

# The Mission and the Brotherhood: The Role of Colonial Christian Missionaries on Contemporary Politics in Egypt\*

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## Abstract

This paper studies the long-term impact of Christian missions in colonial Egypt on present-day electoral outcomes. I combine contemporary census and election data at the district level with historical information on the spatial distribution of Christian missionaries and Muslim Brotherhood branches in early twentieth-century Egypt. I document a robust negative association between proximity to historical Christian missions and the support for Muslim Brotherhood in the 2012 Egyptian presidential elections. I do not find any relationship between Christian missions and historical Muslim Brotherhood presence. Finally, I present evidence that missions' lasting effect is partly explained by increased education and urbanization. My findings indicate that exposure to historical Christian missions may have repercussions in contemporary politics beyond political participation through voting behavior, therefore, shaping the modern-day political environment and institutions.

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# 1 Introduction

In their quest to convert the colonized New World into Christianity, missionaries invested in providing Western-style educational and welfare institutions to local populations. A broad range of studies in economics and political science literature documented that their investments had long-term economic and political consequences in today's world across different continents.<sup>1</sup> In particular, exposure to historical Christian missionaries during the colonial period had a substantial effect on modern-day education (Valencia Caicedo, 2019; Waldinger, 2017; Nunn et al., 2014), economic development (Bai and Kung, 2015), democracy (Woodberry, 2012; Lankina and Getachew, 2012; Owolabi, 2015), and political participation (Wantchekon et al., 2015; Cagé and Rueda, 2016; Henn et al., 2021). Yet, less is known about whether colonial Christian missionaries had repercussions in contemporary politics going beyond political participation, shaping the current world's political environment and institutions.

This paper empirically investigates the role historical Christian missionaries played in Egypt on electoral support for Islamist movements nowadays. As in other parts of the world, Christian missionaries arrived in colonial Egypt to convert Muslims and indigenous Copts to their denomination and provided education, health, and other welfare services in the areas they operated. This paper shows that although Christian missionaries failed to convert Egyptians into Christianity, they had a role in weakening the support for Islamist movements partly due to their long-run impact on modern-day education and urbanization.

To analyze the political consequences of historical Christian missionaries, I utilize several historical and contemporary datasets, including information on historical Christian missionary and Muslim Brotherhood presence, as well as contemporary electoral outcomes and demographics. To empirically assess the role of exposure to

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<sup>1</sup>See Jedwab et al. (2019) Appendix for a survey of the missions literature.

historical Christian missionaries on contemporary support for Islamist movements, I estimate an econometric model of electoral outcomes in 2012 Egyptian presidential elections on the distance between a district's centroid and the nearest Christian mission station, while accounting for geographic, historical, and time-invariant governorate characteristics. I find a robust positive (negative) link between distance (proximity) to a mission station and electoral support for Islamist movements. In the most demanding specification, a 1 percent increase in distance (proximity) to a mission station is associated with a statistically significant 2.3 percentage points increase (decrease) in the first-round vote share of the Muslim Brotherhood candidate and a 3 percentage points increase (decrease) for all Islamists combined. Moreover, I do not find an association between historical Muslim Brotherhood presence and contemporary support for Islamist movements.

Importantly, I find no relation between the historical presence of the Muslim Brotherhood in the late 1930s —measured by the number of nearby Muslim Brotherhood branches— and distance to Christian mission stations. While this finding implies that Muslim Brotherhood branches were not selected into areas nearby Christian mission stations, it may also suggest that missions were not selected into areas where Islamism was relatively weaker. In addition to including standard geographical and historical controls in the missions literature, I calculate [Oster \(2019\)](#) bounds to check the robustness of my main results and assess the extent of selection bias due to unobservables. I find that the bias from unobservables should be several times larger than observables to explain away my main effect.

Finally, I present empirical evidence on increased education and urbanization as potential mechanisms behind my findings while ruling out other mediator channels such as religious conversion and historical religious competition. For all outcomes, I find that increase in contemporary education and urbanization explains more than half of the association between exposure to historical Christian missionaries and modern-day

electoral support for Islamist candidates. My empirical findings align with recent political theories —the comparative advantage of Muslim Brotherhood in welfare provision relative to the secular left in attracting the poor and uneducated— behind the success of the Muslim Brotherhood in the 2012 Egyptian presidential elections ([Masoud, 2014](#)). On the other hand, I fail to find any empirical evidence that the exposure to Christian missions or historical competition between missions and the Muslim Brotherhood acted as mechanisms for my findings. In particular, I find a precisely estimated zero effect on religious conversion, indicating Christian missions in Egypt were not successful in converting the local population into Christianity. Those empirical findings align with previous historical studies that argue missions had trouble converting Muslims into Christianity ([Sharkey, 2013a,b](#); [Baron, 2014](#)).

This article contributes to a growing literature on the legacies of historical Christian missionaries in contemporary economic and political outcomes. Previous studies in economics and political science literature have documented that exposure to Christian missionaries is associated with better modern-day education-, health-, and urbanization-related outcomes in various contexts ([Valencia Caicedo, 2019](#); [Waldinger, 2017](#); [Nunn et al., 2014](#); [Calvi et al., 2020](#); [Calvi and Mantovanelli, 2018](#); [Cagé and Rueda, 2020](#); [Bai and Kung, 2015](#); [Castelló-Climent et al., 2018](#)). A few studies examining the political consequences of historical Christian missionaries have shown that exposure to mission stations is positively associated with democracy, political participation, nationalist backlash, and state capacity ([Woodberry, 2012](#); [Lankina and Getachew, 2012](#); [Owolabi, 2015](#); [Wantchekon et al., 2015](#); [Cagé and Rueda, 2016](#); [Henn et al., 2021](#); [Mattingly and Chen, 2021](#); [Dulay, 2021](#)). This paper contributes to this literature by showing that exposure to historical Christian missions may have consequences in contemporary politics beyond political participation through voting behavior, therefore, shaping the modern-day political environment and institutions. This paper also extends the empirical evidence from non-Muslim countries on the positive association between

exposure to Christian missionaries and contemporary education and urbanization to Egypt, a significant Muslim-majority country.

This paper also adds to the literature on the role of religious institutions in contemporary support for the parties with religious agendas. Previous studies have shown that religious institutions in Islam and Judaism strengthen the support for electoral parties with religious agendas (Bazzi et al., 2020; Benzer, 2022; Grewal, 2020; Freedman, 2020). This paper differs by providing evidence that religious institutions of competing religions may effectively weaken the support for political parties with strong attachments to opposite religious agendas. I argue that, even in the absence of religious conversion, the investments made by competing religious institutions in education and economic development may have consequences to shape the voting behavior hindering the support for political entities of opposite religious agendas through socioeconomic changes.

## **2 Historical and Institutional Background**

### **2.1 Christian Missions in Colonial Egypt**

In 1492, Christoph Columb set sail from the port of Seville and ignited the beginning of a new era that Europeans colonized a vast amount of inhabited areas of the New World. Missionary activity was one of the most prominent institutions of colonization, together with slavery and exploitation. Missionaries' primary aim was to convert local populations into Christianity. Missionaries started their endeavor by preaching the gospel. Later on, they invested heavily in education and providing welfare institutions like hospitals, orphanages, etc., to win the hearts and minds of the locals(find citation). Protestant missions specifically emphasized providing literacy since making individuals read and understand the Holy Bible was one of the main pillars of Protestantism. In the end, they achieved notable success in spreading Christianity to a significant portion of

the colonized regions where non-Abrahamic religions were in domination ([Carter, 1984](#); [Sisman, 2015](#)).

Christian missions also tried to convert Muslim populations in several contexts that eventually failed. Starting from the nineteenth century, they established several mission stations in the Muslim majority parts of Africa. Colonial Egypt was a country of interest for missionaries due to its indigenous Christian Coptic community. Although there were some missionary efforts on a small scale before the late nineteenth century, the rise of Christian missions, primarily Protestant, started with the British Occupation of Egypt in 1882. They first targeted to convert Christian Copts to their denominations ([Sharkey, 2013a](#); [Baron, 2014](#)). They also invested heavily in education and welfare provision, as they did in other contexts. The provision of these institutions was not exclusive to Copts. Mission schools also taught Muslims, Jews, and many others and provided health and welfare services for everyone. This facilitated their much-needed exposure to Muslims to win souls for Christ. In the end, missionaries only converted a negligible number of Muslims. Still, they played an essential role in developing educational and welfare institutions in Egypt with their supply and the supply from the state and other Muslim organizations due to the backlash and competition.

The quest for conversion in a Muslim majority country was not an easy task, and Christian missionaries encountered fierce resistance from Islamic organizations along the way. Due to their activities to convert Muslims, they were vulnerable to agitations from Muslim organizations that resisted and competed with their social activities. Starting from the 1920s, they became a focal point for the anti-colonial nationalist movements and had intended consequences that led to the emergence of influential Islamist organizations ([Baron, 2014](#); [Sharkey, 2013b](#)). Undoubtedly, the most prominent of these groups was the Muslim Brotherhood. Muslim Brotherhood spearheaded and mobilized the national anti-colonial movement with its Islamist rhetoric against the few Christian conversions leading to the decline of Christian missionaries. Although few

kept their existence after the independence of Egypt, they lost their rights to provide education and welfare and were restricted in their missionary activities ([Sharkey, 2013a](#)).

## **2.2 The Muslim Brotherhood**

One of the most well-known Islamist organizations, the Muslim Brotherhood, was founded in 1928 by Hassan al-Banna, an Islamic scholar and teacher. Raised during a period when Christian missionaries aggressively expanded their conversion activities towards Muslims, Hassan al-Banna saw Christian missionaries as a severe threat to the future of Islam in Egypt ([Lia, 1998](#)). Taking the anti-colonial tide of the 1930s behind them, the Muslim Brotherhood expanded rapidly, becoming one of Egypt's most influential political movements for the decades to come.

Apart from missionaries' role in the emergence of the Muslim Brotherhood, a historical argument was that the Muslim Brotherhood was inspired by Christian missionaries to provide education and other social welfare activities ([Sharkey, 2013a](#); [Baron, 2014](#)). During the time Al-Banna spent in his hometown Ismailiyya, a coastal town in the Suez Canal area, he closely observed the welfare provision methods, including schooling and orphanage activities, that Christian missionaries used to charm the Muslim youth into Christianity ([Lia, 1998](#); [Baron, 2014](#)). He decided that the Brotherhood should compete with Christian missionaries in all areas of welfare provisions and business activities to estrange Muslims from the missionary activity. Therefore, social welfare provision became one of the main strengths of the Muslim Brotherhood since its foundation and argued as one of the key reasons for the success of Islamist organizations ([Bayat, 2007](#); [Brooke, 2017](#); [Cammett and Issar, 2010](#); [Clark et al., 2004](#); [Masoud, 2014](#)).

By the end of the 1930s, the Muslim Brotherhood had notable success in attracting masses with its more than two hundred branches and tens of thousands of members ([Lia, 1998](#); [Brooke and Ketchley, 2018](#)). This achievement made them one of the most

influential figures in the political life of Egypt. They openly challenged the colonial administration and the Egyptian governments after the independence in 1945. Their resistance methods also involved violent practices such as bombings and killings, including the assassination of a prime minister, which led to their banning. This was the beginning of turbulent periods in Egyptian political and social life, and the Brotherhood had to operate under the radar for many decades to come.

### **2.3 The 2012 Egyptian Presidential Elections**

In the early 2010s, the Arab world experienced a series of anti-government protests and uprisings, so-called “Arab Spring” due to its pro-democratic nature at some point, some of which led to the fall of authoritarian regimes. Egypt was among those countries that the Arab Spring had major consequences. The three-decade-long rule of Hosni Mubarak, a military officer that turned into an autocratic ruler, ended after violent protests and uprisings in 2011.

Egypt held its first democratic presidential elections in 2012 using a two-round election system to find its new ruler. Thirteen candidates participated in the presidential elections, including Mohamed Morsi, the candidate of the Muslim Brotherhood. The elections were a significant milestone for all Islamist movements in Egypt. For the first time in Egyptian history, they had their chance to prove their political power in a country where religion dominates social and public life. They did so. Morsi became first in the first round of elections by taking 25 percent of the valid votes and qualified for the second round. In the run-off, he narrowly won against Ahmed Shafiq, a political and military figure of the Mubarak regime, with a 52-48 margin, becoming Egypt’s first democratically elected president. [Masoud \(2014\)](#) argues that the reason behind the success of the Muslim Brotherhood was its comparative advantage relative to the secular left in attracting the poor and uneducated with its ability to provide social welfare through its institutions.



However, the rule of Muslim Brother was short-lived and ended brutally. Not even a year has passed since Morsi's election, anti-government protests erupted by the opposition, citing increasing authoritarianism and a push of Islamist agenda undermining the rights of secular groups and Christian Copts. Morsi supporters held counter-protest to show their support for Morsi. After the violent events between the two factions in June 2013, the military gave an ultimatum to political parties to resolve the issue. Two days after the ultimatum, the army removed Morsi from the presidency with a coup d'état and suppressed Morsi supporters' unrest by brute force, leading to hundreds of deaths.

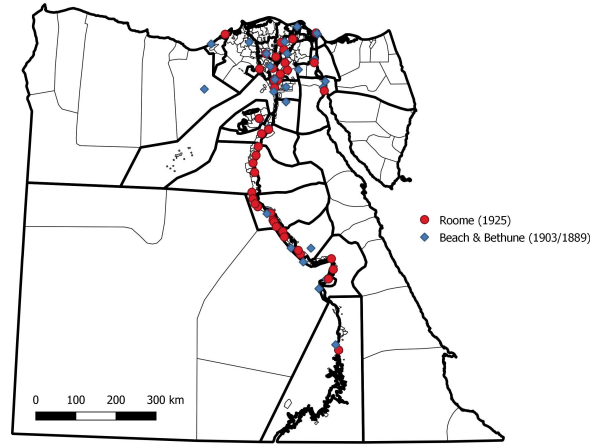
## 3 Data

### 3.1 Historical Data

I utilize historical data from several different sources to conduct my analysis and describe them in this section.

**Data on Historical Christian Missions.** In my main analysis, I use data from [Nunn \(2010\)](#) to locate historical missions. This dataset includes information about the geographic coordinates of historical missions in Africa digitized from the "Ethnographic Survey of Africa" ([Roome, 1925](#)). I also use another data source from "the Atlas of Protestant Missions" ([Beach, 1903](#)) for Protestant missions and the "Geography and Atlas of Christian Missions" ([Béthune, 1889](#)) for Christian missions. Those datasets were recently utilized in the missions literature by [Cagé and Rueda \(2016\)](#). I use those alternative mission location data as a robustness check since they are from earlier periods and differ from the original data. While Roome's survey has 47 mission stations located in Egypt, Beach's and Bethune's survey have 20. The maps of the locations of the Christian mission are presented in [Figure 1](#).

**Figure 1:** Locations of Christian Mission Stations in Egypt



*Notes:* The map shows the exact location of Christian Missions, along with district and governorate boundaries of Egypt taken from Nunn (2010) and Cagé and Rueda (2016).

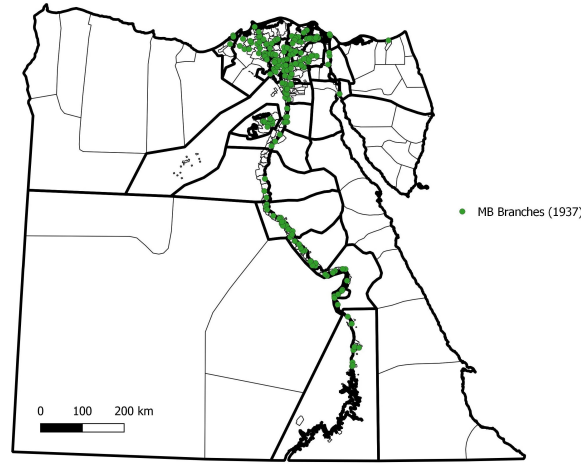
**Data on Historical Muslim Brotherhood Branches.** This paper uses two different surveys, one from 1937 and the other from 1940, including information on the historical locations of Muslim Brotherhood branches. Those surveys first collected by Goma'a (2003) and recently used by Masoud (2014) and Brooke and Ketchley (2018). The 1937 survey lists 212 Muslim Brotherhood branches, and 8 of them have missing information thus cannot be geolocated. The 1940 survey differs significantly from the 1937 survey due to a break-up resulting from internal conflicts. While the 1940 survey listed 260 branches, 238 of them could be precisely assigned by Brooke and Ketchley.<sup>2</sup> The maps of the locations of the historical Muslim Brother branches are presented in Figure 2.

**Historical and Geographic Controls.** I collect several geographic controls used in the missions literature to include in my analysis as control variables. The information on the pre-colonial population density of localities comes from the "History Database of the Global Environment - HYDE 3.1" (Klein Goldewijk et al., 2010, 2011). The average suitability for several crops and historical mean annual rainfall information comes from the Global Agro-Ecological Zones (GAEZ v3.0) data.<sup>3</sup> I use data from CGIAR SRTM3 to

<sup>2</sup>For more information about the surveys see data section of Brooke and Ketchley (2018).

<sup>3</sup>Available here: <https://www.gaez.iiasa.ac.at>

**Figure 2:** Locations of Muslim Brotherhood Branches in Egypt



*Notes:* The map shows the location of Muslim Brotherhoood Branches in 1937, along with district and governorate boundaries of Egypt taken from [Brooke and Ketchley \(2018\)](#).

obtain measures for ruggedness.<sup>4</sup> Pre-colonial explorer and railway routes in Egypt comes from [Nunn and Wantchekon \(2011\)](#). Historical malaria intensity information is from [Piel et al. \(2010\)](#).<sup>5</sup>

### 3.2 Contemporary Data

This paper also benefits from contemporary data from different sources to conduct the analysis, and I describe them in this section.

**Data on the 2012 Egyptian Presidential Elections and the 2006 Census.** My main outcome of interest, the electoral results of the 2012 presidential elections, are obtained from [Abadeer et al. \(2018\)](#). This dataset includes the necessary information on the first- and second-round vote shares of presidential candidates and turnout rates at the district level. Demographic characteristics of districts prior to the 2012 elections were also collected from the 2006 Egyptian Census and complemented this dataset by [Abadeer et al. \(2018\)](#). Those demographic characteristics include district-level information on education, labor markets, population, and urbanization. I complement this data by

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<sup>4</sup>Available here: <https://srtm.csi.cgiar.org/>

<sup>5</sup>I use prevalence of sickle gene cell as a measure of malaria intensity.

collecting information on the share of the Christian population from the 2006 Census. Appendix table A1 presents the summary statistics for districts within 5 km and districts further away.

## 4 Empirical Analysis

This section presents my main specification and documents the relationship between exposure to Christian missionaries and contemporary electoral outcomes in Egypt. In addition, I also analyze the relationship between historical Muslim Brotherhood presence and electoral outcomes.

### 4.1 Specification

To evaluate the role of colonial Christian missions on contemporary electoral outcomes, I estimate the following OLS regression:

$$y_{gd} = \alpha + \beta \text{Distance to Mission}_{gd} + \mathbf{X}_{gd}\delta + \gamma_g + \epsilon_{gd}, \quad (1)$$

where  $y_{gd}$  is the electoral outcomes of district  $d$  in governorate  $g$ . *Distance to Mission* $_{gd}$  is the logarithm of the distance between a district centroid and closest mission station.  $\gamma_g$  are sets of governorate fixed effects that capture all time-invariant characteristics of governorates. Therefore, the baseline estimation exploits only the within-governorate variation.  $\mathbf{X}_{gd}$  vector consists of geographic and historical controls commonly used in missions literature. This vector of controls consists of district-level characteristics, including historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. I do not use any contemporary controls for the baseline specification to avoid post-treatment bias. However, I also include some relevant

contemporary controls for electoral outcomes, such as the unemployment rate and Christian shares, to check the sensitivity of my results in section 5. I cluster my standard errors at the governorate level. Since there are only 27 governorates, I also present wild clustered bootstrapped p-values for each regression.

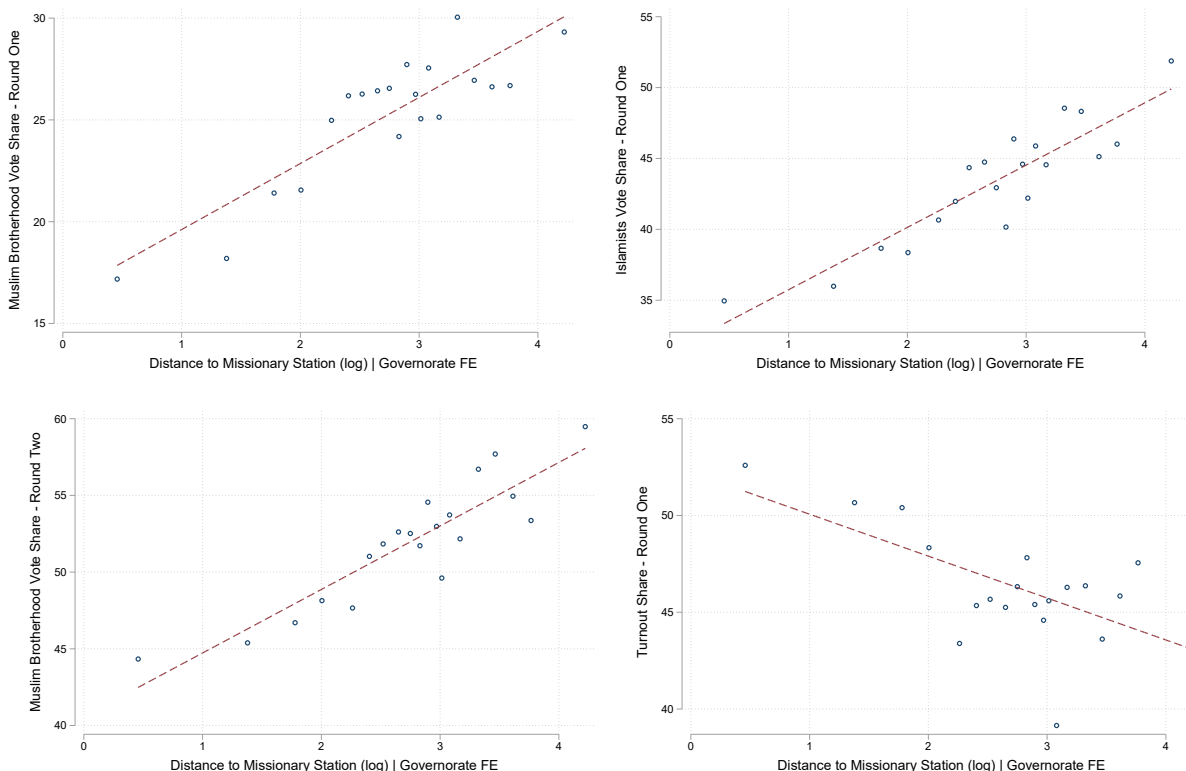
The coefficient of interest  $\beta$  has a causal interpretation if and only if  $\mathbf{X}_{gd}$  and governorate fixed effects account for all relevant determinants of historical mission locations that may also be correlated with contemporary electoral outcomes. This is, in fact, a strong assumption since mission stations were more likely to settle more populated areas with favorable geographic and economic characteristics in Africa (Jedwab et al., 2019; Johnson, 1967), as well as in Egypt, as seen in table 1. Moreover, in the Egyptian experience, it is also possible that Christian missions strategically located themselves in areas with a higher share of the Christian Copt population and with overall more positive attitudes towards Christians. To alleviate concerns related to the latter argument, I analyze whether districts exposed to Christian missions differed relative to further away districts in terms of historical Muslim Brotherhood presence and included it as a control to check the sensitivity of my results in section 5. In addition to including all of these highly relevant controls in my regressions, I also calculate Oster (2019) bounds to check the robustness of my main results and assess the extent of selection bias due to unobservables in section 5.

## 4.2 Christian Missions and Contemporary Politics

Before starting my regression analysis, I illustrate the main findings of this paper in Figure 3. The graph plots the relationship between the natural logarithm of distance to a mission station and several electoral outcomes conditional on governorate fixed effects. Panels (a) and (b) of this figure present results for the first and second rounds of the election, respectively. These graphs point out a significant positive relationship between the distance to historical mission stations and the vote share of Morsi and all Islamist

candidates combined for both rounds of election. There also exists a negative relationship between the distance to historical mission stations and turnout rates.

**Figure 3: Binscatter of Electoral Outcomes on Missionary Distance (log)**



*Notes:* This graph plots binned scatter plot of electoral outcomes with fitted line versus logged distance to the nearest mission station. conditional on governorate fixed effects. Outcomes are Morsi vote share in round one in Panel (a), Islamists combined vote share in round one in Panel (b), Morsi vote share in round two in Panel (c), turnout rate in round one in Panel (d). The observations are binned into 20 equal-sized bins.

Next, I estimate the regressions in equation 1 to quantify these findings and to include relevant controls, and present them in Table 1. I begin my analysis by showing the bivariate relationship between proximity to mission stations and outcomes of interest in columns 1, 4, and 7 of this table. There is a significant positive correlation between distance to mission stations and the support for Morsi or all Islamist candidates combined, suggesting the further away the district is from a mission station, the higher support for Islamists. The estimates remain positive and significant when I include governorate fixed effects and geographic and historical controls, as seen in columns 3, 6,

and 9 of panel (a). In those most demanding specifications, a 1 percent increase in distance (proximity) to a mission station is associated with a statistically significant 2.3 percentage points increase (decrease) in the first-round vote share of Morsi and a 3 percentage points increase for all Islamists combined. The estimate for Morsi's vote share remains similar in magnitude for the second round, as shown in column 3 of panel (b). There is also a statistically significant negative (positive) association between distance (proximity) to a mission station and turnout rates for both elections. This result on political participation is in line with the previous findings in the economics and political science literature (Cagé and Rueda, 2016; Wantchekon et al., 2015; Henn et al., 2021). As expected, Shafiq's second-round vote share decreases for districts further away from mission stations.

**Table 1: Christian Missions and Contemporary Politics**

Panel A. Round One Elections									
Outcome:	Morsi Vote Share			Islamist Vote Share			Turnout Rate		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Distance to Mission Station (log)	1.96** (0.85)	3.25*** (0.62)	2.30*** (0.62)	3.75** (1.39)	4.39*** (0.89)	3.02*** (0.60)	-3.01*** (0.64)	-2.17** (0.88)	-2.02** (0.78)
R <sup>2</sup>	0.06	0.56	0.67	0.13	0.68	0.78	0.12	0.58	0.68
Observations	326	326	325	326	326	325	326	326	325
Clusters	27	27	27	27	27	27	27	27	27
Mean Outcome	25.20	25.20	25.19	18.11	18.11	18.11	46.33	46.33	46.35
Governorate FE		✓	✓		✓	✓		✓	✓
Historical and Geo Controls			✓			✓			✓
Wild Clust. Boot. (p-value)	0.043	0.000	0.000	0.016	0.000	0.000	0.001	0.022	0.016
Panel B. Round Two Elections									
Outcome:	Morsi Vote Share			Shafiq Vote Share			Turnout Rate		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Distance to Mission Station (log)	4.13*** (1.06)	4.14*** (0.85)	2.48*** (0.61)	-3.77*** (1.02)	-3.84*** (0.81)	-2.27*** (0.65)	-2.76*** (0.54)	-1.31* (0.67)	-1.23* (0.66)
R <sup>2</sup>	0.17	0.65	0.73	0.15	0.64	0.72	0.15	0.57	0.65
Observations	326	326	325	326	326	325	326	326	325
Clusters	27	27	27	27	27	27	27	27	27
Mean Outcome	51.85	51.85	51.88	44.98	44.98	44.85	51.02	51.02	51.02
Governorate FE		✓	✓		✓	✓		✓	✓
Historical and Geo Controls			✓			✓			✓
Wild Clust. Boot. (p-value)	0.000	0.000	0.002	0.002	0.000	0.008	0.000	0.068	0.079

Notes: This table shows the coefficients of logged distance to the nearest mission stations from equation 1 for first and second rounds of election in panels a and b, respectively. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are included in some specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

### 4.3 Additional Results

This section presents additional results using different outcome and explanatory variables and conducts heterogeneity analysis exploiting the historical competition between the Brotherhood and the Christian missions.

**Christian Missions and Historical Muslim Brotherhood Presence.** A hypothesis behind the emergence of the Muslim Brotherhood in the 1930s is their contact with the Christian missionaries and their resistance afterward (Baron, 2014; Sharkey, 2013b). Although this may be possible at the national level, a recent study by Brooke and Ketchley (2018) showed that it was not the case at the local level. Namely, they failed to find empirical evidence that historical Muslim Brotherhood branches were more likely to be present in areas where Christian missionaries were operating. To confirm this finding, I estimate the OLS regression in equation 1 using the historical presence of the Muslim Brotherhood as my outcome of interest. I measure the presence as the total number of Muslim Brotherhood branches in a district, within 5km of district centroid, or within 10km of district centroid.

**Table 2:** Christian Missions and Historical Muslim Brotherhood Presence

Outcome:	# MB Branches		# MB Branches 5km Diameter		# MB Branches 10km Diameter	
Data Year:	1937 (1)	1940 (2)	1937 (3)	1940 (4)	1937 (5)	1940 (6)
Distance to Mission Station (log)	-0.02 (0.06)	-0.03 (0.07)	0.00 (0.06)	-0.09 (0.08)	-0.04 (0.17)	-0.19 (0.17)
$R^2$	0.32	0.32	0.62	0.61	0.68	0.63
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Mean Outcome	0.62	0.72	0.88	0.82	2.08	2.10
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.724	0.671	0.942	0.339	0.820	0.301

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are different measures of historical Muslim Brotherhood presence, described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included for all estimations.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.



Odd and even columns of Table 2 present results with 1937 and 1940 branch datasets, respectively. I find no statistically significant relationship between historical Muslim Brotherhood presence and distance to mission stations. My results align with the previous findings suggesting that historical Muslim Brotherhood branches were not selected into areas nearby Christian missions stations. Although those branches were established after mission stations, this evidence may also be suggestive that missions were not selected into areas where pre-colonial Islamism was weaker.

**Historical Muslim Brotherhood Presence and Contemporary Politics.** Next, I focus on whether a relationship exists between historical Muslim Brotherhood presence and contemporary Muslim Brotherhood electoral support. I estimate the OLS regression in equation 1 using measures of historical Muslim Brotherhood presence as my explanatory

**Table 3: Historical Muslim Brotherhood Presence and Electoral Outcomes**

Panel A. 1937 MB Branch Survey						
Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shafiq (5)	Turnout (6)
# Muslim Brotherhood Branches in 1937	0.20 (0.36)	0.53 (0.35)	-0.27 (0.48)	-0.03 (0.41)	0.02 (0.41)	-0.06 (0.42)
$R^2$	0.64	0.75	0.67	0.71	0.71	0.64
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Wild Clust. Boot. (p-value)	0.570	0.149	0.650	0.945	0.965	0.907

Panel B. 1940 MB Branch Survey						
Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shafiq (5)	Turnout (6)
# Muslim Brotherhood Branches in 1940	-0.40* (0.23)	-0.33 (0.26)	0.27 (0.27)	-0.65* (0.33)	0.67* (0.33)	0.36 (0.26)
$R^2$	0.64	0.75	0.67	0.72	0.71	0.65
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Wild Clust. Boot. (p-value)	0.132	0.210	0.375	0.056	0.053	0.250

*Notes:* This table shows the coefficients of total number of historical Muslim Brotherhood Branch from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included for all estimations.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ . Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

variable instead of distance to missions stations. My outcomes of interest are electoral results of first- and second-round elections, as before. I present the results in table 3. In panel (a) of this table that utilizes the 1937 branch data, I do not find any significant association between initial Muslim Brotherhood presence and contemporary electoral support for Morsi, the Muslim Brotherhood presidential candidate. The estimates using the 1940 branch data for Morsi support are negative yet statistically nonsignificant at the 5 percent level. In addition, estimates from the 1940 branch data rule out any positive associations between initial Muslim Brotherhood activity and contemporary Muslim Brotherhood support.

**Heterogeneity by Competition Between the Missions and the Brotherhood.** After its establishment, the Muslim Brotherhood competed with Christian missionaries to provide welfare institutions. Did this competition from the Brotherhood effectively weaken the role of missions in contemporary support for Islamist movements? To examine this, I estimate the following OLS regression:

$$y_{gd} = \alpha + \beta_1 \text{Mission in 5km}_{gd} + \beta_2 \# \text{ of MB nearby}_{gd} + \beta_3 (\text{Mission in 5km} \times \# \text{ of MB nearby})_{gd} + \mathbf{X}_{gd}\delta + \gamma_g + \epsilon_{gd}, \quad (2)$$

where  $y_{gd}$  is the electoral outcomes of district d in governorate g. For the sake of interpretability, I measure the exposure to a historical mission station by assigning an indicator variable that is 1 for all districts located within 5km of a mission station.  $\# \text{ of MB nearby}$  is the number of historical Muslim Brotherhood branches located within a 10 km radius of the closest mission station to a district in year t, measuring the severity of competition that a specific mission station experienced. The remaining part of the specification stays the same as in equation 1. The coefficient of interest is  $\beta_3$ , which captures the relationship between historical competition from the Brotherhood and

contemporary Islamist support.

**Table 4:** Heterogeneity by Competition Between the Missions and the Brotherhood

Outcome:	Morsi R1 (1)	Islamist R1 (2)	Morsi R2 (3)	Morsi R1 (4)	Islamist R1 (5)	Morsi R2 (6)
Mission in 5km	-5.95*** (1.21)	-6.20*** (1.05)	-5.43*** (1.11)	-5.89*** (1.26)	-6.19*** (1.05)	-5.57*** (1.09)
# MB nearby mission station (1937)	0.02 (0.22)	-0.10 (0.35)	-0.11 (0.33)			
Mission in 5km x # MB nearby mission station (1937)	-0.20 (0.52)	-0.64 (0.50)	-0.57 (0.41)			
# MB nearby mission station (1940)				-0.19 (0.25)	-0.14 (0.21)	-0.02 (0.22)
Mission in 5km x # MB nearby mission station (1940)				-0.22 (0.48)	-0.62 (0.48)	-0.48 (0.40)
$R^2$	0.67	0.78	0.74	0.68	0.78	0.74
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.847	0.266	0.267	0.765	0.218	0.292

*Notes:* This table shows the  $\beta_k$  coefficients from equation 2. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Survey years used to measure the MB presence are shown in parentheses. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included for all estimations.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ . Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

Table 4 presents the results on the heterogeneity by competition between the missions and the Muslim Brotherhood. For each outcome, the estimates on the role of competition, if anything, are negative and statistically nonsignificant. Therefore, I fail to find any evidence that the initial resistance and competition from the Brotherhood at the local level effectively weakened the negative association between exposure to historical mission stations and contemporary Islamist support.

## 5 Robustness Checks

I perform several robustness checks in this section and present their results in the appendix.

**Observables vs. Unobservables.** To assess the bias due to unobservables, I follow Oster (2019) and calculate the  $\delta$  to check the sensitivity of my treatment coefficients to

adding observables as controls. Delta provides information on how large the bias due to unobservables must be, relative to added observables, to explain away the effect of the treatment. A value of  $\delta = 1$  suggests the observables are at least as important as the unobservables and suggested as an appropriate value to assess the extent of bias (Oster, 2019). I report  $\delta$  values for my primary outcomes in appendix figure A.9. For the first round election outcomes, my  $\delta$  values are above 1 for different R max cutoffs; thus, it is unlikely that unobservables can explain away the main effects. Although the  $\delta$  value for second round Morsi support drops below 1 for R max value larger than 0.90, it is unlikely that the regression model can fully explain the outcome; therefore, the hypothetical R max value may be smaller than 1 due to measurement error (Oster, 2019).

**Data on Christian Missions and measuring their exposure.** In the main analysis, I use the Roome (1925) survey utilized by Nunn (2010) as my primary source of information for Christian mission stations. To check the sensitivity of my findings, I also conduct my main analysis using mission station data from Cagé and Rueda (2016) using the information from Beach (1903) and Béthune (1889). Panel (a) of appendix table A.1 presents results using only Cagé and Rueda (2016) dataset, and panel (b) of this table presents results using information from two datasets combined. My main findings remain similar, yet the estimates are smaller in magnitude for the Cage and Rueda dataset, which consists of fewer mission stations and from an earlier period. A recent study by Jedwab et al. (2019) documented that these previously mentioned surveys may include measurement errors in locations of mission stations due to missing information. They ultimately argue that reported mission stations in those surveys are positively selected; therefore, they could introduce an upward bias to positive estimates of historical missionary exposure, analyzing the Ghanaian context. However, it is worth noting that there are significant differences in the Egyptian context. Colonial Egypt was a dominantly Muslim country; therefore, missionaries had limited financial and human resources to enlarge their missionary activities outside their primary stations. Therefore,

their argument is unlikely to apply in the context of Egypt. Last, I show that my main takeaways remain similar when using different functional forms for exposure to mission stations, as seen in the appendix tables [A.2](#) and [A.3](#). Those include minimum distance to mission station by 50 km, or an indicator variable takes 1 if a district is located within 5, 10, or 15 km of a mission station to assess their exposure to missions stations. Finally, in Appendix Figure [A.10](#), I drop a single governorate at a time from the sample to verify that outlier regions do not drive the estimates, and the results remain robust.

**Bad Controls.** I do not include any contemporary controls in the main analysis to avoid bad controls problems. If any contemporary characteristics of districts are also an outcome of exposure to historical Christian missionaries, this will introduce bias to our estimates ([Angrist and Pischke, 2008](#)). However, one may be worried about the role of temporal economic distress, the share of Christian population, and the initial Islamist support on political behavior of districts. Therefore, I include relevant post-treatment controls, including historical Muslim Brotherhood presence, the unemployment rate in 2006, and the share of Christian population in 2006. My results remain robust, as seen in appendix table [A.4](#).

**Conley Standard Errors.** Another worry in a regression that uses spatial variation as an explanatory variable is the spatial autocorrelation between dependent and independent variables, introducing inference problems. To alleviate this concern, I report [Conley \(1999\)](#) standard errors in appendix table 9 to account for spatial autocorrelation, and the significance of my main findings remains the same.

## 6 Mechanisms

This section examines the mechanisms behind the robust negative association between exposure to historical Christian missionaries and contemporary Islamist support illustrated in previous sections. The mediators analyzed in this section originated from

the economics and political science literature related to the effects of Christian missionaries and the literature on the Islamist political advantage.

**Education.** The long-term positive effect of Christian missionaries on contemporary educational outcomes is documented in several contexts, from Latin America to Africa and India (Valencia Caicedo, 2019; Waldinger, 2017; Nunn et al., 2014). On the other hand, Masoud (2014) argues that the Muslim Brotherhood attracted poor and uneducated voters through its social welfare provision. Taken together, previous literature suggests that education is one of the most prominent factors that can mediate the link between historical Christian missionary exposure and contemporary electoral outcomes.

I start my analysis by examining whether there exists an association between historical missionary exposure and contemporary educational outcomes in Egypt. Specifically, I estimate the OLS regression in equation 1 using illiteracy rates or population share with no education in 2006 as outcome variables. Columns 1 and 2 of Table 5 confirm that there is a statistically significant negative (positive) association between proximity (distance) to historical Christian missionaries and contemporary illiteracy rate and population share with no education. This finding is in line with studies examining the effect of Christian missionaries on contemporary education in many different contexts (Valencia Caicedo, 2019; Waldinger, 2017; Nunn et al., 2014; Calvi et al., 2020). Table 6 further assesses the extent to which the educational differences explain the link between historical mission exposure and Islamist support by controlling for the educational characteristics of districts. Column 1 of Table 6 presents the baseline estimate as a benchmark. The estimates drop substantially when educational controls are added in column 2 of Table 6 yet remain statistically significant. These findings suggest that education was an essential factor mediating the negative link between historical missionary exposure and Islamist support.

**Urbanization.** Unlike educational consequences, the missions literature has mixed

**Table 5: Education and Urbanization as Mechanisms**

Outcome:	Illiterate (1)	No Education (2)	Urban. Rate (3)	Population (4)	Markaz (5)	Christian Share (6)
Distance to Mission Station (log)	2.67** (0.97)	3.23*** (1.06)	-10.23*** (2.53)	-0.15** (0.06)	0.13*** (0.03)	-0.00 (0.00)
R <sup>2</sup>	0.58	0.60	0.63	0.63	0.65	0.54
Observations	323	323	323	323	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.012	0.004	0.002	0.043	0.001	0.282

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are education, urbanization and religion related outcomes and described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

evidence on the role of missionary exposure in local economic development (Bai and Kung, 2015; Castelló-Climent et al., 2018; Jedwab et al., 2019; Valencia Caicedo, 2019).

Next, I test whether urbanization is an underlying mechanism behind the link between missionary exposure and contemporary electoral outcomes. Specifically, I estimate the OLS regression in equation 1 using urbanization rate, logged population, and an indicator for a “markaz” (rural) district. Columns 3-5 of table 5 show a positive (negative) association between proximity (distance) to mission stations and several outcomes related to urbanization. Next, I add urbanization controls into my regression and present results in column 2 of Table 6 for my main electoral outcomes. The estimates drop substantially for both election rounds, although not entirely for the Islamist support in the first round and Morsi support in the second round. Last, I include education and urbanization controls jointly into my regression together. The estimates remain similar to adding them separately since education and urbanization are strongly correlated.

**Religious Conversion.** Last, I check whether religious conversion is a mechanism behind the negative association between exposure to historical Christian missions and contemporary Islamist support. Several historical studies qualitatively highlight the

**Table 6: Christian Missions and Contemporary Politics: Mechanisms**

Panel A. Morsi Round One Vote Share				
Outcome:	Morsi R1 Vote Share			
	(1)	(2)	(3)	(4)
Distance to Mission Station (log)	2.30*** (0.62)	0.96** (0.38)	0.79 (0.52)	0.39 (0.42)
R <sup>2</sup>	0.67	0.77	0.74	0.78
Observations	325	323	323	323
Clusters	27	27	27	27
Governorate FE	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓
Additional Controls	Baseline	Education	Urbanization	Educ. + Urban.
Wild Clust. Boot. (p-value)	0.000	0.022	0.155	0.356
Panel B. Islamists Round One Vote Share				
Outcome:	Islamist R1 Vote Share			
	(1)	(2)	(3)	(4)
Distance to Mission Station (log)	3.02*** (0.60)	2.00*** (0.55)	1.93*** (0.52)	1.61*** (0.53)
R <sup>2</sup>	0.78	0.81	0.80	0.82
Observations	325	323	323	323
Clusters	27	27	27	27
Governorate FE	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓
Additional Controls	Baseline	Education	Urbanization	Educ. + Urban.
Wild Clust. Boot. (p-value)	0.000	0.010	0.007	0.028
Panel C. Morsi Round Two Vote Share				
Outcome:	Morsi R2 Vote Share			
	(1)	(2)	(3)	(4)
Distance to Mission Station (log)	2.48*** (0.61)	1.57** (0.61)	1.79** (0.66)	1.46** (0.66)
R <sup>2</sup>	0.73	0.76	0.75	0.77
Observations	325	323	323	323
Clusters	27	27	27	27
Governorate FE	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓
Additional Controls	Baseline	Education	Urbanization	Educ. + Urban.
Wild Clust. Boot. (p-value)	0.002	0.048	0.036	0.082

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications. Additionally, I include educational, urbanization and religion related variables used in table 5 consecutively to my regression as controls.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

failure of Christian missionaries in converting Muslims (Baron, 2014; Sharkey, 2013a,b; Sisman, 2015). I test this argument by running OLS regression in equation 1 using the contemporary share of the Christian population in 2006 as an outcome. I find a precisely estimated zero relation between exposure to historical missions and current Christian population share, as seen in column 6 of Table 5. This rules out that religious conversion



is a mechanism behind my main findings. Although it is a post-treatment measure of Christianity, it may also be suggestive that mission stations were not selected into districts with a higher share of the Christian population conditional on governorate fixed effects.

## 7 Conclusion

In this paper, I argue that exposure to historical Christian missions may have repercussions in contemporary politics beyond the previously documented evidence on democracy, political participation, and nationalist backlash ([Woodberry, 2012](#); [Lankina and Getachew, 2012](#); [Owolabi, 2015](#); [Wantchekon et al., 2015](#); [Cagé and Rueda, 2016](#); [Henn et al., 2021](#); [Mattingly and Chen, 2021](#)). Using geo-coded missionary station and the 2012 Egyptian presidential election data, I document a negative (positive) association between proximity (distance) to historical mission stations and Islamist candidates' electoral support in 2012. On the other hand, I fail to find any relationship between the historical Muslim Brotherhood presence and the contemporary electoral support for Muslim Brotherhood in the 2012 presidential election. Analysis of the underlying mechanisms suggests that my results are partly driven by increased education and urbanization. Moreover, I find that religious conversion was not a mediator on the link between historical Christian missionary presence and contemporary Islamist support. My findings indicate that although missionaries failed to convert Muslims into Christianity in colonial Egypt, they may have long-term consequences in contemporary Islamist support through their investments in educational, welfare, and economic activities.

Although Egypt is an interesting case study for the role of Christian missionaries on contemporary Islamist support, my analysis could be expanded into a multi-country analysis design by including other African Muslim majority countries where

missionaries were active. The alternative mechanisms or explanations of my main findings also demand further investigation due to data limitations in this paper and left for future research.

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## 8 Online Appendix - Additional Tables

**Table A.1:** Access to Islamic Schools and Electoral Outcomes

Panel A. Mission Locations Cage-Rueda Dataset

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shafiq (5)	Turnout (6)
Distance to Mission Station (log)	1.29* (0.65)	1.36* (0.77)	-1.74** (0.69)	1.76** (0.68)	-1.72** (0.69)	-1.31* (0.69)
$R^2$	0.65	0.76	0.68	0.72	0.71	0.65
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.072	0.116	0.032	0.042	0.0490	0.093

Panel B. Any Dataset

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shafiq (5)	Turnout (6)
Distance to Mission Station (log)	1.99*** (0.56)	2.58*** (0.62)	-2.33*** (0.69)	2.39*** (0.58)	-2.18*** (0.62)	-1.57** (0.59)
$R^2$	0.66	0.77	0.69	0.73	0.72	0.66
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.001	0.001	0.002	0.002	0.006	0.018

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Panel (a) presents results using only Cage and Rueda dataset, and panel (b) of this table presents results using information from both Nunn and, Cage and Rueda datasets combined. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest cost, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.



**Table A.2: Access to Islamic Schools and Electoral Outcomes**

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shahiq (5)	Turnout (6)
Mission in 5km	-6.25*** (1.23)	-7.17*** (1.10)	3.83* (1.97)	-6.30*** (1.11)	5.82*** (1.24)	1.75 (1.76)
R <sup>2</sup>	0.67	0.78	0.68	0.73	0.73	0.65
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.000	0.000	0.084	0.001	0.001	0.354
Panel A. Morsi Round One Vote Share						

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shahiq (5)	Turnout (6)
Mission in 10km	-2.21 (1.47)	-4.51*** (1.43)	1.18 (1.78)	-3.09** (1.37)	2.76* (1.38)	0.14 (1.50)
R <sup>2</sup>	0.65	0.77	0.67	0.72	0.71	0.64
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.148	0.008	0.546	0.037	0.071	0.937
Panel A. Morsi Round One Vote Share						

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shahiq (5)	Turnout (6)
Mission in 15km	-2.20* (1.18)	-4.57*** (1.08)	0.47 (1.98)	-2.85** (1.25)	2.56* (1.25)	-0.05 (1.77)
R <sup>2</sup>	0.65	0.76	0.67	0.72	0.71	0.64
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.0843	0.002	0.858	0.048	0.074	0.982

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1 for different measures of historical missionary exposure. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest cost, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

**Table A.3: Access to Islamic Schools and Electoral Outcomes**

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shahiq (5)	Turnout (6)
Distance to Mission Station, 50km	2.63** (0.98)	2.97** (1.41)	-4.06*** (1.27)	2.81* (1.37)	-2.57* (1.34)	-3.81*** (1.18)
R <sup>2</sup>	0.65	0.76	0.69	0.72	0.71	0.67
Observations	325	325	325	325	325	325
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.029	0.116	0.041	0.12	0.135	0.040

Notes: This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

**Table A.4: Christian Missions and Contemporary Politics: Contemporary Controls**

Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Islamist (5)	Turnout (6)
Distance to Mission Station (log)	1.53*** (0.53)	2.40*** (0.58)	-1.15 (0.76)	2.05*** (0.64)	-1.84*** (0.65)	-0.56 (0.67)
R <sup>2</sup>	0.71	0.80	0.73	0.76	0.75	0.69
Observations	323	323	323	323	323	323
Clusters	27	27	27	27	27	27
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Contemporary Controls	✓	✓	✓	✓	✓	✓
Wild Clust. Boot. (p-value)	0.004	0.003	0.194	0.016	0.035	0.459

Notes: This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Additionally, I include several contemporary controls such as historical Muslim Brotherhood presence, the unemployment rate in 2006, and the share of Christian population in 2006. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Robust standard errors clustered at the governorate level. Wild Cluster Bootstrapped p-Values are in additional information section.

**Table A.5: Christian Missions and Contemporary Politics: Conley SE**

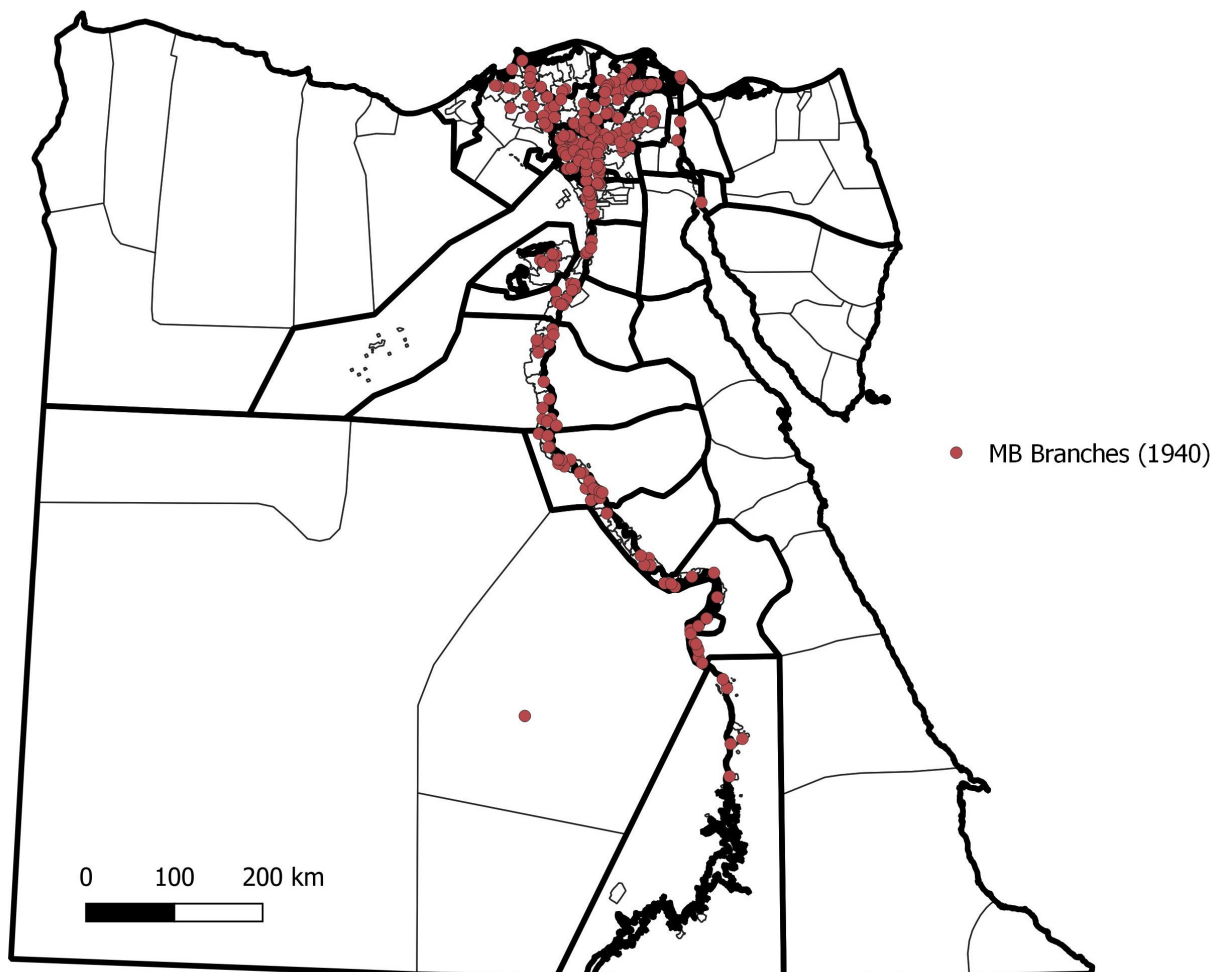
Outcome:	Round One			Round Two		
	Morsi (1)	Islamist (2)	Turnout (3)	Morsi (4)	Shahiq (5)	Turnout (6)
Distance to Mission Station (log)	2.45*** (0.69)	3.06*** (0.59)	-2.09*** (0.62)	2.52*** (0.52)	-2.30*** (0.56)	-1.26** (0.57)
$R^2$	0.32	0.42	0.28	0.35	0.33	0.18
Observations	325	325	325	325	325	325
Governorate FE	✓	✓	✓	✓	✓	✓
Historical and Geo Controls	✓	✓	✓	✓	✓	✓
Conley SE	✓	✓	✓	✓	✓	✓

*Notes:* This table shows the coefficients of logged distance to the nearest mission stations from equation 1. The unit of observation is a district. Dependent variables are electoral outcomes described in more details in the text. Geographic controls include historical population density, crop suitability, rainfall, sickle cell, the logarithm of the distance to nearest coast, area, altitude, ruggedness, whether the district is located within 10 km of the Nile river, railroad or pre-colonial explorer route, latitude, longitude, and their interactions. Governorate fixed effects are also included in all specifications.

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01. Conley standard errors are reported for each estimation using 100 km as a cutoff.

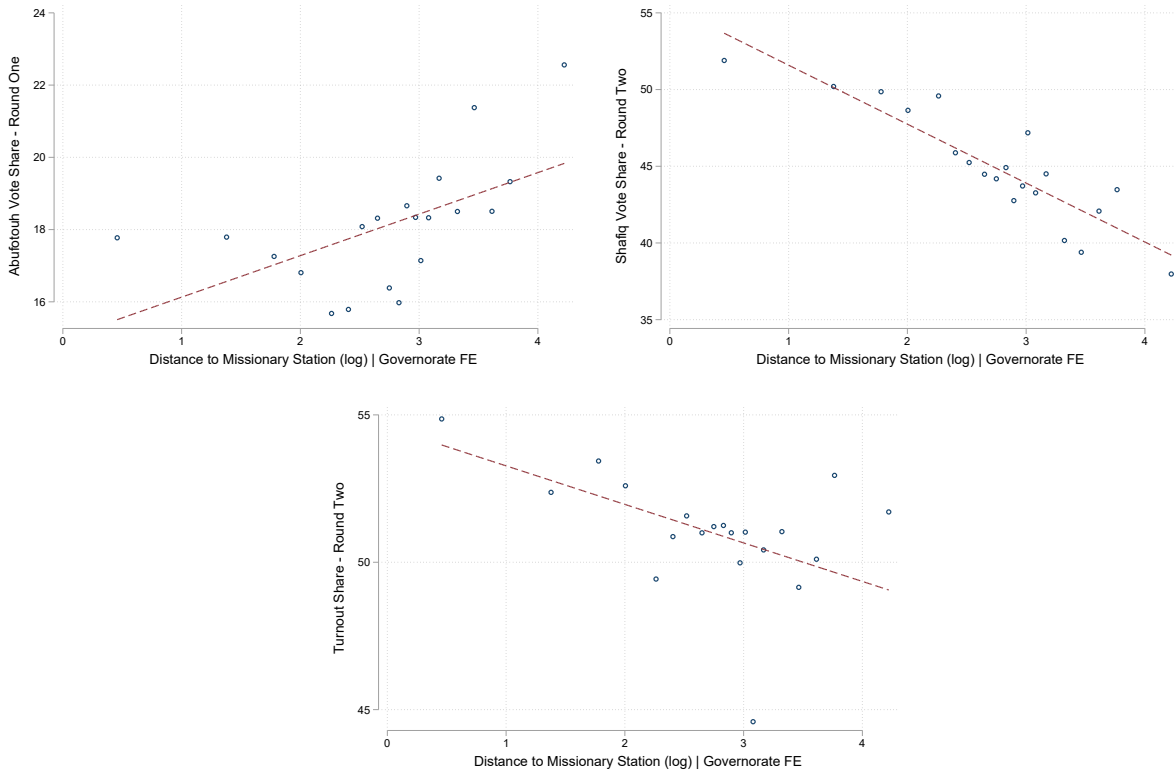
## 9 Online Appendix - Additional Figures

Figure A.1: Locations of Muslim Brotherhood Branches in 1940



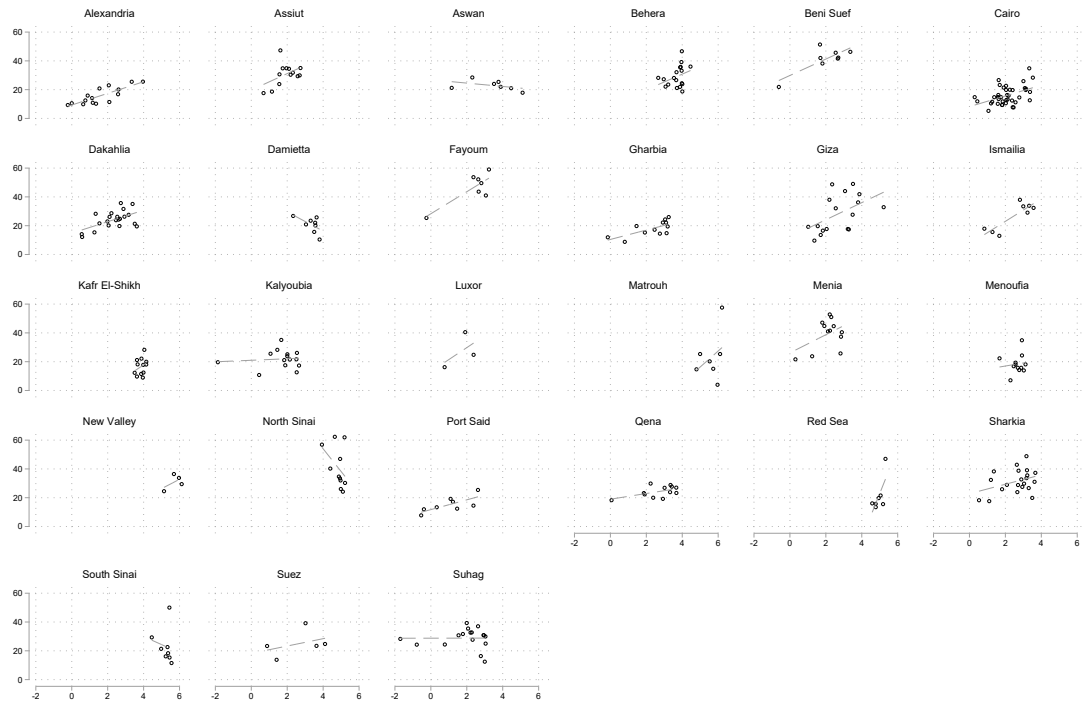
*Notes:* The map shows the location of Muslim Brotherhood Branches in 1937, along with district and governorate boundaries of Egypt taken from [Brooke and Ketchley \(2018\)](#).

**Figure A.2: Binscatter of Electoral Outcomes on Missionary Distance (log)**



*Notes:* This graph plots binned scatter plot of electoral outcomes with fitted line versus logged distance to the nearest mission station conditional on governorate fixed effects. Outcomes are Aboul Fotouh vote share in round one in Panel (a), Shafiq vote share in round two in Panel (b), turnout rate in round one in Panel (c). The observations are binned into 20 equal-sized bins.

**Figure A.3:** Bivariate relationship between Morsi round 1 vote share and logged distance to nearest mission station



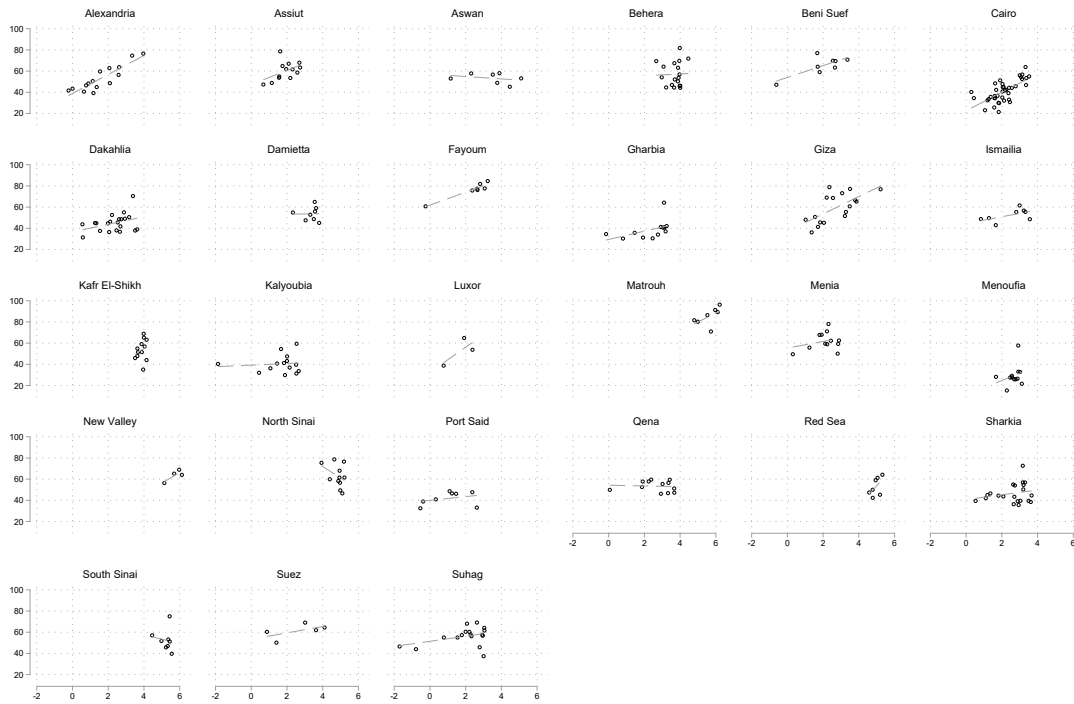
*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

**Figure A.4:** Bivariate relationship between Islamists combined round 1 vote share and logged distance to nearest mission station



*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

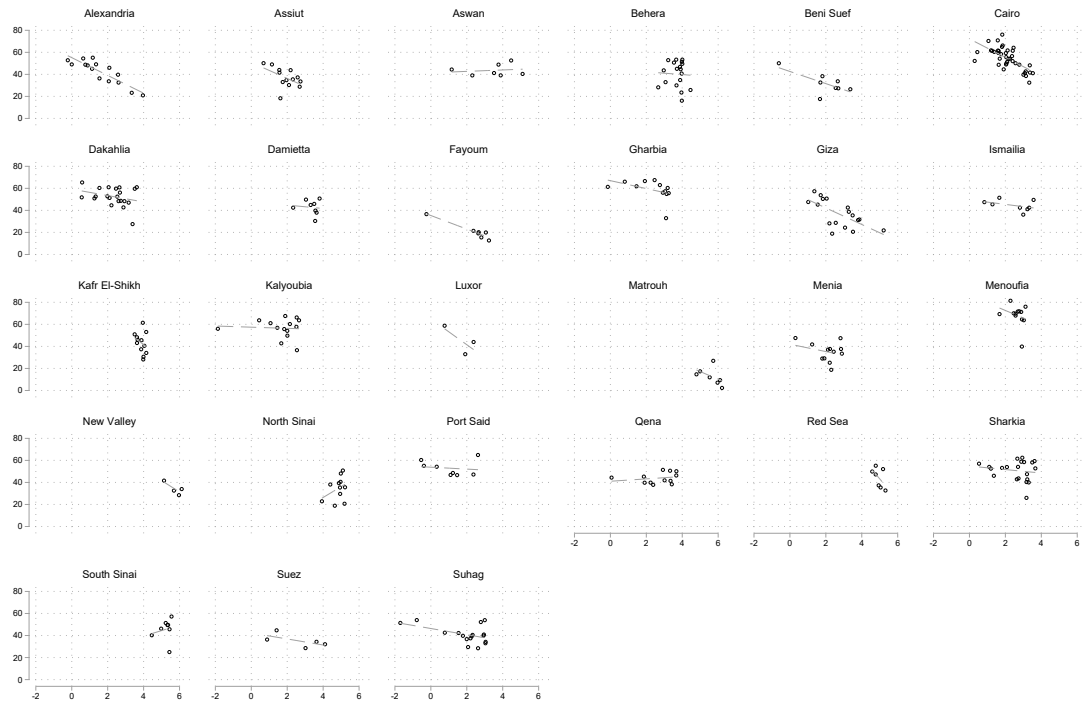
**Figure A.5:** Bivariate relationship between Morsi round 2 vote share and logged distance to nearest mission station



*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

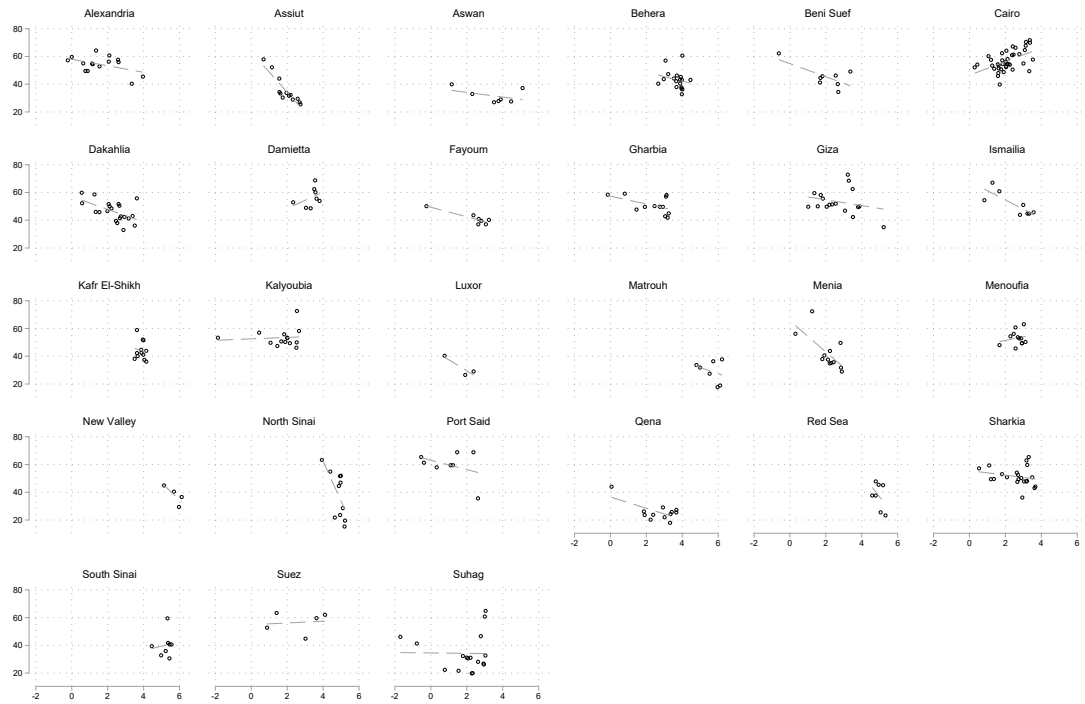


**Figure A.6:** Bivariate relationship between Shafiq round 2 vote share and logged distance to nearest mission station



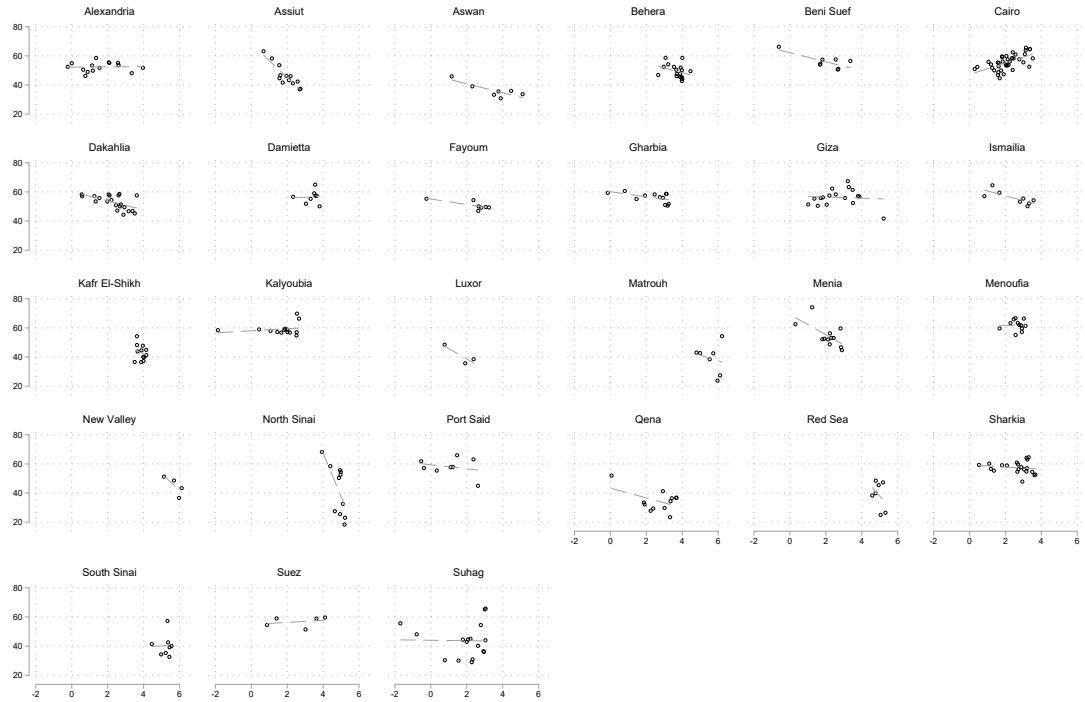
*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

**Figure A.7:** Bivariate relationship between round 1 turnout rate and logged distance to nearest mission station



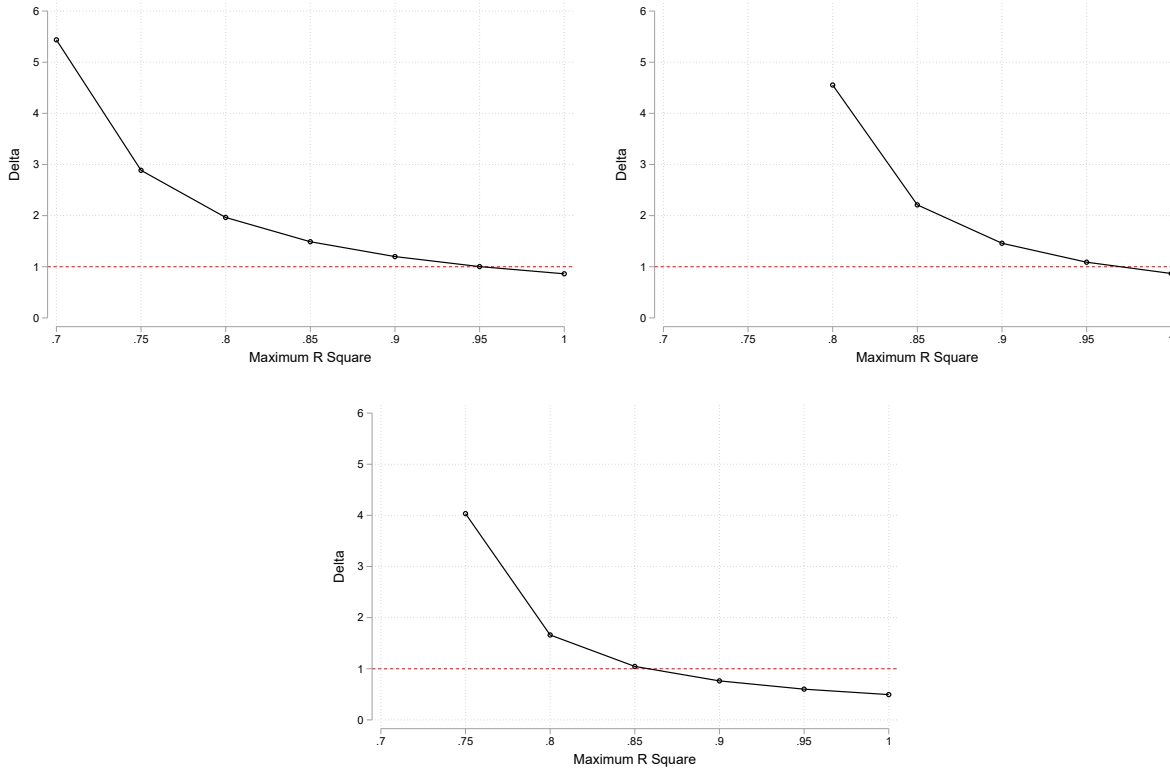
*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

**Figure A.8:** Bivariate relationship between round 2 turnout rate and logged distance to nearest mission station



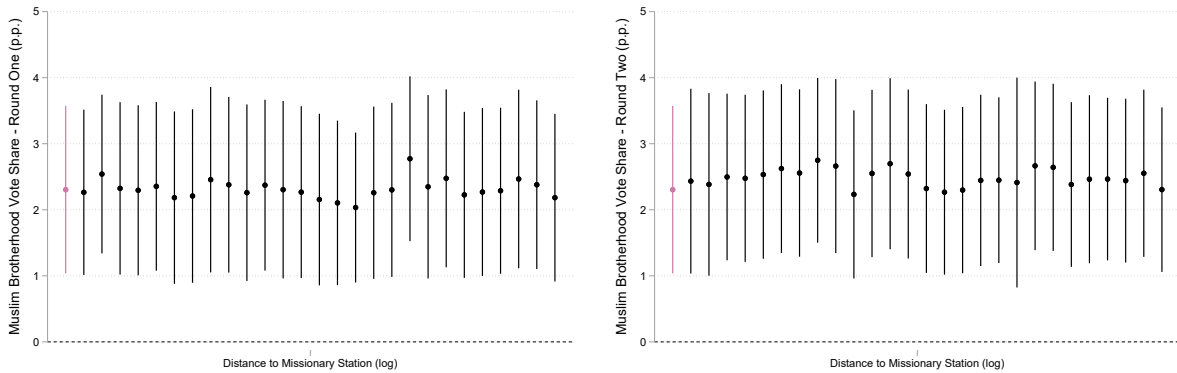
*Notes:* This figure plots the unconditional bivariate relationship between selected electoral outcome and logged distance to nearest mission station for each governorate.

**Figure A.9: Selection on Unobservables**



*Notes:* To assess the bias due to unobservables, this paper calculate the  $\delta$  following [Oster \(2019\)](#) to check the sensitivity of my treatment coefficients to adding observables as controls.  $\delta$  provides information on how large the bias due to unobservables must be, relative to added observables, to explain away the effect of the treatment. A value of  $\delta = 1$  suggests the observables are at least as important as the unobservables and suggested as an appropriate value to assess the extent of bias ([Oster, 2019](#)). The hypothetical R max value may be smaller than 1 due to measurement error ([Oster, 2019](#)). I implement this approach using the *psacalc* Stata module.

**Figure A.10: Leave One Governorate Out at a Time**



*Notes:* This figure presents the estimates of  $\beta$  in equation 1 leaving one governorate out at a time. See Table 1 for details related to specification.