn and Wantchekon (2011). From Murdock (1967), we also know if slavery was practiced by the dominant ethnic group in the cell.
- **Predicted Cash Crop Export Value:** We obtain from the *Global Agro-Ecological Zones* (GAEZ) database compiled by FAO (2015) land suitability measures for seven major export crops: cocoa, coffee, cotton, groundnut, palm oil, rubber, tea and tobacco. We then obtain cash crops' national export value (in British Pounds) circa 1900 and 1924 from League of Nations (1925); Francais (1925); Jewsiewicki (1977); Frankema et al. (2018); Alexopoulou (2019).
- **Mining:** The locations of mines in 1900 and 1924 come from Mamo et al. (2019) We create a dummy equal to one if the cell is within 50 km from a producing mine in 1900 and 1924.

Other Controls

- **Precipitation:** Climate data comes from *Terrestrial Air Temperature and Precipitation: 1900-2007 Gridded Monthly Time Series, Version 1.01*, University of Delaware (Matsuura and Willmott, 2015). We estimate average annual precipitation (mms) in 1900-1960 for each cell.

- **Altitude and Ruggedness:** Topography comes from SRTM3 data and is measured at 3 arc-second resolution (ca. 90m x 90m). We estimate for each 0.1 x 0.1 grid cell the mean and standard deviation of altitude (meters). The standard deviation captures ruggedness.
- **Land Area:** We use GIS to obtain total land area in the cell.
- **Soil Fertility:** Soil fertility comes from FAO (2015). We use GIS to obtain the cell mean.
- **Polygamy:** We create a dummy if the cell belongs to an ethnic group that according to Murdock (1967) practiced polygamy before colonization.
- **Murdock Data:** We create a dummy if Murdock (1967) did not report on state centralization, slavery and polygamy of the main ethnic group in the cell. We also create a dummy if we know the year of the anthropological study used by Murdock (1967) to create his data and two dummies for whether the anthropological survey he used to create his data strictly precedes 1900 or 1924.

Present-day Outcomes for Sub-Saharan Africa

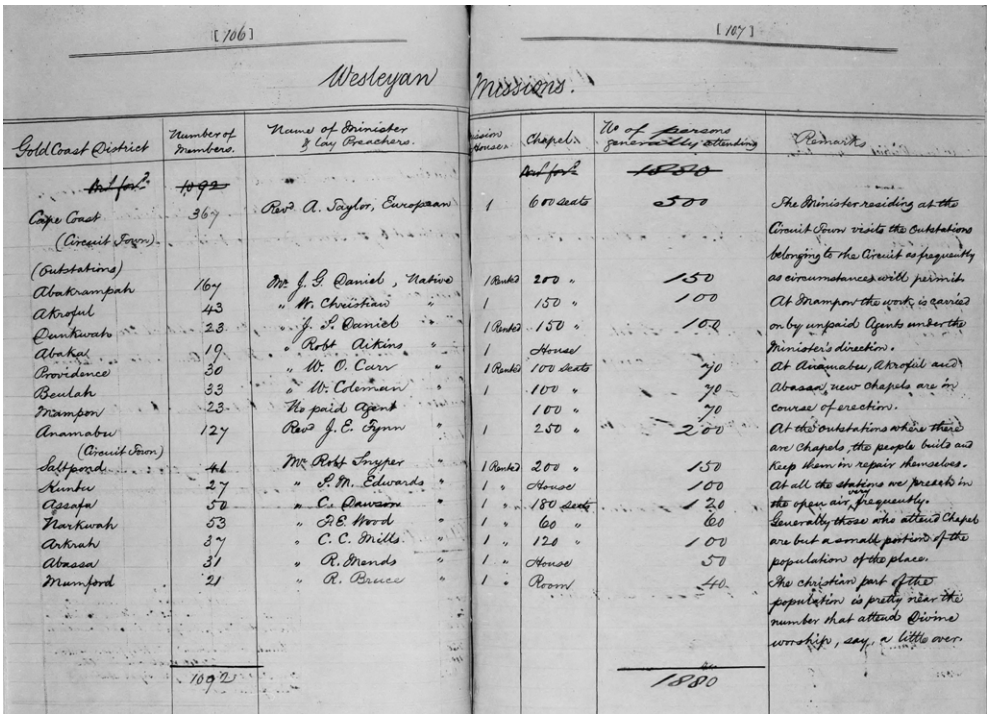
- **Satellite data on night lights:** We use satellite data on night lights in 2010 as a proxy for local economic development (NGDC, 2015). We use the radiance calibrated version of this data, to avoid issues related to top-coding. This data records levels of luminosity beyond the normal digital number upper bound of 63. For each cell, we calculate the mean digital number per sq km of the pixels that fell within the cell.

2.3. Standard Historical Controls Used in the Literature:

We merge the lists of controls from Nunn (2010) and Cagé and Rueda (2016):

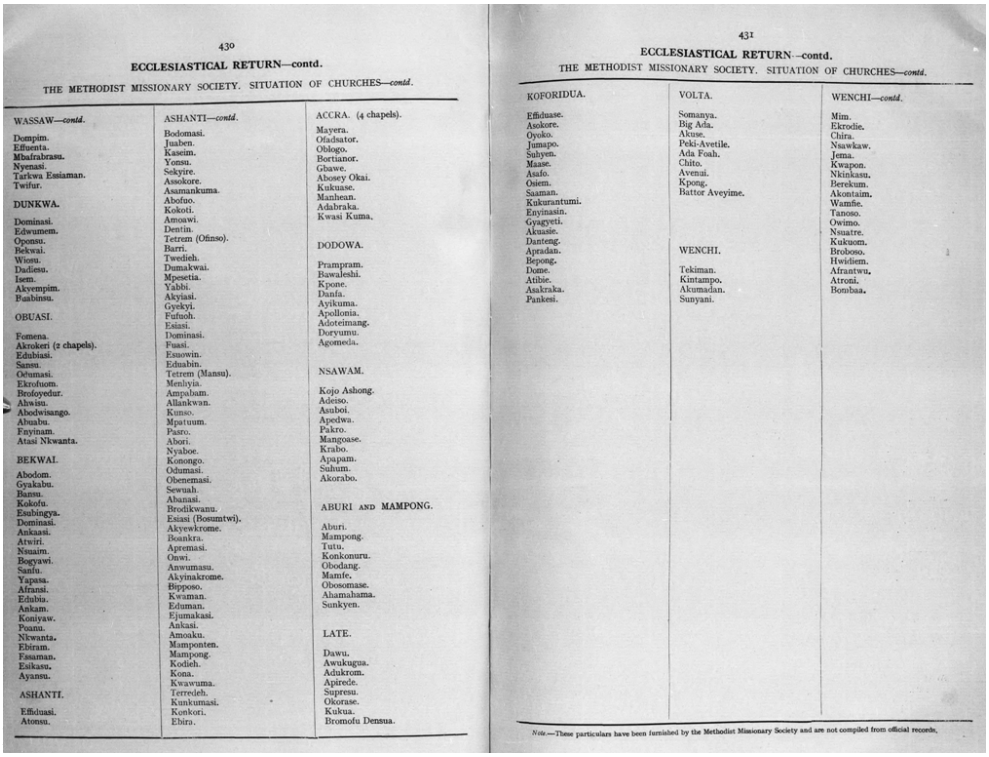
- **Nunn (Table 1, 2010)**: (i) *European explorer routes before colonization*; (ii) *19th century railroads*; (iii) *soil quality*; (iv) *access to a water source*; and (v) *slave exports*. (i) We use the same explorer routes (Nunn and Wantchekon, 2011). For Ghana, the data does not show any European explorers, so there is no variation across cells; (ii) We used the railroad database from Jedwab and Moradi (2016). In Ghana, the first railroad opened in 1901, so there is no variation across cells; (iii) We control for soil fertility using the index from FAO (2015); (iv) We include two dummies equal to one if the cell is within 10 km from a navigable river and a lake (Africa: Johnston, 1915, Ghana: Dickson, 1969) (there are no lakes in Ghana that fully cover a cell); and (v) We control for slave export intensity of the ethnic group in the cell (Nunn, 2008).
- **Cagé and Rueda (Table 1, 2016)** use the controls from Nunn (2010) as well as: (vi) *rainfall*; (vii) *distance to the coast*; (viii) *malaria ecology*; (ix) *initial population density*; and (x) *dummies if large cities in 1400 or 1800*. (vi) We control for average annual rainfall 1900-1960; (vii) We control for distance to the coast; (viii) We control for malaria ecology using the historical malaria index from Depetris-Chauvin and Weil (2018); (ix) We control for initial population density in 1800 using HYDE (2010) - the data is based on interpolated census data, which raises endogeneity concerns due to reverse causality; and (x) We add a dummy if there was a large city in 1400 and 1800 from Chandler (1987) (there was none in Ghana in 1400).

Figure A1: Extracts of the Ecclesiastical Returns in the Blue Books 1867 and 1932



Wesleyan Missions.

Gold Coast District	Number of Members.	Names of Minister & Lay Preachers.	Mission Houses	Chapels	No of Persons generally attending	Remarks
~~As for~~	~~1092~~			~~As for~~	~~1880~~	
Cape Coast (Circuit Town)	367	Revd A. Saylor, European	1	600 seats	500	The Minister residing at the Circuit Town visits the Outstations belonging to the Circuit as frequently as circumstances will permit.
(Outstations)						
Abakrampah	167	Mr J. G. Daniel, Native	1 Built	200 "	150	
Akroful	43	" M. Christian "	1	150 "	100	At Mampon the work is carried on by unpaid Agents under the Minister's direction.
Dunkwah	23	" J. P. Daniel "	1 Built	150 "	100	
Abakai	19	" Robt Aikins "	1	House		
Providence	30	" W. O. Carr "	1 Built	100 Seats	70	At Anamabu, Akroful and Abasaa new chapels are in course of erection.
Beulah	33	" W. Coleman "	1	100 "	70	
Mampon	23	No paid Agent		100 "	70	
Anamabu	127	Revd J. E. Fynn "	1	250 "	200	At the Outstations where there are Chapels the people built and keep them in repair themselves.
(Circuit Town)						
Saltpond	41	Mr Robt Snyper "	1 Built	200 "	150	At all the stations we preach in the open air frequently.
Kunbu	27	" P. M. Edwards "	1 "	House	100	
Asafu	50	" C. Dawson "	1 "	180 Seats	120	Generally those who attend Chapels are but a small portion of the population of the place.
Nankwah	53	" R. E. Wood "	1 "	60 "	60	
Ankrah	37	" C. C. Mills "	1 "	120 "	100	
Abasaa	31	" R. Mands "	1 "	House	50	
Mumford	21	" R. Bruce "	1 "	Room	40	The christian part of the population is pretty near the number that attends Divine worship, say, a little over.
	1092				1880	



430

ECCLESIASTICAL RETURN—contd.

THE METHODIST MISSIONARY SOCIETY. SITUATION OF CHURCHES—contd.

WASSAW—contd.

Dompim.
Effuenta.
Mbafrabrasu.
Nyenasi.
Tarkwa Essiaman.
Twifur.

DUNKWA.

Dominasi.
Edwumem.
Oponsu.
Bekwai.
Wiosu.
Dadiesu.
Isem.
Akvempim.
Asabinsu.

OBUASI.

Fomena.
Akrokeri (2 chapels).
Edubiasi.
Sansu.
Obumasi.
Ekroduom.
Brofoyedur.
Abwisu.
Abedwisango.
Abuabu.
Fnyinam.
Atasi Nkwanta.

BEKWAI.

Abodom.
Gyakabu.
Bansu.
Kokofu.
Esubingya.
Dominasi.
Ankaasi.
Atwiri.
Nsuaim.
Bogyawi.
Sanfu.
Yapasa.
Afransi.
Edubiu.
Ankam.
Koniyaw.
Poanu.
Nkwanta.
Ebiram.
Essaman.
Esikasu.
Ayansu.

ASHANTI.

Effiduasi.
Atonsu.

ASHANTI—contd.

Bodomasi.
Juaben.
Kaseim.
Yonsu.
Sekyire.
Assokore.
Asamankuma.
Abofoo.
Kokoti.
Amoawi.
Dentin.
Tetrem (Ofinso).
Barri.
Twedieh.
Dumakwai.
Mpesetia.
Yabbi.
Akyiasi.
Gyekyi.
Fufuoh.
Esiasi.
Dominasi.
Fuasi.
Esuowin.
Eduabin.
Tetrem (Mansu).
Menkyia.
Ampabam.
Allankwan.
Kumso.
Mpatuum.
Pasro.
Abori.
Nyaboe.
Konongo.
Odumasi.
Obenemasi.
Sewuah.
Abanasi.
Brofikwanu.
Esiasi (Bosumtwi).
Akyewkrome.
Boankra.
Apremasi.
Onwi.
Anwumasu.
Akyinakrome.
Bipposo.
Kwaman.
Eduman.
Ejumakasi.
Ankasi.
Amoakn.
Mamponten.
Mampong.
Kodieh.
Kona.
Kwawuma.
Terredeh.
Kunkumasi.
Konkori.
Ebira.

ACCRA. (4 chapels).

Mayera.
Ofadsator.
Obloggo.
Bortianor.
Gbawe.
Abosey Okai.
Kukuase.
Manhean.
Adabraka.
Kwasi Kuma.

DODOWA.

Prampram.
Buwaleshi.
Kpone.
Danfa.
Ayikuma.
Apollonia.
Adoteimang.
Doryumu.
Agomeda.

NSAWAM.

Kojo Ashong.
Adeiso.
Asuboi.
Apedwa.
Pakro.
Mangoase.
Krabo.
Apapam.
Suhum.
Akorabo.

ABURI AND MAMPONG.

Aburi.
Mampong.
Tutu.
Konkonuru.
Obodang.
Mamfe.
Obosomase.
Ahamahama.
Sunkyen.

LATE.

Dawu.
Awukugua.
Adukrom.
Apiredc.
Supreso.
Okorase.
Kukua.
Bromofu Densua.

431

ECCLESIASTICAL RETURN—contd.

THE METHODIST MISSIONARY SOCIETY. SITUATION OF CHURCHES—contd.

KOFORIDUA.

Effiduase.
Asokore.
Oyoko.
Jumapo.
Suhyen.
Maase.
Asafo.
Osiem.
Saaman.
Kukurantumi.
Enyinasin.
Gyagyeti.
Akuasie.
Danteng.
Apradan.
Bepong.
Dome.
Atibie.
Anakraka.
Pankesi.

VOLTA.

Somanya.
Big Ada.
Akuse.
Peki-Avetile.
Ada Foah.
Chito.
Avenai.
Kpong.
Battor Aveyime.

WENCHI.

Tekiman.
Kintampo.
Akumadan.
Sunyani.

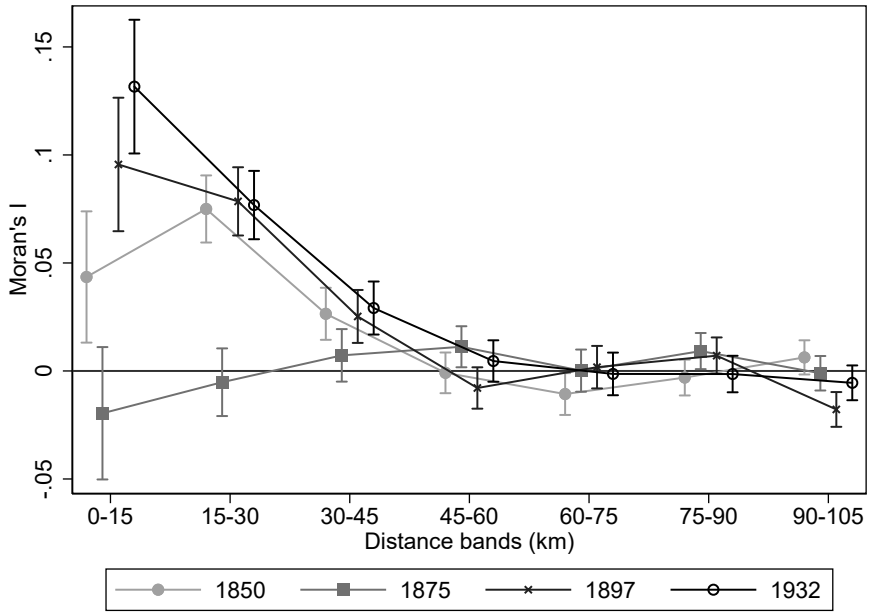
WENCHI—contd.

Mim.
Ekrodie.
Chira.
Nsawkaw.
Jema.
Kwapon.
Nkrankam.
Berekum.
Akontaim.
Wamfie.
Tanoso.
Owimo.
Nsuatre.
Kukuom.
Broboso.
Hwidiem.
Afrantwu.
Atroni.
Bombaa.

Note.—These particulars have been furnished by the Methodist Missionary Society and are not compiled from official records.

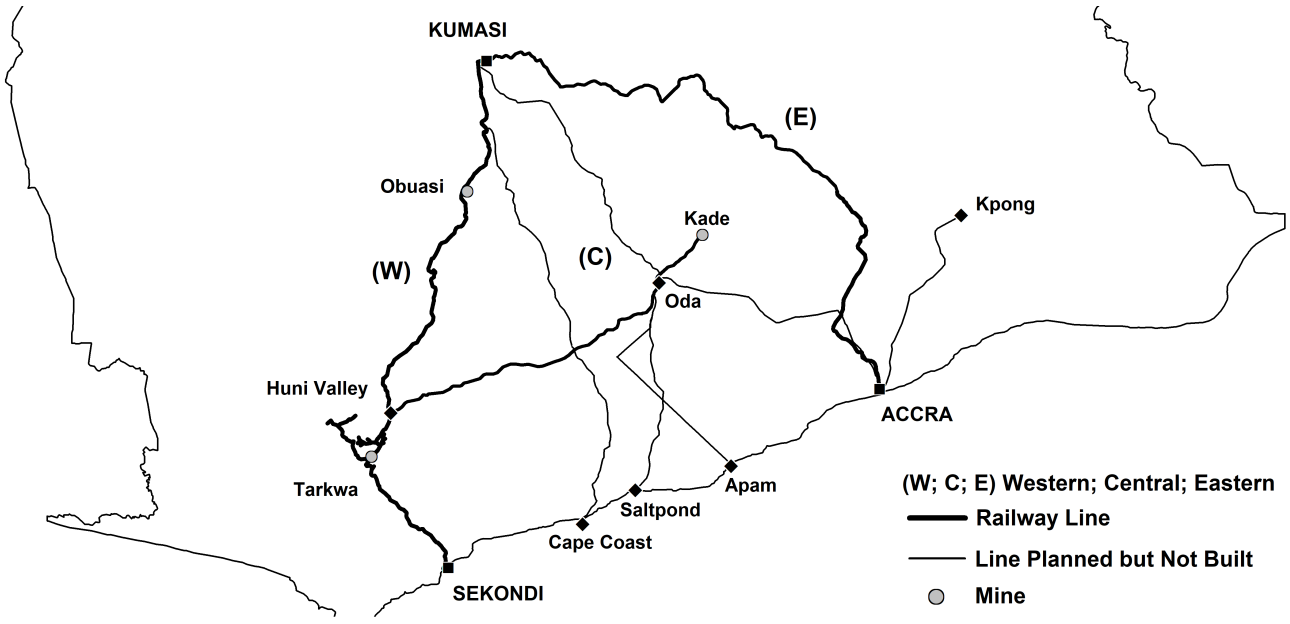
Notes: Ecclesiastical Returns submitted by the mission societies every year to the colonial government and published in the Blue Books are the main source of our mission data. They state the names of main and out-stations, where clerical services were offered. Earlier Blue Books detail other information including number of church members, name of the missionary, size of the chapel/church/cathedral and the number of persons attending. Names of mission stations were matched across years and coordinates of the locations were extracted from Gazetteers.

Figure A2: Spatial Correlogram of Regression Residuals from Table 1



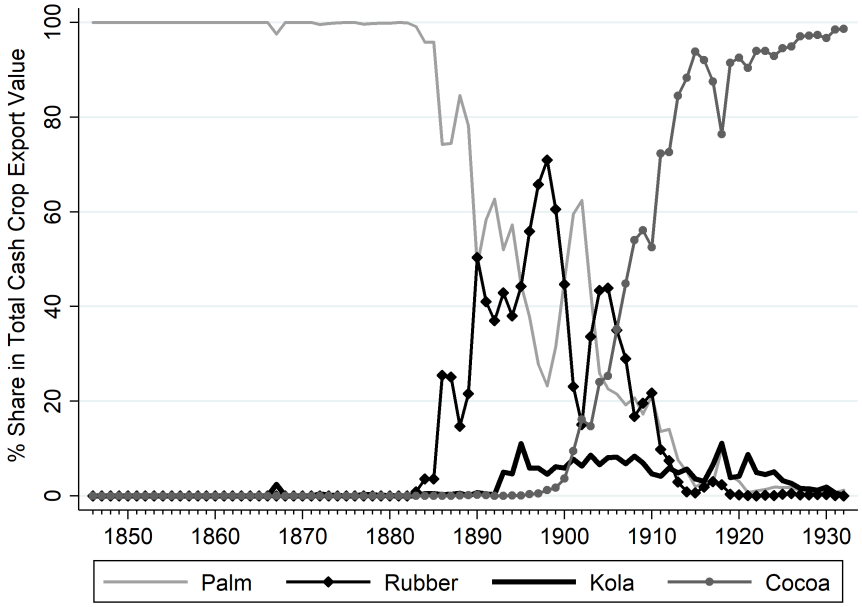
Notes: This graph shows Moran's I of the residuals from each regression in Table 1 at 15 km distance bands 0-15, 15-30, ... 90-105 km. Positive/ negative I's indicate positive/negative spatial autocorrelation. Error bars show the 95% CI intervals. Moran's I becomes insignificant after the 30-45 km band. This motivates the choice of 100 km for the Conley standard errors. When estimating a SAR model defining adjacent cells as neighbors and $w_{ij} = 1$ for first-order neighbors and $w_{ij} = 0.5$ for second-order neighbors, standard errors are generally larger (available on request).

Figure A3: Built Railroads and Placebo Railroads in Ghana, 1897-1932



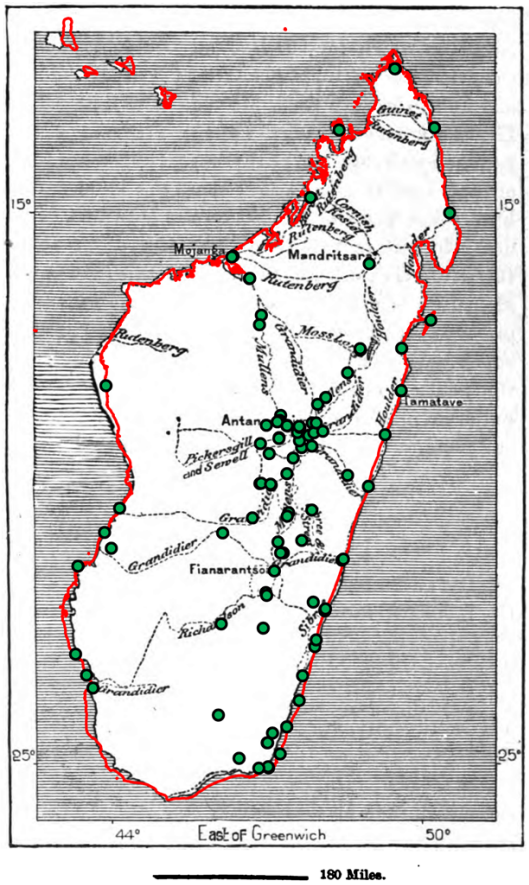
Notes: The map displays railroads in 1932: (i) The ***Western Line (1897-1911)***: The line connects two gold fields (Tarkwa and Obuasi) and the Ashante capital Kumasi to the port of Sekondi; (ii) The ***Eastern Line (1907-1923)***: The line connects the colonial capital Accra to Kumasi; and (iii) The ***Central Line (1925-1927)*** (Huni-Valley-Kade): The line was built parallel to the coast to connect fertile land and a diamond mine (Kade). There are five ***lines that were planned but not built***: Cape Coast-Kumasi 1873, Saltpond-Kumasi 1893, Apam-Kumasi 1897, Accra-Kumasi 1897 and Accra-Kpong 1898. (W), (E) and (C) show the western route, the eastern route, and the central route respectively.

Figure A4: Export Revenues of the Four Main Export Crops in Ghana, 1846-1932



Notes: The figure shows the percentage share of four cash crops in the total value of cash crop exports for Ghana in 1846-1932 (in constant British pounds; data not available for earlier years). See Web Data Appendix for data sources.

Figure A5: Explorer Routes Not Used by Nunn (2014) and Mission Stations in 1924 in Madagascar



Notes: The figure shows "chief routes of explorers" as of 1885 from Reclus and Keane (1890, p. 425) (dotted lines with an explorer's name attached to it) and the location of the mission stations (circles) circa 1924 (taken from Roome (1925)).

Table A1: 50 SELECTED STUDIES ON THE LONG-TERM EFFECTS OF COLONIAL MISSIONS, 2010-2020

Study	Location	Unit	Correlation	Outcome	Mission Years
Nunn (2010, 2014)**	SSA	Individual	+	Christianity, years educ., gender attitudes	1924†
Gallego and Woodberry (2010)*	SSA	Regional	+	Literacy, years educ.	1914, 1923
Woodberry (2012)*	SSA	Cross-cntry	+	Democracy	1923
Lankina and Getachew (2012)***	India	District	+	Literacy	1901, 1911, 1921, 1931
Cogneau and Moradi (2014)**	Ghana	Individual	+	Literacy, religion, height	1902, 1925, 1938
Acemoglu et al. (2014)*	SSA, Asia, LAC	Cross-cntry	+	Years educ.	1923
Chen et al. (2014)***	China	County	+	GDP/c, years educ., child mortality	1920
Mantovanelli (2014)	SSA	Individual	+	HIV infection rates, HIV-related sexual behavior	1908, 1911†
Jones (2014)**	Canada	Individual	+/-	Religion, marriage, fertility, etc.	1920-1985
Dimico (2014)	SSA	Individual	+	Child malnutrition	1924†
Wietzke (2014)**	Madagascar	District	+	Private schooling	1904
Fourie and Swanepoel (2015)**	South Africa	Individual	o	Years educ.	1849†
Wietzke (2015)**	Madagascar	District	+/o	School supply, income	1904
Fenske (2015)**	SSA	District	-	Polygamy	1924†
Bai and Kung (2015)***	China	County	+	Urbanization, industrial firms	1920
Owolabi (2015)*	Developing	Cross-cntry	o	Literacy, democracy	1923
Wantchekon et al. (2015)	Benin	Individual	+	Years educ., social mobility, political activism, etc.	retrosp. interviews
Obikili (2016)	Nigeria	Province	+	Literacy	1924†
Wuepper and Sauer (2016)**	Ghana	Individual	-	Performance of contract farming	1924†
Cagé and Rueda (2016, 2020)**	SSA	Individual	o	Newspaper readership, trust, educ., HIV	1900, 1929†
Waldinger (2017)	Mexico	Locality	+	Literacy, years educ., religion	1542-1810†
Kudo (2017)**	Malawi	Individual	-/+	Polygamy, women's marriage age	1924†
Okoye and Pongou (2017)**	Nigeria	Individual	+	Years educ, literacy, wealth, urban etc.	1924, 1928†
Montgomery (2017)**	Tanzania	Individual	+	Years educ., literacy	1914, 1924†
Wuepper and Sauer (2017)**	Ghana	Individual	-	Social capital	1902, 1924, 1925, 1938†
Barro and McCleary (2017)***	Guatemala	Department	+	Literacy, School enrollment	1880-2011
Castelló-Climent et al. (2018)**	India	District	+	Luminosity	1908, 1911†
Anderson (2018)**	SSA	Grid cell	o	Common law	1924†
Calvi and Mantovanelli (2018)**	India	Individual	+	BMI, height, health status	1908, 1911†
Michalopoulos et al. (2018)**	SSA	Individual	+	Educ., wealth	1924†
Calvi et al. (2021)**	India	Individual	+	Educ., gender equality	1908, 1911†
Valencia Caicedo (2019)**	3 LAC	Municipality	+	Educ., literacy, income, skilled labor etc.	1609-1767
Dahlum and Wig (2019)**	SSA	Individual	+	Mass protests	1924†
Funjika and Getachew (2019)**	8 SSA countries	Individual	+	Skills	1924†
Ricart-Huguet (2019a)**	SSA	District	+	Pre-col. trading posts	1919-33
Ricart-Huguet (2019b)*	SSA	District	+	Post-independ. minister shares	1923†
Feir et al. (2019)**	U.S.	Individual	+/-	Educ., income, land allotment	1567-1861†
Henn et al. (2019)**	SSA	Individual	+	Educ., pol. participation	1911, 1924†
Walters et al. (2019)**	5 SSA countries	Individual	+	Educ. mobility	1924†
Ma (2019)**	China	Prefecture	+	Scientific works	1581-1720†
Boateng et al. (2019)**	Ghana	Individual	+	Educ., wealth	1924†
Menon and McQueeney (2020)**	India	Individual	-	Stunting	1908, 1911†
Alpino and Hammersmark (2021)**	SSA	Individual	+	Development aid project allocation	1900, 1924†
Ananyev and Poyker (2021)**	SSA	Individual	+	Intolerance of homosexuality	1900, 1924†
Baten et al. (forthcominga)**	SSA	District	-	Educ. gender gap	1924†
Bergeron (2020)**	DRC	Individual	+	Scope of morality	1924, 1935†
von Borzyskowski and Kuhn (2020)**	SSA	Individual	+	Pre-electoral violence	1900†
Alesina et al. (2021)**	SSA	Individual	+	Educ. mobility	1900, 1924†
Baten et al. (forthcomingb)**	SSA	District	-	Educ. gender gap	1924†
Okoye (2021)**	SSA, Nigeria	Individual	+	Educ., occup. choices, wealth, etc.	1924, 1928†

Notes: * Study uses the share/number of European missionaries. ** Study uses mission locations. *** Study uses the share/number of Christian converts. † Study uses a mission atlas.

Table A2: DESCRIPTIVE STATISTICS FOR THE VARIABLES OF THE MAIN TABLES 1/2

Variable	Obs	Mean	Std.Dev.	Min	Max
TABLE 1					
Dummy if Mission in the Cell 1850	2,091	0.01	0.10	0.00	1.00
Dummy if Mission in the Cell 1875	2,091	0.02	0.15	0.00	1.00
Dummy if Mission in the Cell 1897	2,091	0.07	0.25	0.00	1.00
Dummy if Mission in the Cell 1932	2,091	0.23	0.42	0.00	1.00
Historical Malaria Index	2,091	6.38	1.79	2.02	10.10
Log Distance to Coast	2,091	5.25	1.12	1.61	6.49
Dummy if Port in the Cell 1850	2,091	0.01	0.09	0.00	1.00
Dummy if Outside Gold Coast Colony 1850	2,091	0.76	0.43	0.00	1.00
Dummy if Navigable River 10 Km	2,091	0.09	0.29	0.00	1.00
Dummy if Ashanti Trade Route 1850 10 Km	2,091	0.25	0.43	0.00	1.00
Dummy if Non-Ashanti Trade Route 1850 10 Km	2,091	0.30	0.46	0.00	1.00
Dummy if Railroad 1932 10 Km	2,091	0.05	0.22	0.00	1.00
Log Urban Population 1891	2,091	0.34	1.63	0.00	10.38
Log Urban Population 1901	2,091	0.51	1.91	0.00	10.31
Log Rural Population 1901	2,091	1.87	3.02	0.00	8.82
Log Urban Population 1931	2,091	1.37	2.91	0.00	11.01
Log Rural Population 1931	2,091	4.36	3.37	0.00	9.74
Dummy if Palm Oil Plantation 1900-1936 50 Km	2,091	0.14	0.34	0.00	1.00
Dummy if Kola-Producing Cell 1932	2,091	0.08	0.28	0.00	1.00
Dummy if Cocoa-Producing Cell 1927	2,091	0.14	0.35	0.00	1.00
TABLE 2					
Mission Dummy	276,012	0.05	0.21	0.00	1.00
Historical Malaria $\times$ Dummy 1825-1849	276,012	1.21	2.62	0.00	10.10
Historical Malaria $\times$ Dummy 1850-1897	276,012	2.32	3.25	0.00	10.10
Historical Malaria $\times$ Dummy 1898-1932	276,012	1.69	2.96	0.00	10.10
Any Missionary	93,253	0.01	0.12	0.00	1.00
Any Euro. Missionary	93,253	0.01	0.08	0.00	1.00
Any Euro. Resid. Missionary	93,243	0.00	0.05	0.00	1.00
Any Afri. Missionary	93,243	0.01	0.11	0.00	1.00
Historical Malaria $\times$ Dummy 1850-1897	93,253	5.79	2.49	0.00	10.10
TABLE 3					
Mission Dummy 1932	2,091	0.23	0.42	0.00	1.00
Railroad 0-30 Km 1932	2,091	0.14	0.35	0.00	1.00
Using Western Line Only	2,091	0.06	0.24	0.00	1.00
Using Other Lines Only	2,091	0.08	0.27	0.00	1.00
Using Placebo Lines Only	2,091	0.03	0.18	0.00	1.00
IV: 30 Km from Straight Lines	2,091	0.10	0.30	0.00	1.00
Mission Year t	75,276	0.13	0.34	0.00	1.00
Railroad 0-30 Km Year t	75,276	0.08	0.27	0.00	1.00
TABLE 4					
Based on Palm Oil, Rubber, Kola & Cocoa Prod.	181,917	1.70	3.09	0.00	10.58
Based on Contemporary Palm Oil & Cocoa Suit.	181,917	1.75	3.27	0.00	9.74
Based on Historical Palm Oil, Rubber & Cocoa Suit.	181,917	3.43	3.42	0.00	9.16
Based on Palm Oil Production Only	181,917	0.89	2.28	0.00	7.88
Based on Rubber Production Only	181,917	0.77	1.97	0.00	7.62
Based on Kola Production Only	181,917	0.30	1.32	0.00	7.64
Based on Cocoa Production Only	181,917	0.51	2.04	0.00	10.54
Based on Hist. Moderate, High & Very High Cocoa Suit.	181,917	1.03	2.64	0.00	10.37
TABLE 5					
Dummy if Mission Defined in 1900	203,574	0.00	0.06	0.00	1.00
Dummy if Mission Defined in 1924	203,574	0.01	0.07	0.00	1.00
Rail 0-30 Km - 1900	203,574	0.03	0.17	0.00	1.00
Rail 0-30 Km - 1924	203,574	0.09	0.29	0.00	1.00
Rail 0-30 Km Dummy Military-Mining Lines 1900	203,574	0.02	0.15	0.00	1.00
Rail 0-30 Km Dummy Military-Mining Lines 1924	203,574	0.04	0.20	0.00	1.00
IV: 30 Km from EMST Network	203,574	0.07	0.25	0.00	1.00
Rail 0-30 Km Dummy 1916 & 1922 Placebo Lines 1900	203,574	0.09	0.28	0.00	1.00
Rail 0-30 Km Dummy 1916 & 1922 Placebo Lines 1924	203,574	0.08	0.27	0.00	1.00
Dummy if Mission Year t	415,709	0.00	0.06	0.00	1.00
Rail 0-30 Km Dummy Year t	415,464	0.04	0.18	0.00	1.00
Dummy if Mission Year t	493,822	0.00	0.04	0.00	1.00
Log Predicted Cash Crop Year t	493,822	1.03	1.91	0.00	8.86

Table A2: DESCRIPTIVE STATISTICS FOR THE VARIABLES OF THE MAIN TABLES 2/2

Variable	Obs	Mean	Std.Dev.	Min	Max
TABLE 6					
Historical Malaria Index	203,574	0.04	0.04	0.00	0.18
Tsetse Index	203,574	0.41	0.17	0.00	0.69
Log Distance to Coast	203,574	6.08	1.22	0.02	7.45
Dummy if Large Pre-Colonial City 1400	203,574	0.00	0.02	0.00	1.00
Dummy if Largest or 2nd Largest City 1901	203,574	0.00	0.04	0.00	1.00
Year of Colonization	203,574	1796	411	0	1922
Dummy if Centralized State (Murdock)	203,574	0.23	0.42	0.00	1.00
Log Distance to Muslim Center	203,574	6.37	0.91	1.61	7.79
Dummy if Slave Port in the Cell 1800-1900	203,574	0.00	0.03	0.00	1.00
Dummy if Navigable River 10 Km	203,574	0.03	0.16	0.00	1.00
Dummy if Explorer Route 10 Km	203,574	0.06	0.24	0.00	1.00
Dummy if Railroad 1900 10 Km	203,574	0.01	0.10	0.00	1.00
Dummy if Railroad 1924 10 Km	203,574	0.03	0.18	0.00	1.00
Log City Pop. ca 1900 (Loc.$\geq$10,000)	203,574	0.01	0.29	0.00	12.07
Log Urban Population 1900	203,574	0.14	0.91	-1.80	11.69
Log Rural Population 1900	203,574	4.28	2.38	-1.82	11.84
Dummy if Slavery (Murdock)	203,574	0.46	0.50	0.00	1.00
Log Norm. Slave Exports 15th-19th Cent.	203,574	0.14	0.44	0.00	3.77
Log Pred. Cash Crop Export Val. 1900	203,574	0.34	1.42	-5.69	7.56
Log Pred. Cash Crop Export Val. 1924	203,574	1.87	2.48	-3.28	8.90
Polygamy	203,574	0.33	0.47	0.00	1.00
TABLE 7					
Atlas Mission in Beach in 1900	2,091	0.01	0.11	0.00	1.00
Atlas Mission in Roome in 1924	2,091	0.01	0.10	0.00	1.00
Mission in Year t	2,091	0.07	0.26	0.00	1.00
Created 1751-1850	2,091	0.01	0.10	0.00	1.00
Created 1851-1875	2,091	0.02	0.12	0.00	1.00
Log Num. Mis. Year t	2,091	0.07	0.28	0.00	2.56
Main Station Year t	2,091	0.02	0.12	0.00	1.00
School Year t	2,091	0.02	0.15	0.00	1.00
Euro Resid 1846-90	2,069	0.02	0.13	0.00	1.00
Euro Visit 1846-90	2,069	0.02	0.14	0.00	1.00
TABLE 8					
Log Night Light Intensity in the Cell in 2010	2,091	0.26	0.57	0.00	4.68
Census Mission Dummy - 1900	2,091	0.07	0.26	0.00	1.00
Census Mission Dummy - 1924	2,091	0.18	0.38	0.00	1.00
Atlas Mission Dummy - 1900	2,091	0.01	0.12	0.00	1.00
Atlas Mission Dummy - 1924	2,091	0.01	0.11	0.00	1.00
Non-Atlas Mission Dummy - 1900	2,091	0.06	0.23	-1.00	1.00
Non-Atlas Mission Dummy - 1924	2,091	0.17	0.38	-1.00	1.00
Log Night Light Intensity in the Cell in 2010 - Africa	203,574	0.07	0.34	0.00	6.49
Atlas Mission Dummy - 1900 - Africa	203,574	0.00	0.06	0.00	1.00
Atlas Mission Dummy - 1924 - Africa	203,574	0.01	0.07	0.00	1.00
TABLE 9					
See Tables 7 and 8					

Table A3: MALARIA & MISSIONARY EXPANSION, INTENSIVE MARGIN, DENOMINATIONS

Dep. Var. in Cell c in Year t: (Census Missions Only)	Dummy Mission	Log Num. Missions	Dummy Main Stat.	Dummy School	Dummy Mainline	Dummy Other Prot.	Dummy Catho
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Hist.Malaria*Dummy 1850-1897	0.020***	-0.002***	0.002***	0.004***	0.020***	0.000	_
	[0.002]	[0.000]	[0.000]	[0.000]	[0.002]	[0.000]	_
Mission Dummy c, t		1.054***	0.151***	0.238***			
		[0.012]	[0.005]	[0.010]			
Cell FE, Year FE	Y	Y	Y	Y	Y	Y	_

Notes: For 2,091 cells c and 98 years t (1800-1897) (N = 204,918), we regress the log of (number of missions + 1) or a dummy if there is a specific type of mission in cell c in t on historical malaria interacted with a dummy if the year is between 1850 and 1897. 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A4: RAILROAD DUMMIES AND MISSIONARY EXPANSION, LONG-DIFFERENCES

Dep. Var.:	Dummy if Census Mission in the Cell in the Indicated Year:					
	Col. (1)-(3): Railroad Era			Col. (4)-(6): Pre-Railroad Era		
	(1) 1932	(2) 1932	(3) 1932	(4) 1850	(5) 1875	(6) 1897
Panel A:						
Dummy Railroad 1932 0-10 Km	0.215***	0.247***	0.237***	-0.025**	-0.01	0.092
	[0.044]	[0.052]	[0.061]	[0.013]	[0.021]	[0.068]
Dummy Railroad 1932 10-20 Km	0.091***	0.123***	0.113**	-0.016	0.006	-0.027
	[0.016]	[0.038]	[0.044]	[0.015]	[0.014]	[0.032]
Dummy Railroad 1932 20-30 Km	0.174***	0.206**	0.196**	-0.004	0.029	0.022
	[0.064]	[0.082]	[0.086]	[0.019]	[0.023]	[0.027]
Dummy Railroad 1932 30-40 Km		0.099	0.090			
		[0.071]	[0.079]			
Dummy Railroad 1932 40-50 Km			-0.036			
			[0.038]			
Panel B:	0.162***	0.194***	0.184***	-0.015	0.008	0.031
Dummy Railroad 1932 0-30 Km	[0.033]	[0.051]	[0.058]	[0.014]	[0.020]	[0.033]
Ctrls Excl. Pop./ Crops/ Roads ca 1931	Y	Y	Y	Y	Y	Y

Notes: For 2,091 cells and each period [t-s;t], we regress a dummy if there is a mission in t on a dummy if there is a mission in t-s and the controls of Table 1 except the ones measuring population, crops or roads circa 1931. Since we include a lag of the dependent variable, these cross-sectional regressions can be interpreted as long-difference regressions. **Panel A:** Using several rail dummies. **Panel B:** Using one rail dummy (0-30 Km). 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A5: RAILROADS AND MISSIONARY EXPANSION, INTENSIVE MARGIN

Year:	1932	1897	1932	1932	t	t
Strategy:	Baseline	Pre-Trend	Ethnic FE	IV Straight	Panel	Cell Trends
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A:	Dep. Var.: Log Number of Census Missions in the Indicated Year					
Rail 0-30 Km	0.026	-0.012	0.130**	0.063	0.137***	0.135***
	[0.071]	[0.021]	[0.058]	[0.1094]	[0.012]	[0.030]
Panel B:	Dep. Var.: Dummy if Main Census Mission Station in the Indicated Year					
Rail 0-30 Km	0.016	-0.004	0.028	0.038	0.043***	0.042***
	[0.022]	[0.007]	[0.029]	[0.0450]	[0.004]	[0.010]
Panel C:	Dep. Var.: Dummy if Census Mission School in the Indicated Year					
Rail 0-30 Km	-0.002	0.000	0.044*	0.000	0.043***	0.042**
	[0.024]	[0.020]	[0.024]	[0.0860]	[0.006]	[0.016]
Control Mission Dummy	Y	Y	Y	Y	Y	Y
Obs.	2,091	2,091	2,091	2,088	75,276	75,276

Notes: Col. (1) & (3)-(4): For 2,091 cells and the period [1897; 1932], we regress the dep. var. in 1932 on the same dep. var. defined in 1897, a dummy if a mission exists in 1932, and the controls of Table 1 except for the ones capturing local economic development ca 1932. Col. (2): We use the same regression but for the full pre-1897 period. Col. (3): We add ethnic group FE. Col. (4): We instrument the rail dummy with a dummy if the cell is within 30 km from the straight lines Accra-Kumasi and Sekondi-Kumasi (IV F-Stat. = 40; nodes dropped). Col. (5): For 2,091 cells c and 36 years t (1897-1932), we regress the dep. var. in cell c in t on a dummy if cell c is within 30 km of a railroad in year t. Col. (6): We use the same model as in col. (5) but add cell-specific linear trends. 100 Km Conley SE's (clustered at the district (1931) level in Col. (6) as Conley SEs are too computationally intensive): * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources

Table A6: RAILROADS AND MISSIONARY EXPANSION, DENOMINATIONS

Year:	1932	1897	1932	1932	t	t
Strategy:	Baseline	Pre-Trend	Ethnic FE	IV Straight	Panel	Cell Trends
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A:	Dep. Var.: Dummy if Mainline Protestant Census Mission in the Indicated Year					
Rail 0-30 Km	0.169***	0.033	0.168***	0.242**	0.145***	0.141***
	[0.046]	[0.041]	[0.044]	[0.1230]	[0.011]	[0.026]
Panel B:	Dep. Var.: Dummy if Other Protestant Census Mission in the Indicated Year					
Rail 0-30 Km	0.090*	0.001	0.105**	0.227*	0.098***	0.096***
	[0.052]	[0.001]	[0.050]	[0.1211]	[0.012]	[0.021]
Panel C:	Dep. Var.: Dummy if Catholic Census Mission in the Indicated Year					
Rail 0-30 Km	0.032	-0.002	0.117***	0.013	0.129***	0.125***
	[0.048]	[0.004]	[0.041]	[0.1133]	[0.013]	[0.046]
Obs.	2,091	2,091	2,091	2,088	75,276	75,276

Notes: Col. (1) & (3)-(4): For 2,091 cells and period [1897; 1932], we regress the dep. var. in 1932 on the same dep. var. defined in 1897 and the controls of Table 1 except for the ones capturing local economic development ca 1932 (see text for details). See the notes of Web Appendix Table A5 for details on each regression/column. 100 Km Conley SE's (clustered at the district (1931) level in Col. (6) as Conley SEs are too computationally intensive): * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources

Table A7: CROPS & MISSIONARY EXPANSION, INTENSIVE MARGIN, DENOMINATIONS

Dep. Var. in Cell c in Year t: (Census Missions Only)	Dummy Mission	Log Num. Missions	Dummy Main Stat.	Dummy School	Dummy Mainline	Dummy Ot. Prot.	Dummy Catho
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log Pred Cash Crop Exp. Value c,t	0.028***	0.005***	0.001***	0.000	0.025***	0.005***	0.011***
	[0.001]	[0.001]	[0.000]	[0.000]	[0.001]	[0.001]	[0.001]
Mission Dummy c,t		1.018***	0.101***	0.183***			
		[0.009]	[0.001]	[0.007]			
Cell FE, Year FE	Y	Y	Y	Y	Y	Y	Y

Notes: For 2,091 cells c and 87 years t (1846-1932; N = 181,917), we regress the dependent variable in cell c in t on log predicted cash crop export value in cell c in t. 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A8: RAILROADS AND MISSIONS, INTENSIVE MARGIN, DENOMINATIONS, AFRICA

Test:	Baseline	Ethnic FE	District FE	Military & Mining	Placebo 1916 & 1922	IV EMST Network
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A:	Dependent Variable: Log Number of Atlas Missions in Beach ca. 1900					
Rail 30 Km	0.000	0.000	-0.000	0.000	-0.000	0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
Panel B:	Dependent Variable: Log Number of Atlas Missions in Roome ca. 1924					
Rail 30 Km	0.000**	0.000**	0.000	-0.000*	-0.000	-0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
Panel C:	Dependent Variable: Dummy if Protestant Atlas Mission in Roome ca. 1924					
Rail 30 Km	0.009***	0.008***	0.005***	0.006***	0.001*	0.026**
	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]	[0.012]
Panel D:	Dependent Variable: Dummy if Catholic Atlas Mission in Roome ca. 1924					
Rail 30 Km	0.003***	0.003***	0.003***	-0.001	-0.000	0.003
	[0.001]	[0.001]	[0.001]	[0.001]	[0.000]	[0.004]
Panel E:	Dependent Variable: Dummy if Mainline Protestant Atlas Mission in Beach ca. 1900					
Rail 30 Km	0.007**	0.007***	0.007**	0.008***	0.001	0.016***
	[0.003]	[0.002]	[0.003]	[0.003]	[0.001]	[0.005]
Panel F:	Dependent Variable: Dummy if Non-Mainline Protestant Atlas Mission in Beach ca. 1900					
Rail 30 Km	0.003***	0.003***	0.002**	0.003**	0.000	0.005
	[0.001]	[0.001]	[0.001]	[0.001]	[0.000]	[0.003]
Obs.	203,574	203,574	203,574	203,574	203,574	203,574

Notes: Panels A-F: For 203,574 cells, we regress the dependent variable on the 0-30 Km rail dummy and the controls of Table 6 except the population level, cash crop and mining variables defined for the year 1900 in col. (1) and the year 1924 in col. (2) (but we control for mining in col. (4)). Col. (1)-(6) are organized like rows 1-6 in Table 5. Col. (6): IV F = 49/82. We use 1924 for Panels C-D because only Roome has information on both Protestants and Catholics. We use 1900 for Panels E-F because only Beach has detailed information on Protestants. Robust SE's clustered at the district (2000) level: * p<0.10, ** p<0.05, *** p<0.01. See Web Appx. for data sources.

Table A9: RAIL, CROPS AND MISSIONS, INTENSIVE MARGIN, DENOMINATIONS, AFRICA

Effect of ...	(1) Rail 0-30 Km Dummy t		(2) Log $\widehat{\text{Cash Crop}}$ t	
Dependent Variable ... in Year t:	Coeff.	SE	Coeff.	SE
Panel A: Intensive Margin				
1. Dummy if Atlas Mission t	0.003**	[0.001]	0.001***	[0.000]
2. Log Num. Atlas Missions t, Control Dummy Atlas Mission t	0.000	[0.000]	0.000*	[0.000]
Panel B: Denomination-Specific Effects				
3. Dummy Mainline Protestant Atlas Mission t	0.006***	[0.002]	0.001***	[0.000]
4. Dummy Non-Mainline Protestant Atlas Mission t	0.001*	[0.001]	0.000**	[0.000]
Cell FE, Year FE, Country-year FE	Y	Y	Y	Y

Notes: Col. (1): For 103,866 cells c in 15 countries with railroads at one point in 1885-1990 and the years 1885, 1890, 1895 and 1900 (N = 415,464), we regress the dependent variable shown at left on a dummy if cell c is within 30 km of a railroad in t (cell FE, year FE, and country-year FE included). We control for whether there is a mission in cell c in year t. Col. (2): For 70,546 cells c in 20 countries with cash crop export data and the years 1850, 1860, 1870, 1875, 1880, 1890 and 1900 (N = 493,822), we regress the dependent variable shown at left on log predicted cash crop export value in cell c in t (cell FE, year FE, and country-year FE included). See text for details on each regression. Robust SE's clustered at the district (2000) level: * p<0.10, **p<0.05, *** p<0.01. See Web Appx. for data sources.

Table A10: LONG-TERM ECONOMIC EFFECTS WITH SPATIAL FIXED EFFECTS

	Dependent Variable: Log Night Light Intensity in the Cell in 2010:											
Spatial FE:	None		Province (2000)		Ethnic Group		Cntry-Ethnic		District (2000)		None	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
***Panel A:* Africa**	Beach	Roome	Beach	Roome	Beach	Roome	Beach	Roome	Beach	Roome	Beach	Roome
Atlas Mission	0.40***	0.37***	0.33***	0.35***	0.31***	0.34***	0.30***	0.34***	0.26***	0.31***		
	[0.04]	[0.03]	[0.03]	[0.03]	[0.03]	[0.03]	[0.03]	[0.03]	[0.03]	[0.02]		
Controls	Std		Std		Std		Std		Std			
***Panel B:* Ghana**	1900	1924	1900	1924	1900	1924	1900	1924	1900	1924	1900	1924
Census Mission	0.78***	0.73***	0.74***	0.68***	0.58***	0.60***	0.58***	0.60***	0.51***	0.50***	0.01	0.17***
	[0.09]	[0.07]	[0.07]	[0.08]	[0.11]	[0.09]	[0.11]	[0.09]	[0.06]	[0.07]	[0.03]	[0.05]
Controls	Std		Std		Std		Std		Std		Ours	

Notes: ***Panel A:*** 203,574 cells for 43 sub-Saharan African countries. (3)-(4): Province FE (N = 531). (5)-(6): Ethnic Group FE (N = 780). (7)-(8): Country-Ethnic Group FE (N = 1,158). (9)-(10): District FE (N = 3,284). ***Panel B:*** 2,091 cells for Ghana. (3)-(4): Province FE (N = 10). (5)-(6): Ethnic Group FE (N = 34). (7)-(8): Country-Ethnic Group FE (N = 34). (9)-(10): District FE (N = 109). Panel A: Robust SE's clustered at the district (2000) level. Panel B: 100 Km Conley SE's. * p<0.10, ** p<0.05, *** p<0.01.

Table A11: LONG-TERM ECONOMIC EFFECTS OF MISSIONS, SPILLOVERS, GHANA

	Dependent Variable: Log Night Light Intensity in the Cell in 2010:							
Controls Included:	None	Std	Ours	+Type	None	Std	Ours	+Type
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Col. (1)-(4): 1900 (Beach, 1903)				Col. (5)-(8): 1924 (Roome, 1925)			
Panel A: Distance-Based								
Census Mission in Year t	0.61***	0.41***	0.08	-0.05	0.63***	0.62***	0.15***	0.14**
	[0.08]	[0.14]	[0.08]	[0.05]	[0.07]	[0.07]	[0.05]	[0.06]
Log Dist. Census Mission t	-0.15***	-0.26***	-0.05	-0.05	-0.09***	-0.07***	-0.03	-0.03
	[0.04]	[0.09]	[0.04]	[0.04]	[0.03]	[0.02]	[0.02]	[0.02]
Panel B: Dummy-Based								
Census Mission t - 0-10 Km	1.14***	1.02***	0.11	-0.00	0.90***	0.87***	0.27***	0.25***
	[0.13]	[0.12]	[0.13]	[0.09]	[0.11]	[0.09]	[0.06]	[0.06]
Census Mission t - 10-20 Km	0.51***	0.43***	-0.02	-0.01	0.25***	0.23***	0.09**	0.08*
	[0.12]	[0.10]	[0.05]	[0.06]	[0.07]	[0.05]	[0.04]	[0.04]
Census Mission t - 20-30 Km	0.28***	0.22**	-0.01	-0.01	0.07***	0.05	0.04	0.04
	[0.10]	[0.11]	[0.02]	[0.02]	[0.03]	[0.06]	[0.03]	[0.04]

Notes: Main sample of 2,091 cells for Ghana. "Standard": Controls identified as regularly used in the literature (see text for details). "Ours": All Ghana controls of Table 1. "Type": All Ghana controls of Table 7 except *Log Num.Mis.Year t*. Col. (4) and (8): Identity of the missionary missing for 2,091 - 2,069 = 22 obs. 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A12: MISSIONS AND EDUCATIONAL ATTAINMENT TODAY, SSA & GHANA

Sub-Saharan Africa	Dependent Variable: Respondent's Number of Years of Education							
Variable of Interest:	**Panel A:** Log Num. Atlas Missions Per 1,000 Km Among Respondent's Ethnic Group				**Panel B:** Log Num. Atlas Missions Per 1,000 Km Within 25 Km From Locality			
Test:	(1) Std	(2) Std	(3) Ours	(4) +Type	(1) Std	(2) Std	(3) Ours	(4) +Type
Effect Var. of Interest	0.10**	0.13***	0.04	0.04	0.14***	0.13***	0.03**	0.03*
	[0.05]	[0.02]	[0.03]	[0.04]	[0.03]	[0.01]	[0.02]	[0.02]
Ethnicity Controls	Std	Std	Africa	+Type	No	No	No	No
Locality Controls	No	No	No	No	Std	Std	Africa	+Type
Respondent Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	20,914	38,087	38,087	38,087	20,914	38,087	38,087	38,087
Groups/Clusters	185/2693	286/5776	286/5776	286/5776	185/2693	286/5776	286/5776	286/5776
Ghana Only	Dependent Variable: Respondent's Number of Years of Education							
Variable of Interest:	**Panel C:** Log Num. Atlas Missions Per 1000 Km Within 25 Km From Locality				**Panel D:** Log Num. Census Missions Per 1000 Km Within 25 Km From Locality			
Test:	(1) Std	(2) Std	(3) Ours	(4) +Type	(1) Std	(2) Std	(3) Ours	(4) +Type
Effect Var. of Interest	0.20*	-0.10	-0.10	-0.08	0.37	-0.19	0.00	-0.02
	[0.11]	[0.07]	[0.08]	[0.08]	[0.26]	[0.15]	[0.14]	[0.16]
Locality Controls	Std	Africa	Ours	+Type	Std	Africa	Ours	+Type
Respondent Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396
Clusters	291	291	291	291	291	291	291	291

Notes: Col. (1) of Panel A and B show the results from Col. (1) and Col. (2) in Table 1 in Nunn (2014), respectively. Nunn uses the 3rd round of the Afrobarometer surveys (March 2005-March 2006). We replicate his results in Col. (2) using the 5th round of the Afrobarometer (Oct. 2011 – April 2013) because it has almost twice more obs. and more countries (26 vs. 17). The respondent, ethnicity and locality controls are the same as the ones used by Nunn. "Ours": All controls of Table 6 for Africa and Table 1 for Ghana. "Type": All controls of Table 7 for Ghana. For Africa, we control for the respective log num. of Beach stations per 1,000 km in 1850, in 1881, and in 1900. In Panels B-D, locality controls and mission type controls are defined within 25 km from the locality. Robust SE's clustered at the ethnic group level in Panels A-B. 100 Km Conley SE's in Panels C-D. See Web Appx. for data sources.

Table A13: LONG-TERM EFFECT OF CENSUS MISSIONS IN RAIL/CROP AREAS, GHANA

	Dependent Variable: Log Night Light Intensity in the Cell in 2010:									
Controls Included:	None	Std	Africa	Ours	+Type	None	Std	Africa	Ours	+Type
Effect of ... Mission Dummy:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ghana (N = 2,091)	Col. (1)-(5): 1900 (Beach, 1903)					Col. (6)-(10): 1924 (Roome, 1925)				
Census Mission (CMD)	1.21***	0.98***	0.44***	0.28***	0.18***	1.02***	0.84***	0.35***	0.29***	0.28***
	[0.38]	[0.31]	[0.12]	[0.06]	[0.06]	[0.25]	[0.12]	[0.04]	[0.09]	[0.08]
CMD x Rail 0-30 Km (1932)	-0.09	-0.10	0.17**	-0.00	0.07	0.15	0.14	0.30***	0.09	0.11
	[0.22]	[0.16]	[0.07]	[0.11]	[0.04]	[0.23]	[0.20]	[0.09]	[0.14]	[0.14]
CMD x Cash Crop (Pre-1932)	-0.46	-0.33	-0.21	-0.18	-0.26***	-0.49**	-0.33***	-0.10	-0.16	-0.17**
	[0.35]	[0.31]	[0.19]	[0.18]	[0.08]	[0.23]	[0.13]	[0.08]	[0.10]	[0.08]

Notes: Ghana sample: 2,091 cells. Rail 0-30 Km (1932): Cells within 30 km from a railroad (1932). Cash Crop (Pre-1932): Cells likely to produce cash crops before 1932 (see text for details). "Standard": Controls identified as regularly used in the literature (see text for details). "Africa": All Africa controls of Table 6. "Ours": All Ghana controls of Table 1. "Type": All Ghana controls of Table 7 except *Log Num.Mis.Year t*. 100 Km Conley SE's for Ghana: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A14: LONG-TERM EFFECTS OF MISSIONS, OTHER OUTCOMES, GHANA

	Effect of the Census Mission Dummy Defined in ...					
	Col. (1)-(3): 1900 (Beach, 1903)			Col. (4)-(6): 1924 (Roome, 1925)		
Controls Included:	Std	Ours	+Type	Std	Ours	+Type
Dependent Variable ca. 2000:	(1)	(2)	(3)	(4)	(5)	(6)
1. Log Urban Pop.	4.18***	0.64*	0.47***	3.24***	0.55	0.39
	[0.20]	[0.38]	[0.06]	[0.46]	[0.37]	[0.30]
Obs. (Census)	2,091	2,091	2,069	2,091	2,091	2,069
2. Log Urban Share	25.13***	2.91	2.07	18.63***	2.68	1.82
	[1.50]	[2.32]	[2.54]	[3.04]	[2.70]	[2.41]
Obs. (Census)	2,091	2,091	2,069	2,091	2,091	2,069
3. Log Total Pop.	1.40***	-0.20	-0.28	1.70***	-0.03	-0.05
	[0.29]	[0.14]	[0.23]	[0.24]	[0.16]	[0.16]
Obs. (Census)	2,091	2,091	2,069	2,091	2,091	2,069
4. Empl. Sh. Indu. & Serv.	21.74***	3.43	2.52	18.28***	3.84***	3.21***
	[2.89]	[2.91]	[2.21]	[1.79]	[1.12]	[1.05]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
5. Empl. Sh. Manuf. & FIRE	6.07***	0.95	1.00**	5.18***	0.85*	0.77*
	[1.00]	[0.80]	[0.49]	[0.70]	[0.47]	[0.44]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
6. Empl. Sh. Skilled. Occup.	4.90***	1.31*	0.89	3.88***	1.02***	0.97***
	[0.58]	[0.68]	[0.69]	[0.50]	[0.26]	[0.31]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
7. Pop. Sh. Prot. & Catho.	6.79*	5.54***	5.51***	6.38***	6.81***	7.01***
	[3.79]	[1.83]	[1.96]	[2.30]	[2.06]	[2.27]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
8. Mean Yrs Educ. ($\geq$ 18 y.o.)	1.57***	0.55**	0.50**	1.46***	0.52***	0.49***
	[0.27]	[0.21]	[0.20]	[0.21]	[0.14]	[0.14]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
9. Prim. Compl. Rate ($\geq$ 18 y.o.)	14.58***	5.22***	4.74**	13.85***	4.98***	4.68***
	[2.56]	[1.97]	[1.92]	[2.07]	[1.33]	[1.37]
Obs. (Census)	1,895	1,895	1,873	1,895	1,895	1,873
10. Height-for-Age Z ($\leq$ 5 y.o.)	0.10**	0.00	0.08	0.16**	0.11	0.12
	[0.04]	[0.11]	[0.10]	[0.07]	[0.08]	[0.08]
Obs. (DHS)	728	728	713	728	728	713
11. Weight-for-Age Z ($\leq$ 5 y.o.)	0.08*	0.00	0.05	0.10*	0.05	0.05
	[0.04]	[0.07]	[0.08]	[0.06]	[0.05]	[0.04]
Obs. (DHS)	729	729	714	729	729	714
12. Completed Fertility 35-49	-0.48***	-0.12	-0.14	-0.40***	-0.18***	-0.16**
	[0.10]	[0.10]	[0.09]	[0.07]	[0.07]	[0.07]
Obs. (Census)	1,893	1,893	1,871	1,893	1,893	1,871
13. Completed Net Fert. 35-49	-0.48***	-0.11	-0.10	-0.41***	-0.17***	-0.15***
	[0.08]	[0.08]	[0.07]	[0.05]	[0.04]	[0.05]
Obs. (Census)	1,893	1,893	1,871	1,893	1,893	1,871
14. Completed Mortality 35-49	-0.00	-0.01	-0.03	0.00	-0.02	-0.01
	[0.06]	[0.03]	[0.03]	[0.06]	[0.03]	[0.04]
Obs. (Census)	1,893	1,893	1,871	1,893	1,893	1,871

Notes: Main sample of 2,091 cells for Ghana. "Standard": Controls identified as regularly used in the literature (see text for details). "Ours": All Ghana controls of Table 1. "Type": All Ghana controls of Table 7 except *Log Num.Mis.Year t*. Col. (3) and (6): Identity of the missionary missing for 22 obs. 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A15: LONG-TERM EFFECTS OF MISSION TYPE, GHANA, OTHER OUTCOMES

Dep. Var. ca. 2000:	Num. Yrs. of Educ. (≥ 18 y.o.)		Prim. Educ. Compl. Rate (≥ 18 y.o.)		Height-for-Age Z-Score (≤ 5 y.o.)		Weight-for-Age Z-Score (≤ 5 y.o.)		Net Compl. Fert. Rate (35-49 y.o.)	
Vars Defined in:	1900	1924	1900	1924	1900	1924	1900	1924	1900	1924
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel B: Our Controls Included										
Census Mission t	0.27	0.58***	2.58	5.46***	0.09	0.25	-0.08	0.17*	-0.16	-0.18***
	[0.32]	[0.21]	[3.00]	[1.95]	[0.14]	[0.16]	[0.10]	[0.09]	[0.10]	[0.06]
Created 1751-1850	-0.37	-0.12	-3.58*	-1.16	-0.11	-0.01	-0.16	0.04	0.29***	0.21***
	[0.25]	[0.16]	[2.23]	[1.73]	[0.24]	[0.21]	[0.13]	[0.07]	[0.11]	[0.08]
Created 1851-1875	-0.08	0.13	-0.67	1.30	-0.25	-0.20	-0.12	0.00	0.10	0.03
	[0.21]	[0.10]	[1.94]	[1.16]	[0.23]	[0.18]	[0.12]	[0.07]	[0.11]	[0.05]
Log Num. Mis. t	0.30	-0.09	2.83	-0.80	-0.00	-0.14*	0.17***	-0.12*	0.07***	0.04
	[0.36]	[0.13]	[3.19]	[1.17]	[0.13]	[0.08]	[0.03]	[0.07]	[0.01]	[0.07]
Main Station t	0.25	0.31	1.97	2.62	0.01	0.05	0.32***	0.16*	-0.27***	-0.12
	[0.31]	[0.21]	[2.84]	[1.85]	[0.09]	[0.11]	[0.04]	[0.08]	[0.10]	[0.08]
School t	-0.30*	0.14	-2.44*	1.42	-0.00	0.06	-0.21***	0.09	0.02	-0.17*
	[0.15]	[0.12]	[1.33]	[1.02]	[0.15]	[0.05]	[0.07]	[0.07]	[0.03]	[0.10]
Euro Resid 1846-90	0.15	0.23	1.23	2.07	0.02	0.01	-0.03	-0.06	-0.02	0.01
	[0.26]	[0.15]	[2.45]	[1.44]	[0.15]	[0.15]	[0.09]	[0.09]	[0.07]	[0.04]
Euro Visit 1846-90	0.07	0.14	0.46	1.14	-0.05	-0.03	-0.11	-0.11	-0.04	-0.06
	[0.30]	[0.21]	[2.90]	[2.06]	[0.14]	[0.15]	[0.08]	[0.08]	[0.07]	[0.07]
Observations	1,873	1,873	1,873	1,873	713	713	714	714	1,871	1,871

Notes: Main sample of 2,091 of cells in Ghana. 1,873 obs. = we use data from the *Population Census* for the year 2000. 713-714 obs. = we use data from the *Demographic and Health Surveys* for the years 1993-2017. **Panel A:** *Our controls*: All controls of Table 1. "Euro Resid 1846-1890": Mission stations where European missionaries permanently resided at one point in 1846-1890 (data not available for other years). "Euro Visit 1846-1890": Mission stations where European missionaries did not permanently reside but frequently visited at one point in 1846-1890. Robust 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

Table A16: DENOMINATION EFFECTS AND EXISTING VS. ABANDONED MISSIONS

	Dependent Variable: Log Night Light Intensity in the Cell in 2010:									
Controls Included:	None	Std	Africa	Ours	+Type	None	Std	Africa	Ours	+Type
Effect of ... Mission Dummy:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Col. (1)-(5): 1900 (Beach, 1903)					Col. (6)-(10): 1924 (Roome, 1925)				
Panel A: **(N = 2091)**	**Denomination-Specific Effects**									
Protestant Census Mission	1.02***	0.75***	0.42***	0.12	0.01	0.72***	0.59***	0.29***	0.08	0.05
	[0.12]	[0.08]	[0.09]	[0.08]	[0.03]	[0.14]	[0.08]	[0.07]	[0.05]	[0.05]
Catholic Census Mission	0.61*	0.55	-0.19	0.05	0.04	0.45***	0.43***	0.29***	0.15*	0.17**
	[0.36]	[0.35]	[0.15]	[0.14]	[0.24]	[0.13]	[0.10]	[0.08]	[0.08]	[0.08]
Panel B: **(N = 196-420)**	**Restricting the Sample to Cells with Existing or Abandoned Cells**									
Census Mission Dummy	0.23***	0.08	0.08***	-0.00	-0.08**	0.34**	0.39***	0.00	0.05	0.07
	[0.03]	[0.07]	[0.03]	[0.09]	[0.04]	[0.14]	[0.10]	[0.05]	[0.09]	[0.12]

Notes: Main sample of 2,091 cells in Ghana. **Panel B**: We restrict the sample to 196 (col. (1)-(5)) or 420 (col. (6)-(10)) cells with an existing mission or an abandoned mission in year t. "Standard": Controls identified as regularly used in the literature (see text for details). "Africa": All Africa controls of Table 6. "Ours": All Ghana controls of Table 1. "Type": All Ghana controls of Table 7 except *Log Num.Mis.Year t*. 100 Km Conley SE's: * p<0.10, ** p<0.05, *** p<0.01. See Web Appendix for data sources.

REFERENCES

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson, "Institutions, Human Capital, and Development," *Annual Review of Economics*, 2014, *6* (1), 875–912.

Agbeti, J. Kofi, *West African Church History*, Leiden: E.J. Brill, 1986.

Agency, National Geospatial-Intelligence, "NGA GEOnet Names Server (GNS)," 2016.

Ajayi, Jacob Festus Ade and Michael Crowder, *History of West Africa*, London: Longman, 1974.

Alesina, Alberto, Sebastian Hohmann, Stelios Michalopoulos, and Elias Papaioannou, "Intergenerational Mobility in Africa," *Econometrica*, 2021, *89*, 1–35.

Alexopoulou, Kleoniki, "Local conditions and metropolitan visions. Fiscal policies and practices in Portuguese Africa, 1850s-1970s," in Ewout Frankema and Anne Booth, eds., *Fiscal states in colonial Asia and Africa*, Cambridge: Cambridge University Press, 2019.

Alpino, Matteo and Eivind M. Hammersmark, "The Role of Historical Christian Missions in the Location of World Bank Aid in Africa," *The World Bank Economic Review*, 2021, *35* (1), 207–233.

Alsan, Marcella, "The Effect of the TseTse Fly on African Development," *American Economic Review*, 2015, *105* (1), 382–410.

Altena, Thorsten, *"Ein Häuflein Christen mitten in der Heidenwelt des dunklen Erdteils": zum Selbst- und Fremdverständnis protestantischer Missionare im kolonialen Afrika 1884-1918* Internationale Hochschulschriften, Münster: Waxmann, 2003.

Ananyev, Maxim and Michael Poyker, "Christian missions and anti-gay attitudes in Africa," *Journal of Economic Behavior & Organization*, 2021, *184*, 359–374.

Anderson, Gerald H., *Biographical dictionary of Christian missions*, Grand Rapids, Michigan: W.B. Eerdmans Pub., 1999.

Anderson, Siwan, "Legal Origins and Female HIV," *American Economic Review*, 2018, *108* (6), 1407–1439.

Bai, Ying and James Kai sing Kung, "Diffusing knowledge while spreading God's message: Protestantism and economic prosperity in China, 1840-1920," *Journal of the European Economic Association*, 2015, *13* (4), 669–698.

Barro, Robert J. and Rachel M. McCleary, "Protestants and Catholics and educational investment in Guatemala," AEI Economics Working Papers 928714, American Enterprise Institute May 2017.

Bartels, Francis L., *The Roots of Ghana Methodism*, Cambridge: Cambridge University Press, 1965.

Basel Mission, "Basel Mission Archives in Basel (Switzerland)," 2016.

Basutoland, *Blue Book*, Maseru: Government Printer, various years.

Baten, Joerg, Michiel de Haas, Elisabeth Kempter, and Felix Meier zu Selhausen, "Educational Gender Inequality in Sub-Saharan Africa: A Long-term Perspective," *Population and Development Review*, forthcoming.

__ , __ , __ , and __ , "Educational Gender Inequality in Sub-Saharan Africa: A Long-term Perspective," *Population and Development Review*, forthcoming.

Bathurst, *Blue Book*, Bathurst: Government Printer, various years.

Beach, Harlan P., *A Geography and Atlas of Protestant Missions: their environment, forces, distribution, methods, problems, results and prospects at the opening of the twentieth century*, Vol. 2, New York: Student Volunteer Movement for Foreign Missions, 1903.

__ and Charles H. Fahs, *World Missionary Atlas*, New York: Institute of Social and Religious Research, 1925.

Belge, Gouvernement, *Rapport Ruanda-Urundi 1924*, Geneva: League of Nations, 1925.

Bergeron, Augustin, "Religion and the Scope of Morality: Evidence from Exposure to Missions in the DRC," *Unpublished manuscript Harvard University*, 2020.

Boateng, Godfred O., Dozie Okoye, Jonathan Amoyaw, and Isaac Luginaah, "Six decades after independence: the enduring influence of missionary activities on regional wealth inequalities in Ghana," *Journal of Economic Geography*, 2019.

Bonfils, Jean, *La Mission Catholique en Republique Benin*, Paris: Karthala, 1999.

Cagé, Julia and Valeria Rueda, "The Long-Term Effects of the Printing Press in Sub-Saharan Africa," *American Economic Journal: Applied Economics*, 2016, *8* (3), 69–99.

__ and __ , "Sex and the mission: The conflicting effects of early Christian missions on HIV in sub-Saharan Africa," *Journal of Demographic Economics*, 2020, *86* (3), 213–257.

Caicedo, Felipe Valencia, "The Mission: Human Capital Transmission, Economic Persistence and Culture in South America," *The Quarterly Journal of Economics*, 2019, *134* (1), 507–556.

Calvi, Rossella and Federico G. Mantovanelli, "Long-Term Effects of Access to Health Care: Medical Missions in Colonial India," *Journal of Development Economics*, 2018.

__ , __ , and Lauren Hoehn Velasco, "The Protestant Legacy: Missions and Human Capital in India," *Journal of Human Resources*, 2021.

Cape of Good Hope, *Blue Book*, Cape Town: Government Printer, various years.

Castelló-Climent, Amparo, Latika Chaudhary, and Abhiroop Mukhopadhyay, "Higher Education and Prosperity: From Catholic Missionaries to Luminosity in India," *The Economic Journal*, 2018, *128* (616), 3039–3075.

Chandler, Tertius, *Four Thousand Years of Urban Growth: An Historical Census*, Lewiston, NY: St. David's University Press, 1987.

Chen, Yuyu, Hui Wang, and Se Yan, "The Long-Term Effects of Protestant Activities in China," *CEH Discussion Papers*, 2014.

Cogneau, Denis and Alexander Moradi, "Borders That Divide: Education and Religion in Ghana and Togo Since Colonial Times," *The Journal of Economic History*, 2014, *74* (3), 694–729.

Dahlum, Sirianne and Tore Wig, "Educating Demonstrators: Education and Mass Protest in Africa," *Journal of Conflict Resolution*, 2019, *63* (1), 3–30.

Debrunner, Hans W., *A History of Christianity in Ghana*, Accra: Waterville Publishing House, 1967.

Depetris-Chauvin, Emilio and David N. Weil, "Malaria and Early African Development: Evidence from the Sickle Cell Trait," *The Economic Journal*, 2018.

Der, Benedict, "Church-State Relations in Northern Ghana, 1906-1940," *Transactions of the Historical Society of Ghana*, 1974, *15* (1), 41–61.

des Auswärtigen Amtes, Kolonialabteilung, *Deutsches Kolonialblatt. Amtsblatt für die Schutzgebiete des Deutschen Reichs*, Berlin: Ernst Siegfried Mittler & Sohn, various years.

Dickson, Kwamina B., *A historical geography of Ghana*, London: Cambridge University Press, 1969.

Dimico, Arcangelo, "Poverty trap and educational shock: evidence from missionary fields," *QUCEH Working Paper 7*, 2014.

Dunn, Elwood, *A History of the Episcopal Church in Liberia 1821-1980*, London: The Scarecrow Press, 1992.

Dwight, Henry Otis, *The Blue Book of Missions for 1905*, New York: Funk & Wagnalls, 1905.

__ , H. Allen Tupper, and Edwin Munsell Bliss, *The encyclopedia of missions : descriptive, historical, biographical, statistical*, 2nd ed., New York: Funk & Wagnalls, 1904.

FAO, "Soil Fertility Index for Africa (GeoLayer)," 2015.

Feir, Donna, Maggie E. C. Jones, and David Scoones, "The legacy of Indian missions in the United States," *Unpublished manuscript Victoria University*, 2019.

Fenske, James, "African polygamy: Past and present," *Journal of Development Economics*, 2015, *117*, 58–73.

Fitzner, Rudolf, *Deutsches Kolonial-Handbuch*, Berlin: Hermann Paetel, 1901.

Fourie, Johan and Christie Swanepoel, "When selection trumps persistence. The lasting effect of missionary education in South Africa," *The Low Countries Journal of Social and Economic History*, 2015, *117* (12), 1–30.

Francais, Gouvernement, *Rapport Annuel du Cameroun 1924*, Geneva: League of Nations, 1925.

Frankema, Ewout, Jeffrey G. Williamson, and Peter Woltjer, "An Economic Rationale for the West African Scramble? The Commercial Transition and the Commodity Price Boom of 1835-1885," *The Journal of Economic History*, 2018, *78* (2), 231–267.

Froise, Marjorie, "150 Years of Mission-Churches in Swaziland, 1844-1994," 1996.

Funjika, Patricia and Yoseph Yilma Getachew, "Colonial origin, ethnicity, and intergenerational mobility in Africa," *WIDER Working Paper No. 64*, 2019.

Gallego, Francisco A. and Robert D. Woodberry, "Christian Missionaries and Education in Former African Colonies: How Competition Mattered," *Journal of African Economies*, 2010, *19* (3), 294–329.

Gennaioli, Nicola and Ilia Rainer, "The modern impact of precolonial centralization in Africa," *Journal of Economic Growth*, 2007, *12* (3), 185–234.

Ghana Statistical Service, *Population & Housing Census 2000*, Accra: Government Printer, 2000.

Globcover, *Globcover Regional: Africa* 2009.

Gold Coast, *Report of the Educationists' committee 1919/20*, Accra: Government Press, 1920.

__ , *Blue Book*, Accra: Government Printer, various years.

__ , *Report on the Education Department*, London: Waterlow and Sons Limited, various years.

Goldewijk, Kees Klein, Arthur Beusen, and Peter Janssen, "Long-term dynamic modeling of global population and built-up area in a spatially explicit way: HYDE 3.1," *The Holocene*, 2010, *20* (4), 565–573.

Gollin, Douglas, Remi Jedwab, and Dietrich Vollrath, "Urbanization with and without industrialization," *Journal of Economic Growth*, 2016, *21* (1), 35–70.

Groves, Charles P., *The planting of Christianity in Africa 1840-1878*, Vol. 2 of *Lutterworth library*, London: Lutterworth Press, 1955.

Guggisberg, Frederick Gordon, *Index to the 1:125,000 Map of the Gold Coast Colony and Ashanti*, London: W. & A.K. Johnston Limited, 1908.

Gunnarsson, Christer, *The Gold Coast Cocoa Industry 1900-1939: Production, Prices and Structural Change*, Lund: Economic History Association, 1978.

Gyasi, E.A., "Emergence of a New Oil Palm Belt in Ghana," *Tijdschrift voor economische en sociale geografie*, 1992, *83* (1), 39–49.

Hastings, Adrian, *The Church in Africa, 1450-1950*, Oxford: Clarendon Press, 1994.

Hay, John Charles Dalrymple, *Ashanti and the Gold Coast: and what we know of it. A sketch*, London: Stanford, 1874.

Henderson, Morgan and Warren Whatley, "Pacification and Gender in Colonial Africa: Evidence from the Ethnographic Atlas," *MPRA Paper 61203*, 2014.

Henn, Soeren, Horacio Larreguy, and Carlos Schmidt-Padilla, "Missionary Competition, Education, and Long-Run Political Development: Evidence from Africa," *Unpublished manuscript Harvard University*, 2019.

HYDE, *History Database of the Global Environment* 2010.

Institut Géographique du Congo Belge, "Carte des missions Catholiques: Ruanda-Urundi," 1949.

Isichei, Elizabeth Allo, *A History of Christianity in Africa: From Antiquity to the Present*, London: SPCK, 1995.

Jedwab, Remi and Alexander Moradi, "The Permanent Effects of Transportation Revolutions in Poor Countries: Evidence from Africa," *Review of Economics and Statistics*, 2016, *98* (2), 268–284.

Jewsiewicki, Bogumil, "The Great Depression and the Making of the Colonial Economic System in the Belgian Congo," *African Economic History*, 1977, *4*, 153–176.

Johnston, Harry H., "The Political Geography of Africa before and after the War," *The Geographical Journal*, 1915, *45* (4), 273–294.

Jones, Hilary, "Fugitive slaves and Christian evangelism in French West Africa: a protestant mission in late nineteenth-century Senegal," *Slavery & Abolition*, 2017, *38* (1), 76–94.

Jones, Lauren Eden, "Killing the Indian, Saving the Man: The Long-run Cultural, Health, and Social Effects of Canada's Indian Residential Schools," *Working Paper*, 2014.

Kenya, *Blue Book*, Nairobi: Government Printer, various years.

Kudo, Yuya, "Missionary Influence on Marriage Practices: Evidence from the Livingstonia Mission in Malawi," *Journal of African Economies*, 2017, *26* (3), 372–431.

Lankina, Tomila and Lullit Getachew, "Mission or Empire, Word or Sword? The Human Capital Legacy in Postcolonial Democratic Development," *American Journal of Political Science*, 2012, *56* (2), 465–483.

League of Nations, *Rapport Annuel du Togo 1924*, Geneva: Gouvernement Francais, 1925.

Ma, Chicheng, "Knowledge Diffusion and Intellectual Change: When Chinese Literati Met European Jesuits," *Unpublished manuscript University of Hong Kong*, 2019.

Mamo, Nemera, Sambit Bhattacharyya, and Alexander Moradi, "Intensive and extensive margins of mining and development: Evidence from Sub-Saharan Africa," *Journal of Development Economics*, 2019, *139*, 28–49.

Mantovanelli, Federico G., "Christian Missions, HIV and Sexual Behavior in Sub-Saharan Africa," *Unpublished manuscript Boston College*, 2014.

Martin, James Henry and J. Bernard Sheldon, *Ministers and probationers of the Methodist Church, formerly Wesleyan, Primitive, and United Methodist, with their appointments in chronological and alphabetical order; also lists of the presidents, vice-presidents, and the secretaries of the several conferences, together with an alphabetical list of deceased ministers*, London: Methodist Pub. House, 1964.

Matsuura, Kenji and Cort J. Willmott, "Terrestrial Air Temperature and Precipitation: 1900-2007 Gridded Monthly Time Series, Version 4.01," 2015.

Menon, Nidhiya and Kathleen McQueeney, "Christianity and girl child health in India," *World Development*, 2020, *136*.

Michalopoulos, Stelios, Louis Putterman, and David N. Weil, "The Influence of Ancestral Lifeways on Individual Economic Outcomes in Sub-Saharan Africa," *Journal of the European Economic Association*, 2018, *17* (4), 1186–1231.

Miller, Jon, *Missionary zeal and institutional control: organizational contradictions in the Basel Mission on the Gold Coast, 1828-1917*, Grand Rapids, Michigan ; Cambridge, U.K.: William B. Eerdmans, 2003.

Montgomery, Max, "Colonial Legacy of Gender Inequality: Christian Missionaries in German East Africa," *Politics & Society*, 2017, *45* (2), 225–268.

Murdock, George Peter, "Ethnographic Atlas: A Summary," *Ethnology*, 1967, *6* (2), 109–236.

Nangula, Eino, "The role of the Evangelical Lutheran Church in Namibia (ELCIN) as a pioneer of social development through Education in Ovamboland (1870-1970): A Church Historical Study," 2013.

NGDC, *Global Radiance Calibrated Nighttime Lights* 2015.

Nigeria, *Blue Book*, Lagos: Government Printer, various years.

Nsi, Michel Assoumou, *L'Église catholique au Gabon: De l'enterprise missionaire à la mise en place d'une église locale 1844-1982*, Saint-Denis: Connaissances et Savoirs, 2017.

Nunn, Nathan, "The Long-term Effects of Africa's Slave Trades," *The Quarterly Journal of Economics*, 2008, *123* (1), 139–176.

__ , "Religious Conversion in Colonial Africa," *American Economic Review Papers and Proceedings*, 2010, *100* (2), 147–152.

__ , "Gender and Missionary Influence in Colonial Africa," in Emmanuel Akyeampong, Robert H. Bates, Nathan Nunn, and James Robinson, eds., *Africa's Development in Historical Perspective*, New York: Cambridge University Press, 2014, pp. 489–512.

__ and Leonard Wantchekon, "The Slave Trade and the Origins of Mistrust in Africa," *American Economic Review*, 2011, *101* (7), 3221–3252.

Nyasaland, *Blue Book*, Zomba: Government Printer, various years.

Obikili, Nonso, "The impact of the slave trade on literacy in West Africa: Evidence from the colonial era," *Journal of African Economies*, 2016, *25* (1), 1–27.

Odamtten, S. K., *The missionary factor in Ghana's development up to the 1880's*, 1st ed., Accra: Waterville Pub. House, 1978.

Okoye, Dozie, "Things Fall Apart? Missions, Institutions, and Interpersonal Trust," *Journal of Development Economics*,

2021, *148*.

__ and Roland Pongou, "Sea Changes: The Transatlantic Slave Trade and Missionary Activity in Africa," *Unpublished manuscript Dalhousie University and University of Ottawa*, 2017.

Osei, Samuel Kwesi, "Combining Geo-Historical Information with GIS Techniques: An Example of the Historical Slave Route Heritage in Ghana," in James Anquandah, Benjamin Kankpeyeng, and Wazi Apoh, eds., *Current Perspectives in the Archeology of Ghana*, Legon: University of Ghana Readers, 2014.

Owolabi, Olukunle P., "Literacy and Democracy despite Slavery: Forced Settlement and Postcolonial Outcomes in the Developing World," *Journal of Comparative Politics*, 2015, *48* (1), 43–78.

Reclus, Elisée and Augustus Henry Keane, *Fig. 131 Chief Routes of Explorers in Madagascar*, New York: D. Appleton and Company, 1890.

Reimer, Dietrich, "Arbeitsgebiet der Norddeutschen Mission in Süd-Togo und auf der Goldküste. Stand beim 75-jährigen Jubiläum 1911," 1911.

Reindorf, Carl Christian and J. G. Christaller, *History of the Gold Coast and Asante: based on traditions and historical facts comprising a period of more than three centuries from about 1500 to 1860*, Basel: The author, 1895.

Rhodesia, Northern, *Blue Book*, Lusaka: Government Printer, various years.

Ricart-Huguet, Joan, "The Origins of Colonial Investments in former British and French Africa," *Unpublished manuscript Princeton University*, 2019.

__ , "Who Governs? Colonial Education and Regional Political Inequality," *Unpublished manuscript Princeton University*, 2019.

Riis, Sroemberger, Locher, and Hornberger, *Die Goldkueste und westliche Sklavenkueste sowie das suedliche Asante Reich in Westafrika*, Basel Mission Archive BMA ATL-31.010.004: Evangelischen Missionsgesellschaft Basel, 1879.

Roome, William R. M., *Ethnographic Survey of Africa: Showing the Tribes and Languages; also the Stations of Missionary Societies*, London: Edward Stanford Ltd., 1925.

Schlatter, Wilhelm, *Geschichte der Basler Mission, 1815-1915*, Basel: Missionsbuchhandlung, 1916.

Schott, Otto, *The Basel Mission on the Gold-Coast, Western Africa on the 1st January 1879: A Retrospect on Fifty Years of Mission Work*, Basel: Felix Schneider, 1879.

Schreiber, D.A.W., *Bausteine zur Geschichte der Norddeutschen Missions-Gesellschaft*, Bremen: Verlag der Norddeutschen Missions-Gesellschaft, 1936.

Sierra Leone, *Blue Book*, Freetown: Government Printer, various years.

Sill, Ulrike, *Encounters in quest of Christian womanhood: the Basel Mission in pre- and early colonial Ghana* Studies in Christian mission, Boston: Brill, 2010.

Sluglett, Peter, *Atlas of Islamic History*, New York: Routledge, 2014.

Smith, Noel T., *The Presbyterian Church of Ghana, 1835-1960: a younger Church in a changing society*, Accra: Ghana Universities Press, 1966.

Société des Missions Africaines, "Biographie des confréres défunts - decas par ordre alphabétique," 2016.

Streit, Karl, *Atlas Hierarchicus: descriptio geographica et statistica Sanctae Romanae Ecclesiae tum occidentis tum orientis juxta statum praesentum accedunt nonnullae notae historicae necnon ethnographicae*, Paderborn: Typographiae Bonifacianae, 1913.

Tanganyika, *Blue Book*, Dar es Salam: Government Printer, various years.

Uganda, *Blue Book*, Entebbe: Government Printer, various years.

USAID, *Demographic and Health Surveys* 2020.

von Borzyskowski, Inken and Patrick Kuhn, "Dangerously informed: Voter information and pre-electoral violence in Africa," *Unpublished manuscript University of Durham*, 2020.

Waldinger, Maria, "The long-run effects of missionary orders in Mexico," *Journal of Development Economics*, 2017, *127*, 355–378.

Walters, Leone, Carolyn Chisadza, and Matthew Clance, "Human Capital Development and Ethnic Institutions," *Unpublished manuscript, University of Pretoria*, 2019.

Wantchekon, Leonard, Natalija Novta, and Marko Klašnja, "Education and Human Capital Externalities: Evidence from Colonial Benin," *The Quarterly Journal of Economics*, 2015, *130* (2), 703–757.

Wesleyan Methodist Church, *Minutes of Several Conversations at the ... Yearly Conference of the People Called Methodists*, London: Wesleyan Conference Office, various years.

Wietzke, Frank-Borge, "Historical Origins of Uneven Service Supply in Sub-Saharan Africa. The Role of Non-State Providers," *Journal of Development Studies*, 2014, *50* (12), 1614–1630.

__ , "Long-term consequences of colonial institutions and human capital investments: Sub-national evidence from Madagascar," *World Development*, 2015, *66*, 293–307.

Williamson, S.G., "Missions and Education in the Gold Coast," *International Review of Missions*, 1952, *41* (3), 364–373.

Wiltgen, Ralph M., *Gold Coast mission history, 1471-1880*, Techny, Ill.: Divine Word Publications, 1956.

Woodberry, Robert D., "The Missionary Roots of Liberal Democracy," *American Political Science Review*, 2012, *106* (2), 244–274.

Wuepper, David and Johannes Sauer, "Explaining the performance of contract farming in Ghana: The role of self-efficacy and social capital," *Food Policy*, 2016, *62* (2), 11–27.

__ and __ , "Moving forward in rural Ghana: Investing in social and human capital mitigates historical constraints," *Economic History of Developing Regions*, 2017, *32* (2), 177–209.