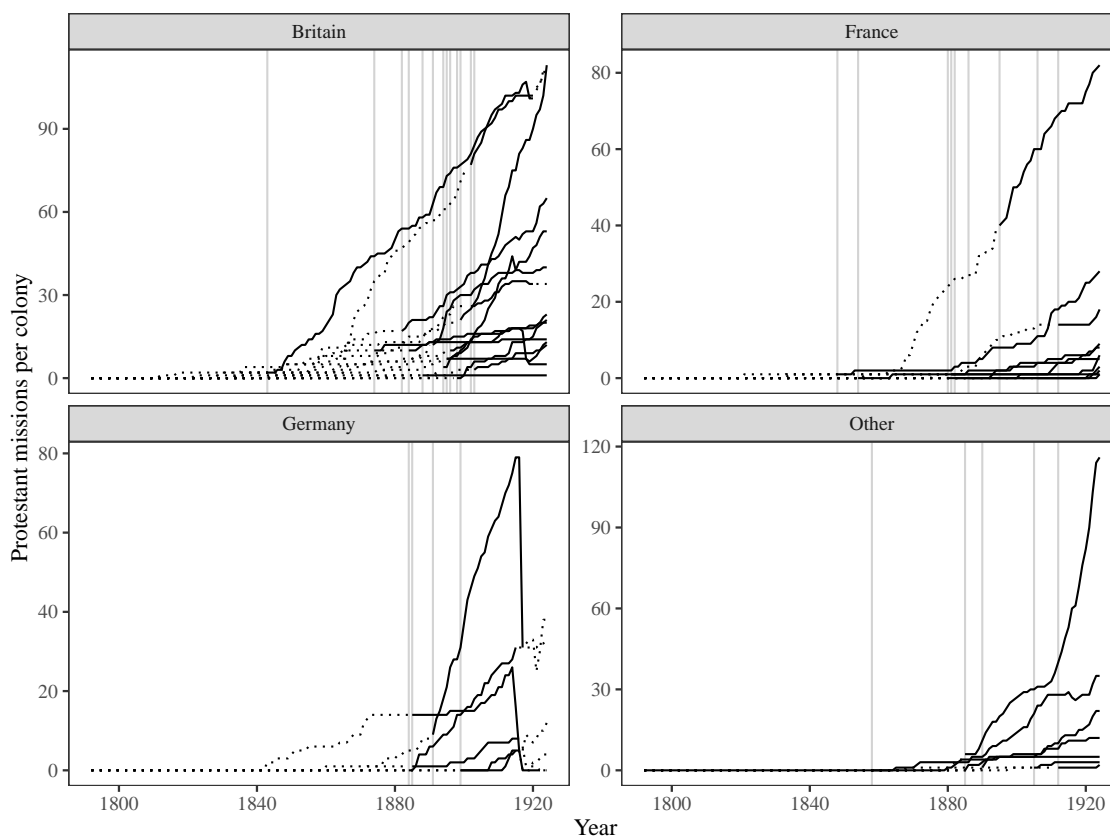


## ONLINE APPENDIX

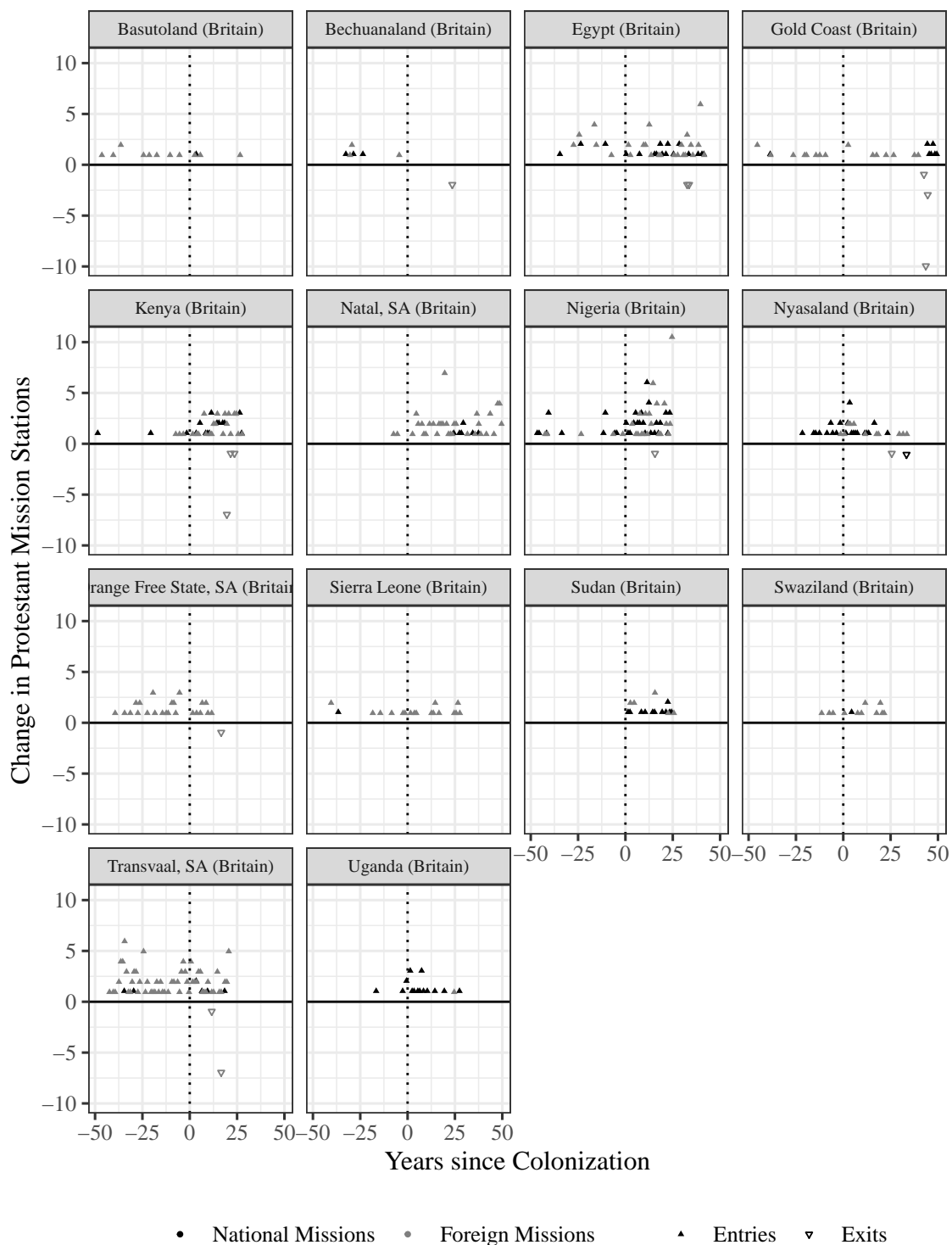
The Empire Within: Longitudinal Evidence on the Expansion of Christian  
Missions in Colonial Africa

## Additional figures



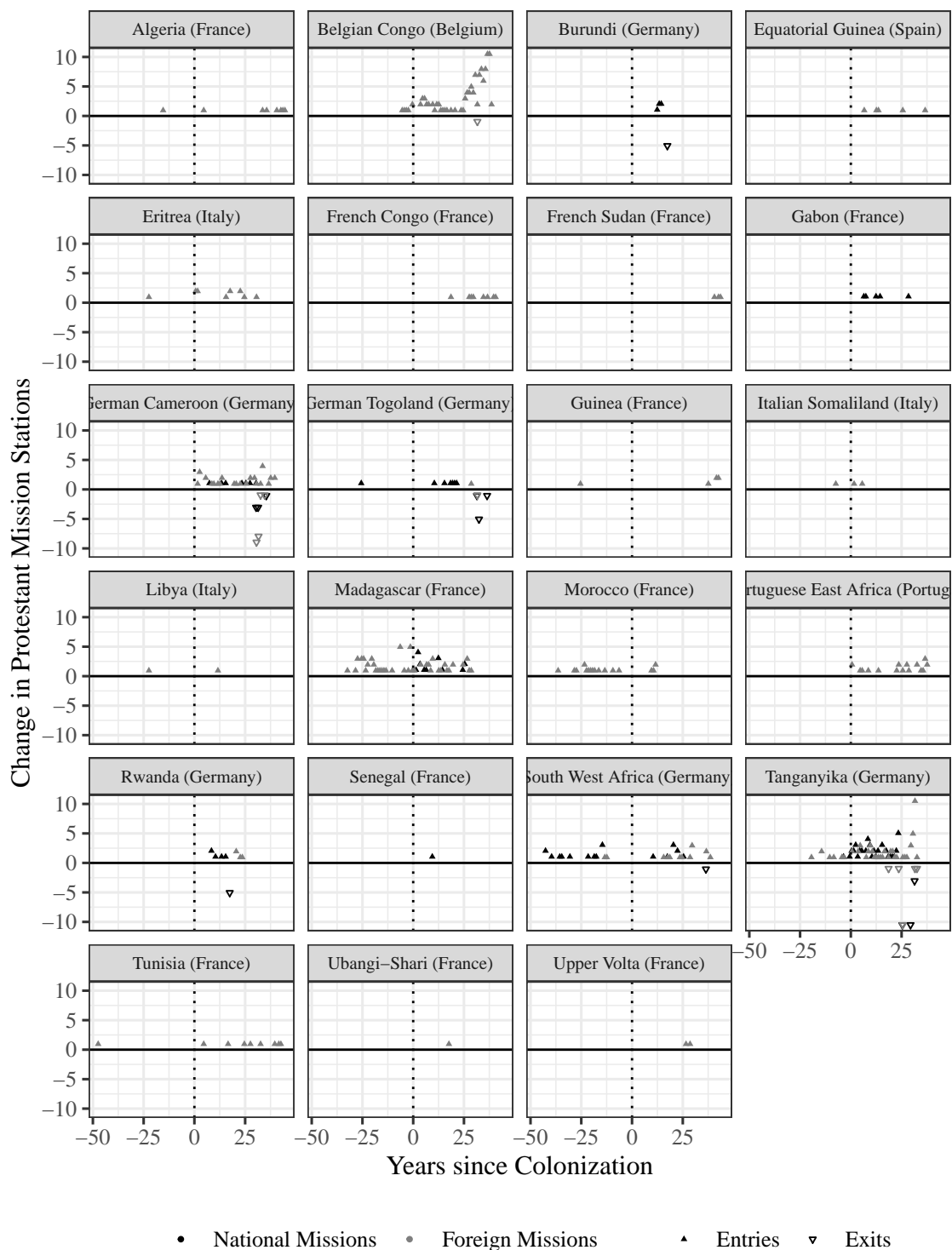
**Figure A1. Protestant Missions across European Empires (1800-1924).**

*Note:* Each line corresponds to one colony; solid during colonial period, and dashed before/after. Horizontal lines mark years of colonization. Bottom-right panel includes Belgian, Portuguese and Spanish colonies.

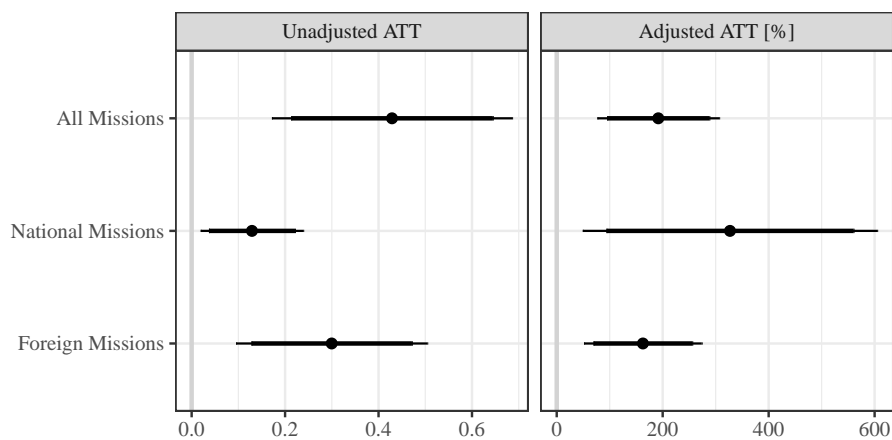


**Figure A2. Entries and Exits of Protestant Missions in British Colonies.**

*Note:* Year zero corresponds to the respective year of colonization. Zero values for entries and exits not shown. Display truncated for values larger than ten.

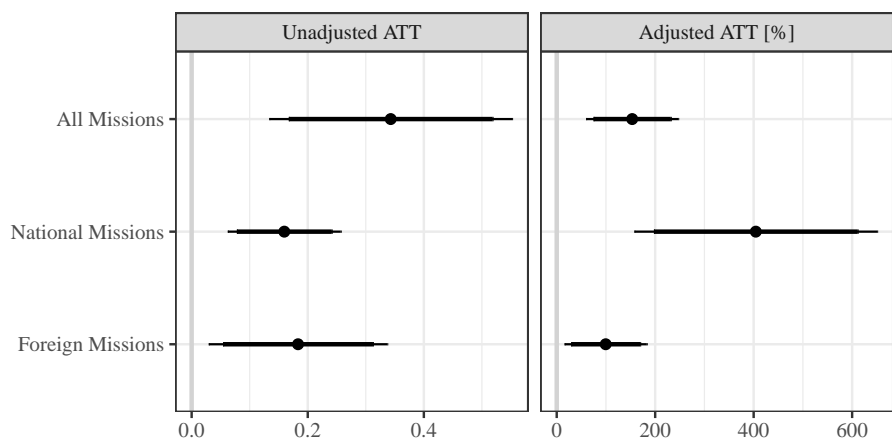


**Figure A3. Entries and Exits of Protestant Missions in Non-British Colonies.**  
 Note: Year zero corresponds to the respective year of colonization. Zero values for entries and exits not shown. Display truncated for values larger than ten.



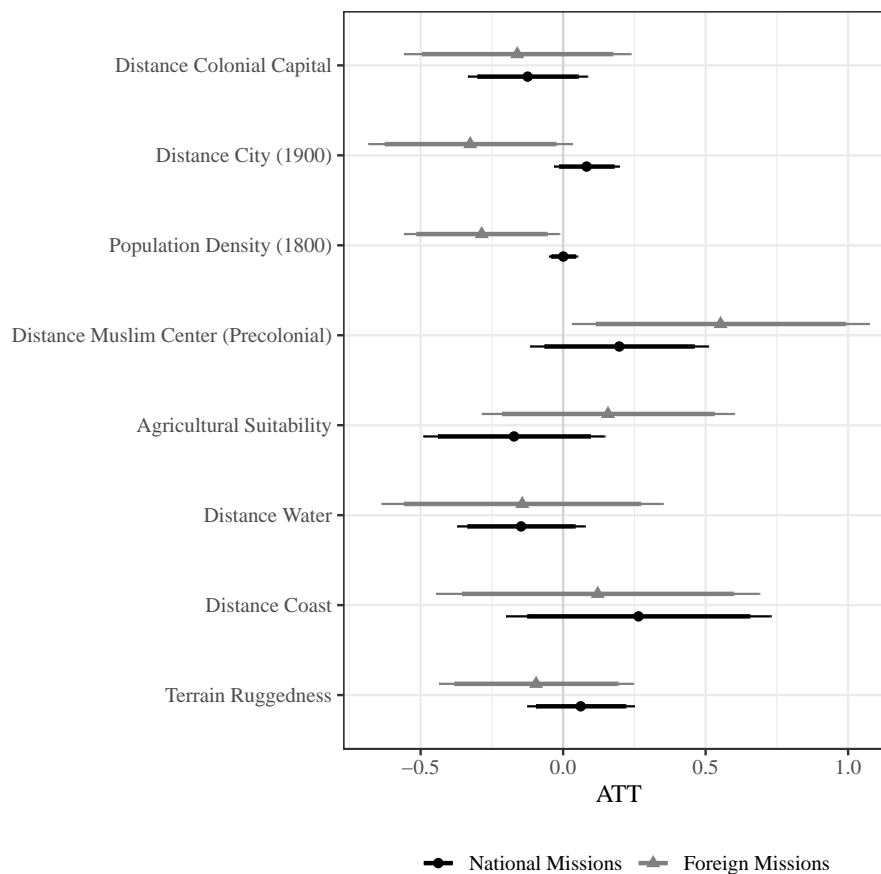
**Figure A4. Colonization Effects on Mission Entries (Robustness, Latest Source Dates).**

*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using latest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.



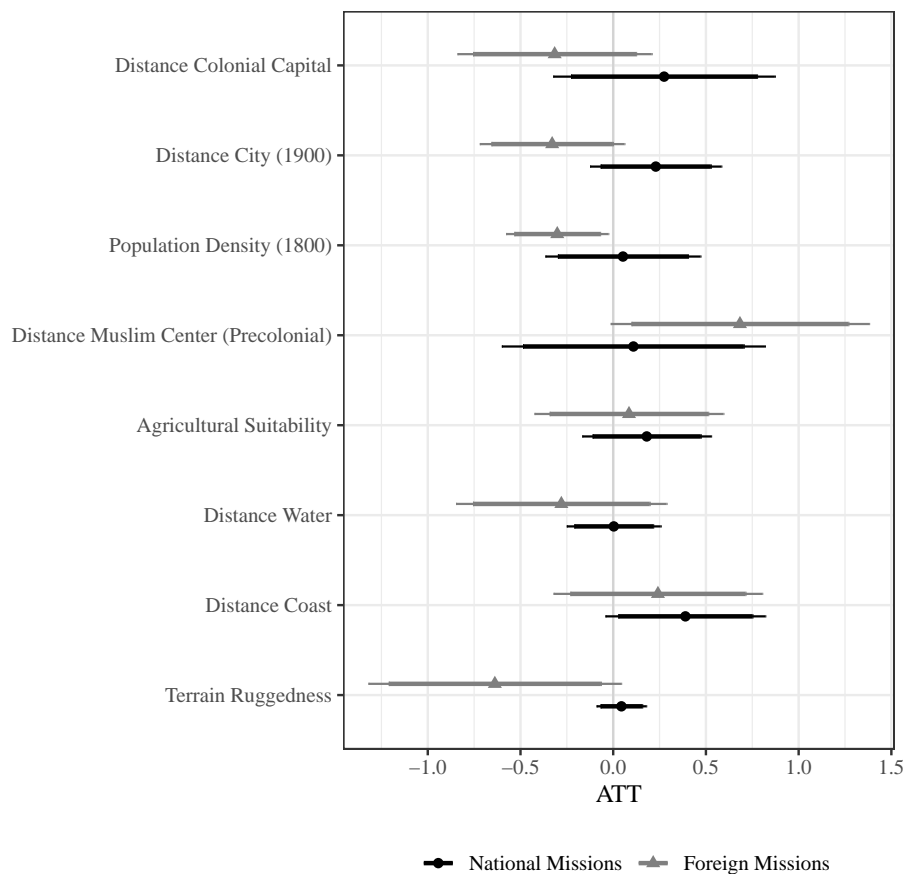
**Figure A5. Colonization Effects on Mission Entries (Robustness, Earliest Source Dates).**

*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using earliest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.

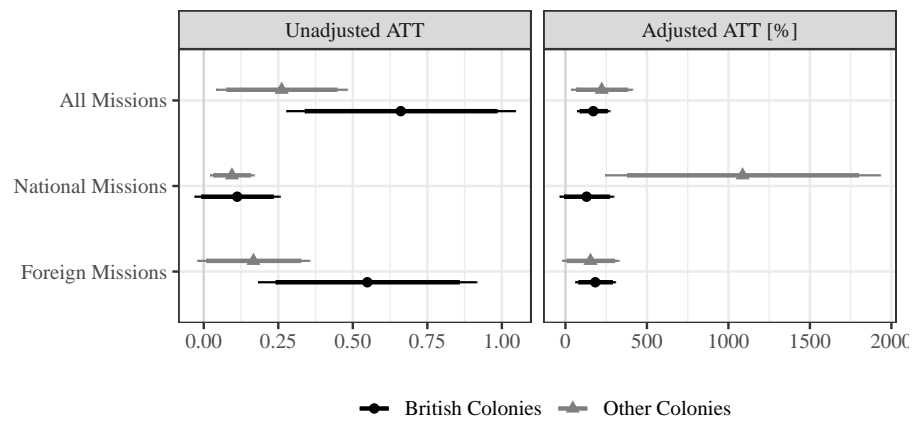


**Figure A6. Colonization Effects on Mission Locations (Robustness, Latest Source Dates).**

*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using latest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.

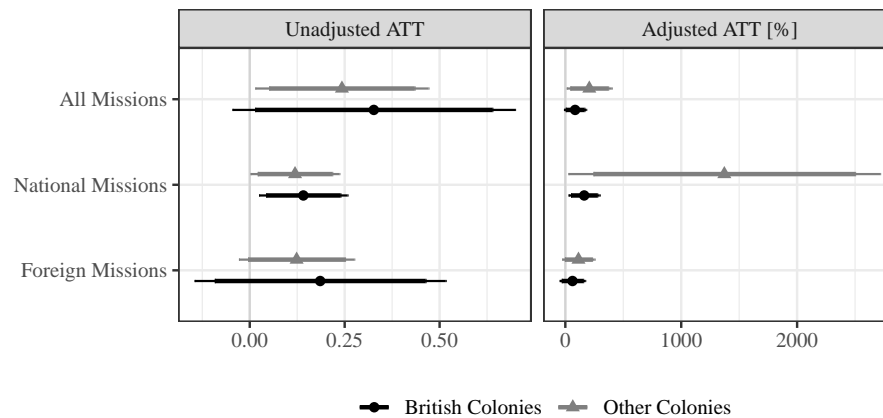


**Figure A7. Colonization Effects on Mission Locations (Robustness, Earliest Source Dates).**  
*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using earliest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.



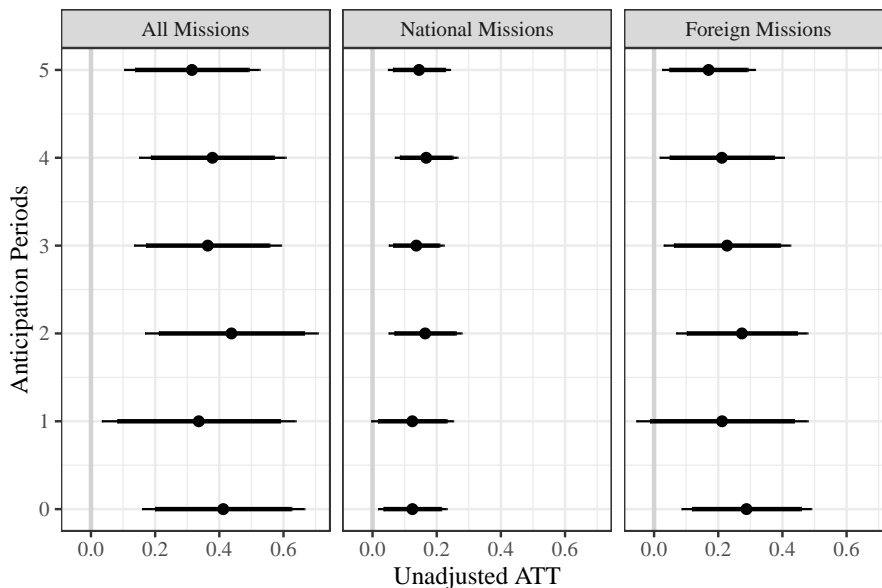
**Figure A8. Colonization Effects on Mission Entries across Empires (Robustness, Latest Source Dates).**

*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using latest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.

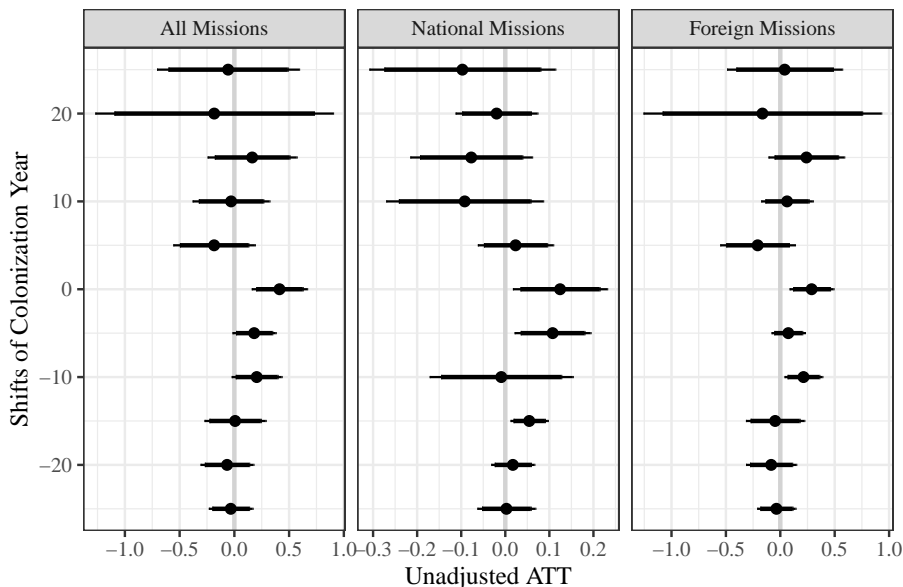


**Figure A9. Colonization Effects on Mission Entries across Empires (Robustness, Earliest Source Dates).**

*Note:* Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant'Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Estimated using earliest colonization dates indicated by any of the underlying sources in Becker (2019). Lines indicate 95% respectively 90% confidence intervals.



**Figure A10. Colonization Effects on Mission Entries with Anticipation.**  
*Note:* Anticipation periods refer to years before treatment; zero periods indicate effects without anticipation. Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant’Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Lines indicate 95% respectively 90% confidence intervals.



**Figure A11. Colonization Effects on Mission Entries using Placebo Treatments.**  
*Note:* Placebo Treatment based on arbitrary shifts of colonization date in five-year intervals; year zero refers to actual treatment. Average Treatment Effect on the Treated (ATT) based on DiD framework (Callaway & Sant’Anna, 2021), estimated using not-yet-treated observations as control group and doubly robust standard errors. Lines indicate 95% respectively 90% confidence intervals.



## Additional information

**Table A1**  
*Colonizations included in analytical dataset*

Colonizer	Colony	Year of colonization	Obs. before colonization	Obs. after colonization
Belgium	Belgian Congo	1885	85	40
Britain	Basutoland	1884	84	41
Britain	Bechuanaland	1895	95	30
Britain	Egypt	1882	82	43
Britain	Gambia	1888	88	37
Britain	Gold Coast	1874	74	51
Britain	Kenya	1895	95	30
Britain	Natal, SA	1843	43	77
Britain	Nigeria	1899	99	26
Britain	Nyasaland	1891	91	34
Britain	Orange Free State, SA	1902	102	18
Britain	Sierra Leone	1896	96	29
Britain	Sudan	1898	98	27
Britain	Swaziland	1903	103	22
Britain	Transvaal, SA	1902	102	18
Britain	Uganda	1894	94	31
France	Algeria	1848	48	77
France	French Congo	1882	82	43
France	French Sudan	1880	80	45
France	Gabon	1886	86	39
France	Guinea	1881	81	44
France	Madagascar	1895	95	30
France	Morocco	1912	112	13
France	Senegal	1854	54	71
France	Tunisia	1881	81	44
France	Ubangi-Shari	1906	106	19
France	Upper Volta	1895	95	30
Germany	Burundi	1899	99	23
Germany	German Cameroon	1884	84	32
Germany	German Togoland	1885	85	31
Germany	Rwanda	1899	99	16
Germany	South West Africa	1885	85	30
Germany	Tanganyika	1891	91	26
Italy	Eritrea	1890	90	35
Italy	Italian Somaliland	1905	105	20
Italy	Libya	1912	112	13
Portugal	Portuguese East Africa	1885	85	40
Spain	Equatorial Guinea	1858	58	67

**Table A2**  
*Mission societies appearing in World Missionary Atlas.*

Society	Origin	Count
Africa Inland Mission	Multiple	45
African Methodist Episcopal Church, Home and Foreign Department	USA	1
African Methodist Episcopal Zion Church, Foreign Mission Board	USA	1
Algiers Mission Band	Algeria	8
American Baptist Foreign Mission Society	USA	8
American Bible Society	USA	1
American Board of Commissioners for Foreign Missions	USA	16
American Friends Board of Foreign Missions	USA	5
American University at Cairo	USA	1
Angola Evangelical Mission	England	5
Assemblies of God, Foreign Mission Department, General Council	USA	10
Baptist Missionary Society	England	15
Berliner Missionsgesellschaft	Germany	64
Bethel Mission	Germany	13
Bethel Pentecostal Assembly	USA	6
Board of Foreign Missions of the Augustana Synod	USA	8
Board of Foreign Missions of the Reformed Church of America	USA	1
Brethren Church, Foreign Missionary Society	USA	1
British and Foreign Bible Society	England	8
Burning Bush Mission	USA	1
Christian and Missionary Alliance	USA	16
Christian Missions in Many Lands	England	35
Church Mission to Jews	England	4
Church Missionary Society (for Africa and the East)	England	88
Church of England - Province of South Africa	England	34
Church of God, Missionary Board	USA	2
Church of Scotland Committee for der Conversion of the Jews	Scotland	1
Church of Scotland Foreign Mission Committee	Scotland	9
Church of Scotland Women's Association for Foreign Missions	Scotland	5
Church of Scotland Women's Association for Jewish Missions	Scotland	1
Church of the Brethren, General Mission Board	USA	1
Church of the Lutheran Brethren, Board of Missions	USA	2
Church of the Nazarene, General Board of Foreign Missions	USA	8
Congo Evangelistic Mission	England	5
Congo Inland Mission	USA	4
Diocese of Johannesburg	England	2
Diocese of Kimberley and Kuruman	England	1
Diocese of Natal	England	3
Diocese of Pretoria	England	5
Egypt General Mission	England	9
Evangelisch-lutherische Mission zu Leipzig	Germany	17
Evangelisch-lutherische Missionsanstalt zu Hermannsburg	Germany	48
Evangelische Missionsgesellschaft für Deutsch-Ostafrika	Germany	2
Evangelische Missionsgesellschaft zu Basel	Switzerland	36
Evangeliska Fosterlands-Stiftelsen	Sweden	11
Finska Missionsällskapet	Finland	8
Foreign and Overseas Department of the English National Council of the Young Men's Christian Associations	England	1
Föreningen Kvinnliga Missions Arbetare	Sweden	1
Free Methodist Church, General Missionary Board	USA	7
French Evangelistic Mission	Algeria	1
Fri Baptister	Sweden	5
Fria Missionsförbundet	Finland	1
Friends' Foreign Mission Association	England	4
General Council of Cooperating Baptist Missions	USA	2
Gospel Missionary Society	USA	2
Gospel Missionary Union	USA	5
Gossnersche Missionsgesellschaft	Germany	1
Heart of Africa Mission	England	12
Helgelse-Förbundet	Sweden	9
Hephzibah Faith Missionary Association	USA	2
Holiness Movement Church	Canada	2
Holiness Movement Church	Canada	2
Independent	Independent	5
International Holiness Mission	England	3
London Missionary Society	England	14
Lutheran Board of Missions (Lutheran Free Church)	USA	7

Society	Place of origin	Count
Mennonite Brethren in Christ Church, United Missionary Society	USA	5
Methodist Episcopal Church, Board of Foreign Missions	USA	21
Methodist Episcopal Church, South, Board of Foreign Missions	USA	6
Mildway Mission to the Jews	England	1
Mission der Brüdergemeinde	Multiple	14
Mission der hannoverschen evangelisch-lutherischen Freikirche	Germany	9
Mission Philafricaine	Switzerland	2
Mission Suisse Romande	Switzerland	13
Missionsgesellschaft der Deutschen Baptisten	Germany	6
Missionssällskapet Bibeltrogna Vänner	Sweden	3
Nederduitsche Geref. Kerk in Z.-A., Alg. Zend. Com.	Netherlands	19
Nederduitsche Geref. Kerk, Oranje Vrystaat, Zend. C.	Netherlands	22
Nederduitsche Her. Geref. Kerk Z.-A., Zend. Com.	Netherlands	21
Neukirchener Waisen- und Missionsanstalt	Germany	10
Nile Mission Press	England	1
Nile Mission Press	England	1
Norddeutsche Missionsgesellschaft	Germany	9
Norges Frie Evangeliske Hedningemission	Norway	4
Norske Kirkes Mission ved Schreuder	Norway	5
Norske Missionssekskap	Norway	43
North Africa Mission	England	19
Norwegian Lutheran Church of America, Board of Foreign Missions	USA	9
Nyassa Industrial Mission	England	3
Örebro Missionsförening	Sweden	2
Peniel Missionary Society	USA	1
Pentecost Faith Mission	USA	3
Pentecostal Assemblies of the World, Foreign Mission	USA	2
Pentecostal Holiness Church, General Mission Board	USA	2
Pentecostal Missionary Union for Great Britain	England	1
Pittsburg Bible Institute, Evangelization Society	USA	2
Presbyterian Church in U.S., Exec. Com. of Foreign Missions	USA	4
Presbyterian Church in U.S.A., Board of Foreign Missions	USA	9
Presbyterian Church of South Africa, Miss. Com.	South Africa	1
Primitive Methodist Missionary Society	England	14
Qua Iboe Mission	Ireland	12
Raymund Lull Home	Morocco	1
Reformed Church in America, Board of Foreign Missions	USA	1
Regions Beyond Missionary Union	England	7
Rheinisch-westfälischer Diskonissenverein	Germany	2
Rheinische Missionsgesellschaft	Germany	28
Sällskapet Svenska Baptistmissionen	Sweden	2
Salvation Army	England	7
Scandinavian Alliance Mission of North America	USA	7
Scandinavian Assemblies of God (Pentecostal)	USA	2
Schleswig-holsteinische evangelisch-lutherische Missionsgesellschaft zu Breklum	Germany	3
Seventh-Day Adventist Denomination, General Conference	USA	34
Sierra Leone Mission	England	1
Société Belge de Missions Protestantes au Congo	Belgium	2
Société des Missions évangéliques de Paris	France	40
Society for the Propagation of the Gospel	England	34
South Africa General Mission	Multiple	18
South African Baptist Missionary Society	South Africa	1
South African Compounds and Interior Mission	South Africa	3
South African Missionary Society	South Africa	24
Southern Baptist Convention, Foreign Mission Board	USA	6
Southern Morocco Mission	Scotland	4
Standard Church of America	Canada	1
Sudan Interior Mission	Canada	20
Sudan Mission	USA	1
Sudan Pioneer Mission	Germany	3
Sudan United Mission	Multiple	21
Svenska Alliansmissionen	Sweden	3
Svenska Fria Missionen	Sweden	2
Svenska Kyrkans Mission	Sweden	10
Svenska Missionsförbundet	Sweden	11
Svenska Mongolmissionen	Sweden	2
Swedish Evangelical Free Church of U.S.	USA	1
Swedish Mission in Egypt	Egypt	3
Trust Society, Furtherance of Gospel (Moravians)	England	3

Society	Place of origin	Count
United Brethren in Christ, Domestic and Foreign Missionary Society	USA	2
United Brethren in Christ, Foreign Missionary Society	USA	7
United Christian Missionary Society	USA	4
United Free Church of Scotland, Foreign Mission Com.	Scotland	35
United Methodist Church Missionary Society	England	4
United Presbyterian Church, Board of Foreign Missions	USA	15
United Presbyterian Church, Women's General Missionary Society	USA	14
Universities' Mission to Central Africa	England	21
Ver. tot Uitbreiding v. het Evangelie in Egypte	Netherlands	1
Vereeniging voor Soendaneesche Meisjescholen	Netherlands	1
Wesleyan Methodist Conn. of America, Missionary Society	USA	4
Wesleyan Methodist Missionary Society	England	34
West Indian African Mission	England	4
Westcott Mission	Belgian Congo	2
World's Sunday School Association	USA	1
World Sunday School Association	USA	1
Y. M. C. A., Foreign Department, English National Council	England	1
Y. M. C. A., International Community, Foreign Department	USA	1
Y. M. C. A., Local Association	Egypt	1
Zambesi Industrial Mission	England	6

## Description of geographic variables

All geographic variables are computed based on the exact geographic location of each mission and secondary geocoded data sources. Annual average values are computed for each year and colonization for all missions present in a given year.

***Distance Colonial Capital.*** Log Distance from each colony’s capital. Based on Schvitz et al. (2022).

***Distance City (1900).*** Log Distance to city with more than 10,000 inhabitants in 1900. Based on Becker (2021) and Jedwab and Moradi (2016).

***Population Density (1800).*** Pre-colonial population density (Scale converted to hundreds). Based on Klein Goldewijk, Beusen, and Janssen (2010).

***Distance Muslim.*** Log Distance from nearest Muslim center. Based on data from Jedwab, Meier zu Selhausen, and Moradi (2022).

***Agricultural Suitability.*** Crop suitability index for intermediate input level rain-fed maize (Scale converted to thousands). Based on raster data from “Global Agro-ecological Zones (GAEZ v3.0)” (2011) with a 5 arc-minute resolution.

***Distance Water.*** Log Distance to nearest body of water. Based on information about rivers and lakes in Africa from [www.naturalearth.com](http://www.naturalearth.com); data retrieved through the R package `rnaturalearth`.

***Distance Coast.*** Log Distance to nearest coastline. Based on data from [www.naturalearth.com](http://www.naturalearth.com); retrieved through the R package `rnaturalearth`.

***Ruggedness.*** Ruggedness of terrain (Scale converted to hundreds). Based on coarsened raster data provided by Shaver, Carter, and Shawa (2016).

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