

Precolonial Elites and Colonial Redistribution of Political Power

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Online Appendix

A1: GEOGRAPHIC ASSIGNMENT OF MEMBERS OF PARLIAMENT

The primary source of our MP dataset, Subhi (1947), records the constituency for most MPs. The geographic unit for parliamentary constituencies for *elected* MPs changed between the precolonial and colonial periods.¹ According to the 1866 law that governed parliamentary elections in the precolonial period (1866–1882), constituencies were at the district level in rural provinces, where every district was represented by one MP, and at the province level in urban provinces, where every province was represented by a specified number of MPs: three for Cairo, two for Alexandria, and one for Damietta (Subhi 1947, Volume 5, p. 84).² According to the 1883 law that governed parliamentary elections throughout most of the colonial period (1883–1913), constituencies of elected MPs in both the lower and upper houses became defined at the province level in both rural and urban provinces, with a specified number of MPs per province.³ Appointed MPs in the colonial-era upper house (1883–1913) did not represent constituencies (Subhi 1947, Volume 5, pp. 280, 283), so they have missing geographic assignment in Subhi (1947). The 1913 law that governed the last colonial-era parliament in 1913–1923 brought back the unicameral system. It kept the representation for elected MPs at the province level, while increasing the number of MPs per province (Subhi 1947, Volume 5, p. 393). Appointed MPs were still not tied to constituencies. As a result, the unit of geographic assignment (village, district, province, or missing) varies in Subhi (1947) across parliamentary sessions, both across MPs and for the same MP across sessions.

Appendix Table A1.1 shows the extent to which the level of geographic assignment varies for the same MP across sessions in Subhi (1947). For the vast majority of MPs, the level of geographic assignment remained the same over time (see the diagonal entries): Out of 771 unique MPs (1,102 MP-session observations), 721 MPs (942 observations) are assigned at the same geographic level in every session in which they appear: 270 MPs (293 observations) are assigned at the village level, 60 MPs (61 observations) at the district level, 291 MPs (425 observations) at the province level, and 100 MPs (163 observations) have missing constituency in every session. The remaining 50 MPs (160 observations) are assigned to different geographic units across sessions, because of changes in the level of aggregation that resulted from the aforementioned legal changes in the definition of constituencies.⁴

¹There are three administrative levels of geographic units in the Egyptian population censuses. These are (from lowest to highest): village (or quarter in urban provinces), district, province.

²Subhi (1947) often assigns MPs in rural provinces during the precolonial period to more fine-grained geographic units: villages instead of districts.

³The law specified one MP per province in the upper house, except for Alexandria, Port Sa‘id, Damietta, Rosetta, Isma‘iliya, and ‘Arish, that were collectively represented by one MP, and a specified number of MPs per province in the lower house, except for Isma‘iliya and ‘Arish that were collectively represented by one MP, and Port Sa‘id and Suez that were collectively represented by one MP.

⁴Out of these 50 MPs, (a) 11 MPs (39 observations) were assigned to a missing constituency in at least one

Apart from changes in the level of aggregation of constituencies, switching constituencies in the sense of moving from one district to another in 1866–1882, or from one province to another in 1882–1923, was extremely rare. Only 3 MPs (8 observations) switched constituencies (districts) within the same province, so they do not alter the crop productivity assignment which is measured at the province level, and none of the MPs switched provinces.

TABLE A1.1. Level of Aggregation of Geographic Units of Members of Parliament May Vary for the Same MP Across Sessions in Subhi (1947)

		MP's Highest Level of Geographic Assignment				Total
		Village	District	Province	Missing	
Lowest Level	Village	270 (293)	1 (2)	32 (103)	1 (3)	304 (401)
	District	0 (0)	60 (61)	6 (16)	1 (4)	67 (81)
	Province	0 (0)	0 (0)	291 (425)	9 (32)	300 (457)
	Missing	0 (0)	0 (0)	0 (0)	100 (163)	100 (163)
	Total	270 (293)	61 (63)	329 (544)	111 (202)	771 (1102)

Notes: The numbers in the table refer to the number of unique MPs under each category, whereas the numbers in parentheses refer to the number of MP-session observations.

We implemented a two-step procedure to impute the geographic assignment of MPs. Step A of the imputation procedure is confined to MPs who served in more than one parliamentary session and whose geographic assignment changed at least once. In this step, we assigned the earliest, most detailed, constituency of the MP to all other observations of that MP, i.e., earlier or later parliamentary sessions in which that MP served. This step reduces the number of observations with missing constituency for a given MP. It also ensures that each MP is assigned to the same constituency in all sessions in which that MP served. Step B is confined to MPs who meet four conditions: (a) they have missing constituency in every session, (b) they belong to a “parliamentary dynasty,” i.e., they share their family name with at least one other MP in the dataset, (c) there is at least one other MP from that same dynasty who has a non-missing constituency, and (d) *all* other MPs with non-missing constituency from that dynasty are assigned to the same province.⁵ For these MPs, we assigned them to the province to which all the other members of their dynasty belong. Table A1.2 shows the distribution of the level of geographic assignment of MPs after the imputation procedure. Step A affected 52 MPs whose geographic assignment changed across sessions, for a total of 90 MP-session observations. Step B resulted in assigning 15 MPs (27 observations), who had missing location after Step A, to a province. As a robustness check, we dropped all 117 MP-session observations whose geographic assignment was imputed after Steps A and B (see Appendix A4).

session, and to a non-missing constituency (village, district, or province) in at least one other session, and (b) 39 MPs (121 observations) were assigned to a more aggregated constituency (district, province) in at least one session, and to a less aggregated constituency (village, district) that is located within the same aggregate constituency (district, province) in at least one other session.

⁵The fourth condition mitigates the issue of common family names that may be shared by more than one MP, although they may not belong to the same family in reality (e.g., Mohamed, Ahmed, Mahmoud, Mostafa, Hassan). Because these common family names are likely to be held by MPs from different provinces, this condition ensures that they are *not* used in Step B of our imputation procedure.

TABLE A1.2. Level of Geographic Assignment of Members of Parliament Before and After Imputation

Level of Geographic Assignment	Original	STEP A	STEP B
Village	339	304 (401)	304 (401)
District	77	67 (81)	67 (81)
Province	502	300 (457)	315 (484)
Missing	184	100 (163)	85 (136)
Total	1102	771 (1102)	771 (1102)

Notes: The numbers in the column titled “Original” refers to the number of MP-session observations. The numbers in the columns titled “STEP A” and “STEP B” refer to the number of unique MPs under each category, whereas the numbers in parentheses refer to the number of MP-session observations.

A2: SOCIAL CLASS CODING OF MEMBERS OF PARLIAMENT

We assign MPs to three social classes that are well-documented in social histories of 19th and early 20th century Egypt: the landed elite (LE), the rural middle class (RMC), and the urban middle class (Cuno 1992; Helal 1999; Abbas and El-Dessouky 2011). We classify MPs into one of these social classes using three variables: occupation, honorific title, and the rural/urban status of the constituency. Because we are interested in measuring the social class *origin* of each MP, we assigned to each MP the *initial* occupation, honorific title, and constituency as recorded in the parliamentary session in which the MP *first* served.

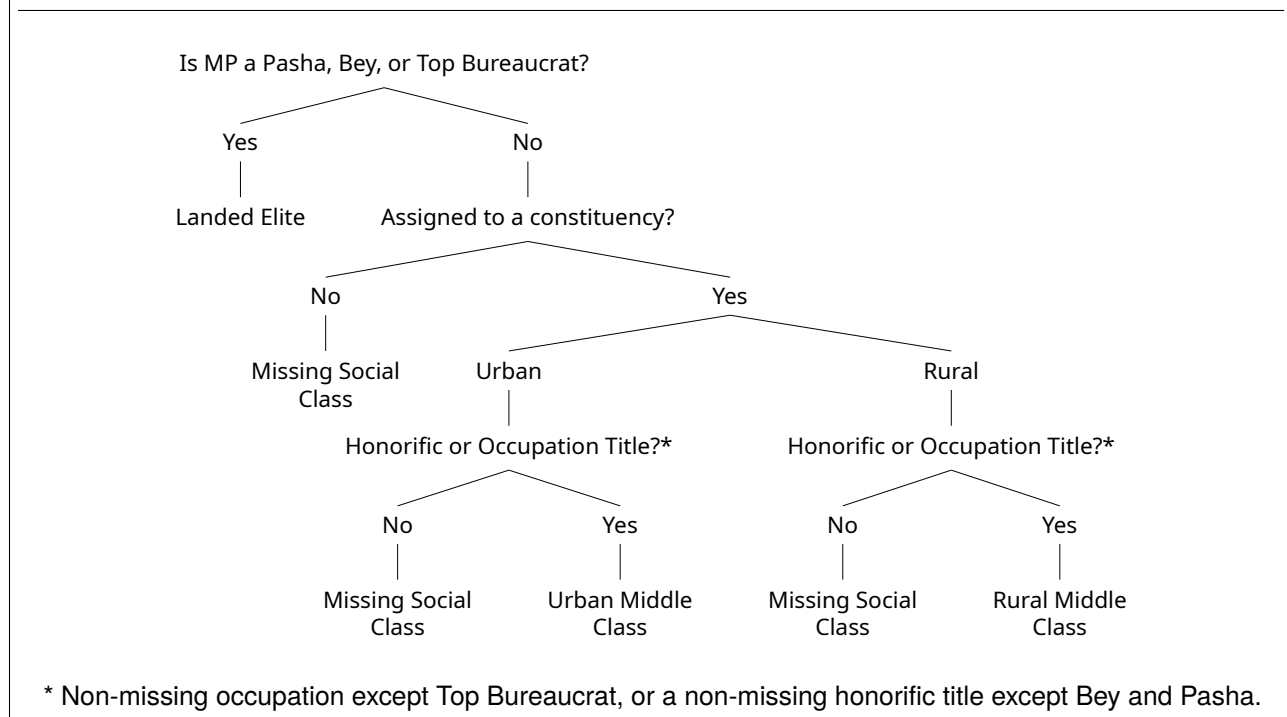
First, we assigned to each MP the occupational title in the first session with non-missing occupation in which the MP first served.⁶ Across parliamentary sessions, 25 MPs changed their occupational title in at least one session, for a total of 37 MP-Session observations. These 37 MP-session observations are distributed as follows: (a) 32 observations shifted from “Village Headman” to “Notable,” (b) 3 observations shifted from “Business” to “Notable,” (c) 1 observation shifted from “Village Headman” to “Government Administrator,” and (d) 1 observation shifted from “Government Administrator” to “Notable.” Since the occupational title “Notable” is opaque (see the discussion at the end of this section), the 35 observations where an MP switched to a “Notable” may not indicate a real occupational switch. As a robustness check in Appendix A4, we dropped all 37 MP-session observations whose occupational title is different from the MP’s initial occupation, and the results in Table 1 hold.

Second, we assigned to each MP the honorific title in the first session with non-missing honorific title in which the MP first served.⁷ The honorific titles of 86 MPs changed in at least one session, totalling 148 MP-Session observations. The most frequent changes are: (a) from Effendi to Bey (49), (b) from Sheikh to Bey (31 observations), (c) from Sheikh to Effendi (26 observations), (d) from Bey to Pasha (21 observations). These changes in honorific titles signal upward social class mobility, ranked as follows from lowest to highest status: Sheikh, Effendi, Bey, Pasha. As a robustness check in Appendix A4, we dropped all 148 MP-session observations whose honorific title is different from the MP’s initial title, and the results in Table 1 hold.

Third, we described the procedure that we followed to assign MPs to constituencies in Appendix A1. The final distribution of the level of geographic assignment is shown in Appendix Table A1.2 (STEP B). We then defined urban constituencies according to the 1882 census administrative division: Cairo,

⁶53 MPs had a missing occupation in at least one session for a total of 77 MP-session observations, and were assigned a non-missing occupational title from another session.

⁷7 MPs had a missing honorific title in at least one session for a total of 9 MP-session observations, and were assigned a non-missing honorific title from another session.

FIGURE A2.1. Decision Tree for Social Class Coding

Alexandria, Suez, Rosetta, ‘Arish, Qusayr, and Damietta. Rural constituencies consist of all provinces in the Nile Delta and Valley: al-Daqahliya, al-Sharqiya, al-Gharbiya, al-Menoufiya, al-Buhayra, Giza, Beni Souaif, Fayum, Minya, Asyut, Girga, Qena, and Isna. There are 85 MPs (136 observations) who are not assigned to a constituency.

Having constructed the initial occupation, title, and the urban/rural status of the constituency of each MP, we then constructed the social class measure as follows (see Figure A2.1): We classified an MP as LE if they were top bureaucrats, or held the honorific titles of Pasha or Bey. We classified an MP as RMC if (a) they belonged to a rural constituency, **and** (b) had a non-missing occupational title (except top bureaucrat) or a non-missing honorific title (except Bey and Pasha). Similarly, we classified an MP as Urban Middle Class if (a) they belonged to an urban constituency, **and** (b) had a non-missing occupational title (except top bureaucrat) or a non-missing honorific title (except Bey and Pasha). Finally, we classified an MP as Missing Social Class if (a) they were not assigned to a constituency, **or** (b) they were assigned to a constituency, yet the occupation *and* honorific title are **both** missing. Table A2.3 lists the occupation, honorific title, and urban/rural constituency distribution for each social class.

Three notes are in order. First, the rationale behind our decision to assign certain MPs to a Missing Social Class is because (a) if the MP’s constituency is not known, (and the MP is not Bey, Pasha, or Top Bureaucrat), we cannot know whether the MP belonged to the Urban Middle Class or the RMC, and (b) if the constituency is known, yet the occupation and honorific title are both missing, it is not possible to identify if the MP belonged to the LE or the Middle Class (whether Urban or Rural). Second, combining information from occupation, honorific title, and the urban/rural status of constituency allowed us to assign many MPs with missing occupational title or honorific title to a social class. It also allowed us to dis-aggregate the opaque “Notable” (*a‘yan*) occupational title – that became common in the colonial period – into the LE, the RMC, and the Urban Middle Class. This term “notable” is a category with origins in the colonial writings on Egypt that is frequently used in the political historiography of Egypt. Using this term to describe political elites in the precolonial and

TABLE A2.3. Distribution of Occupation, Honorific Title, and Urban/Rural Status of Constituency by Social Class of Members of Parliament

Class	Honorific Title	Occupation	Constituency
Landed Elite (289)	Pasha (90), Bey (198), Other (1)	Missing (171), Notable (94), Bureaucrat (11), Business (7), Top bureaucrat (6)	Missing (75), Urban (47), Rural (167)
Rural Middle Class (679)	Sheikh (377), Effendi (234), Bey (1), Other (49), Missing (18)	Village headman (409), Notable (165), Missing (82), Bureaucrat (20), Professional (2), Business (1)	Rural (679)
Urban Middle Class (57)	Effendi (35), Sheikh (12), Other (2), Missing (8)	Missing (9), Notable (43), Bureaucrat (2), Business (3)	Urban (57)
Missing (77)	Effendi (33), Sheikh (19), Other (5), Missing (20)	Missing (39), Notable (10), Bureaucrat (17), Professional (7), Religious Elite (4)	Urban (13), Rural (3), Missing (61)

Notes: The numbers in parentheses refer to the number of MP-session observations under each category. Occupation, honorific title, and constituency are defined based on the first parliamentary session in which an MP appears.

colonial periods gives the false impression of elite continuity. Critically, “notable” does not distinguish between the LE and RMC, or “notables of fellah origin.” Third, our social class classification is based on the historical literature on 19th-century and early 20th-century Egypt and the Ottoman Empire at large. Pashas and beys were the highest honorific titles in the Ottoman Empire, and were granted by the Khedive to individuals among large landowners.⁸ Top bureaucrats were also drawn from among large landowners (Abbas and El-Dessouky 2011). The RMC is also referred to as rural elites or rural notables in the secondary literature (Cuno 1992). This class consisted of village headmen, and other professionals in rural provinces who held the sheikh or effendi titles – the effendi title was the third highest honorific title. The urban middle class, on the other hand, consisted of merchants, and other professionals in urban provinces who held the sheikh or effendi titles.

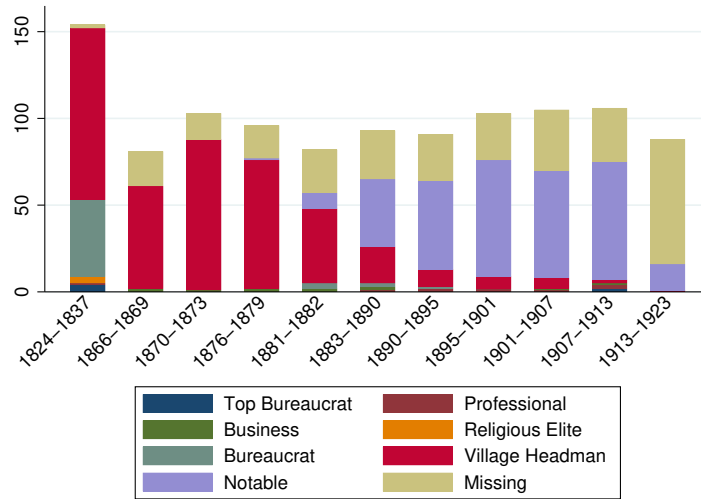
Figure A2.2 shows the evolution of the distribution of occupations of MPs from 1824 to 1923. Village headmen dominated the precolonial parliaments, especially in 1866–1882. The 1882–1923 parliaments were dominated by “notables,” but as previously stated this term was applied to several different classes during the colonial period.

The distribution of honorific titles is presented in Figure A2.3. MPs with the Sheikh title dominated the precolonial parliaments, whereas the colonial parliaments had more Pasha and Bey MPs.

Finally, we show the rural-urban breakdown of MPs in Figure A2.4. While the parliament remained dominated by rural MPs, the 1883 colonial election law increased the number of appointed MPs who were not associated with a constituency.

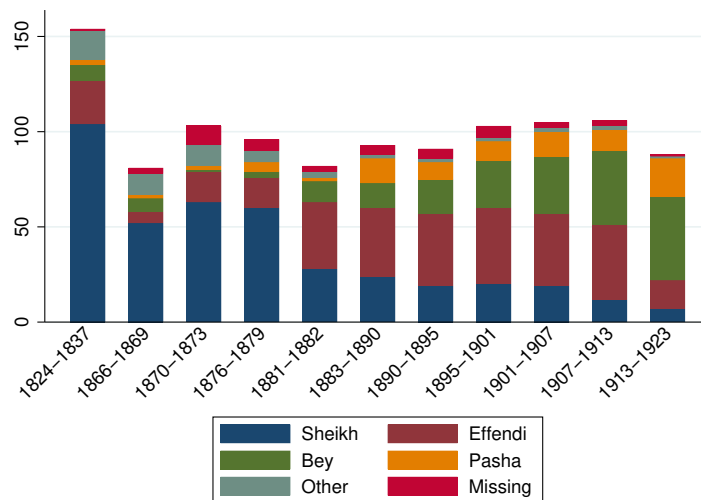
⁸Granting honorific titles was not regulated before 1914 – the year in which Egypt was declared a British Protectorate independent of the Ottoman Empire. In practice, granting the titles of pasha or bey was rare, and was mainly confined to large landowners and top bureaucrats. According to a decree that first regulated this process, issued in 1914, the pasha title was granted to top bureaucrats who earned at least 1200 Egyptian Pounds (EGP) annually, or the largest landowners. The bey title was granted to bureaucrats earning at least 564 EGP annually, or large landowners who provided significant services to the country.

FIGURE A2.2. The Occupational Composition of Members of Parliament, 1824–1923

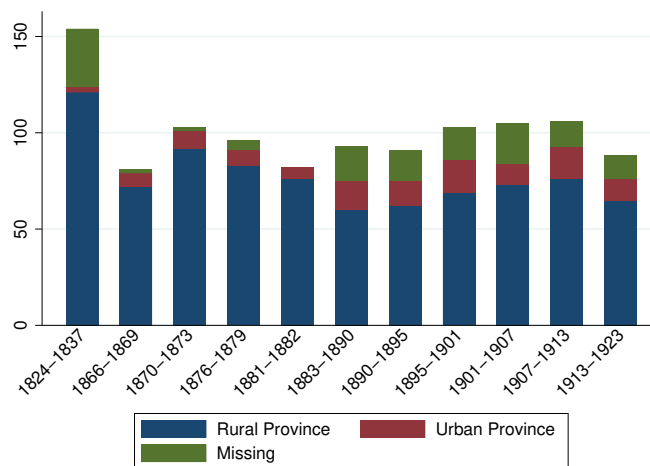


Notes: The figure shows the distribution of the initial occupational title across MPs by session. We combined MPs in the two chambers during the bicameral period from 1883 to 1913.

FIGURE A2.3. The Honorific Title Composition of Members of Parliament, 1824–1923



Notes: The figure shows the distribution of the initial honorific title across MPs by session. We combined MPs in the two chambers during the bicameral period from 1883 to 1913.

FIGURE A2.4. The Urban-Rural Status of the Parliamentary Constituency of Members of Parliament, 1824–1923

Notes: We combined MPs in the two chambers during the bicameral period from 1883 to 1913. We defined a rural constituency to be any village, district, or a province in the Nile Delta and Valley according to the 1882 population census administrative division. Urban constituencies are Cairo, Alexandria, Suez, Rosetta, 'Arish, Qusayr, and Damietta.

A3: PRECOLONIAL TRENDS

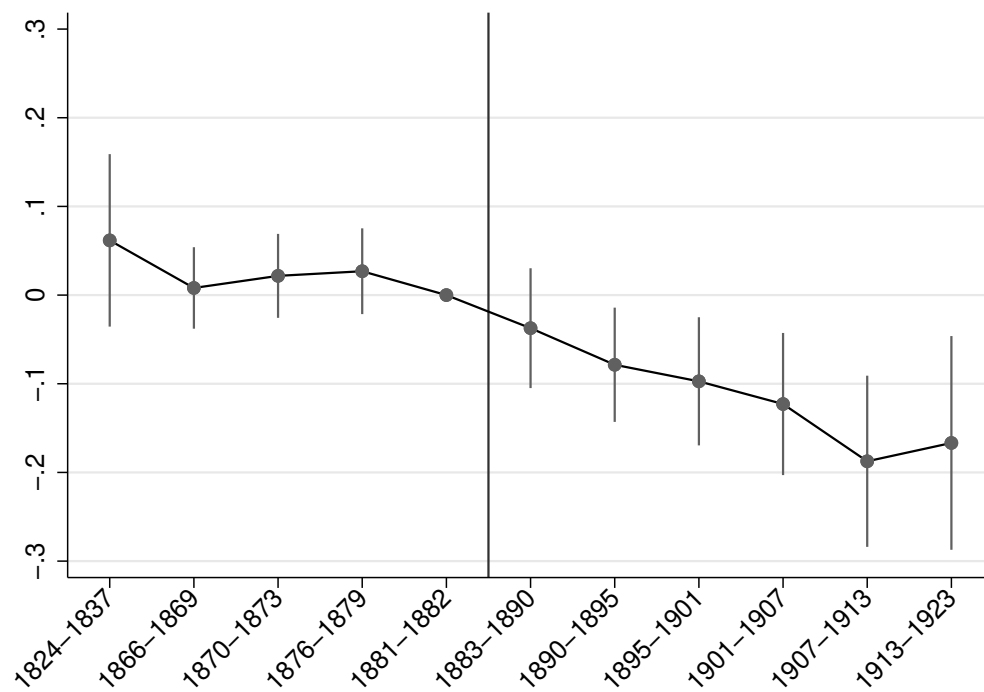
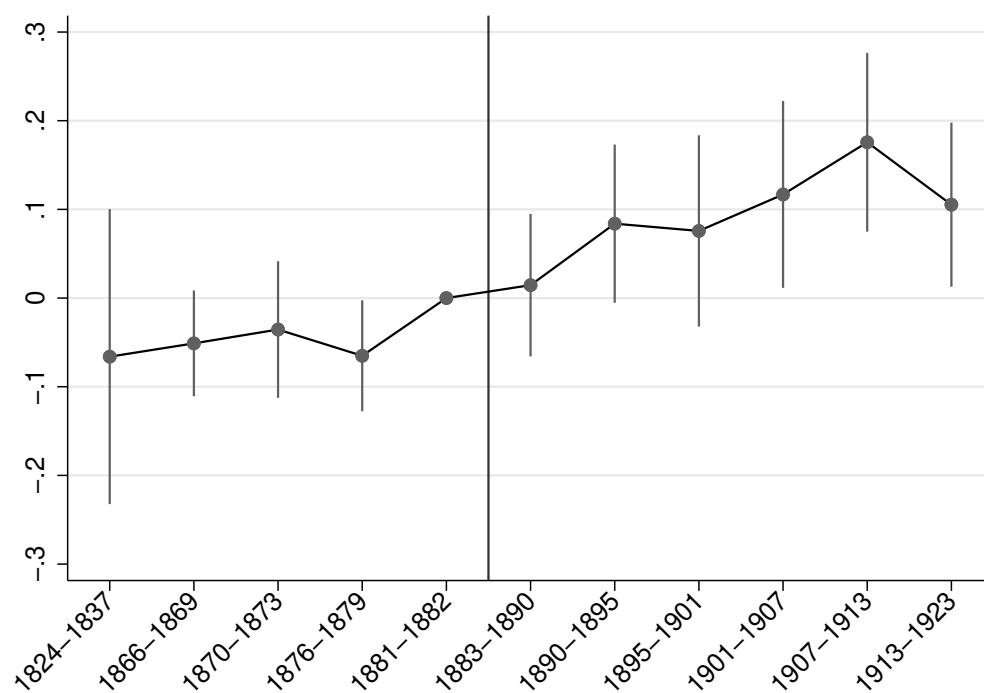
Figure A3.5 shows the results of estimating equation (2). We plot the point estimates of β_s , which capture the effect of precolonial cotton productivity per feddan in 1877 – our measure of colonial exposure – on the social class composition of MPs for each parliamentary session from 1824–1837 to 1913–1923, where the omitted session is 1881–1882, the last precolonial parliamentary session.

Our treatment – cotton productivity – is continuous. Callaway et al. (2024) show that, in the case of continuous treatment, the parallel-trends assumption is sufficient to estimate the average treatment effect on the treated at the level of the “dose” – cotton yield per feddan in 1877 in our case – that was actually received by each treated province. This estimand is the average of the treatment effects across provinces that had positive cotton productivity, comparing each province that had positive cotton productivity to “untreated” provinces that had 0 cotton productivity. However, to estimate the marginal effect of each province increasing its cotton productivity by a few quintars, a stronger parallel trends assumption is needed. In our case, we are able to estimate the average treatment effect on the treated, by comparing “treated” provinces that have positive cotton productivity with “untreated” provinces that have 0 cotton productivity.

Part (a) of Figure A3.5 shows the results for the RMC. It reveals that provinces with higher and lower cotton productivity in 1877 were on parallel trends of the proportion of RMC MPs during the precolonial period. The point estimates in 1824–1879 are all close to zero and not statistically significant, relative to 1881–1882. The figure also supports the no-anticipation assumption, since the coefficient for 1876–1879 is close to zero and not statistically significant. In the colonial period, starting from the 1890–1895 session onwards, provinces with higher cotton productivity witnessed a greater decline in the RMC representation in parliament relative to 1881–1882, in comparison to lower cotton productivity provinces.

For the LE representation, the results mirror what we observe for the RMC. Part (b) shows that provinces with higher and lower cotton productivity in 1877 were on parallel trends of the proportion

of LE MPs during the precolonial period, except for the 1876-1879 session, where the point estimate is negative and statistically significant at the 10-percent level. The colonial-era point estimates are all positive, and statistically significant starting from the 1901–1907 session. While the null coefficients for the LE from 1824–1837 to 1870–1873 support the parallel trends assumption, the negative coefficient in 1876–1879, relative to 1881–1882, is a potential violation of the no-anticipation assumption. However, we argue that this potential violation is not driving our results for three reasons. First, it is only observed for the LE, and not the RMC. Second, this negative coefficient is not due to the anticipation of the British occupation. Instead, it is arguably explained by the Khedival intervention in the 1881–1882 session to make it more representative of the LE (see Figure 3), following the dissolution of the oppositional 1876–1879 parliament. We build on our intuition that this Khedival intervention may have been motivated by the overall wealth of provinces, and not by precolonial cotton productivity per se. We thus control for precolonial cereals productivity – Egypt’s major subsistence crops – interacted with a full set of session fixed effects in equation (3). The results, shown in Figure A3.6, come in support of both the parallel trends and no-anticipation assumptions for both the RMC and the LE. The colonial-period effects are similar to those in Figure A3.5, except that they are noisier and not significant in the later colonial sessions. Third, the negative coefficient for the LE in 1876–1879, relative to 1881–1882, makes it less likely to detect statistically significant effects in the colonial period, because each colonial session is compared to the 1881–1882 session when cotton provinces had an (exceptionally) higher share of LE MPs than the previous precolonial sessions.

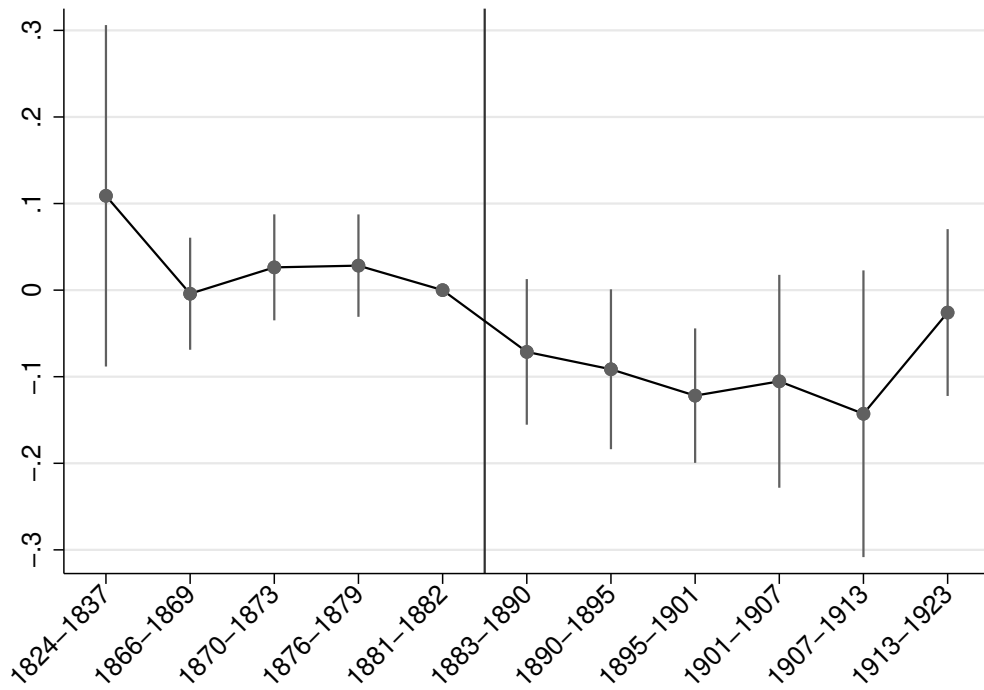
FIGURE A3.5. The British Occupation and Social Class Composition of Parliament: Precolonial Trends (No Controls)**(a) Rural Middle Class****(b) Landed Elite**

Notes: The graphs show the estimated regression coefficient ($\hat{\beta}_s$) on the interaction between cotton yield per *feddan* in 1877 and each parliamentary session indicator in 1824–1923 from the following regression model:

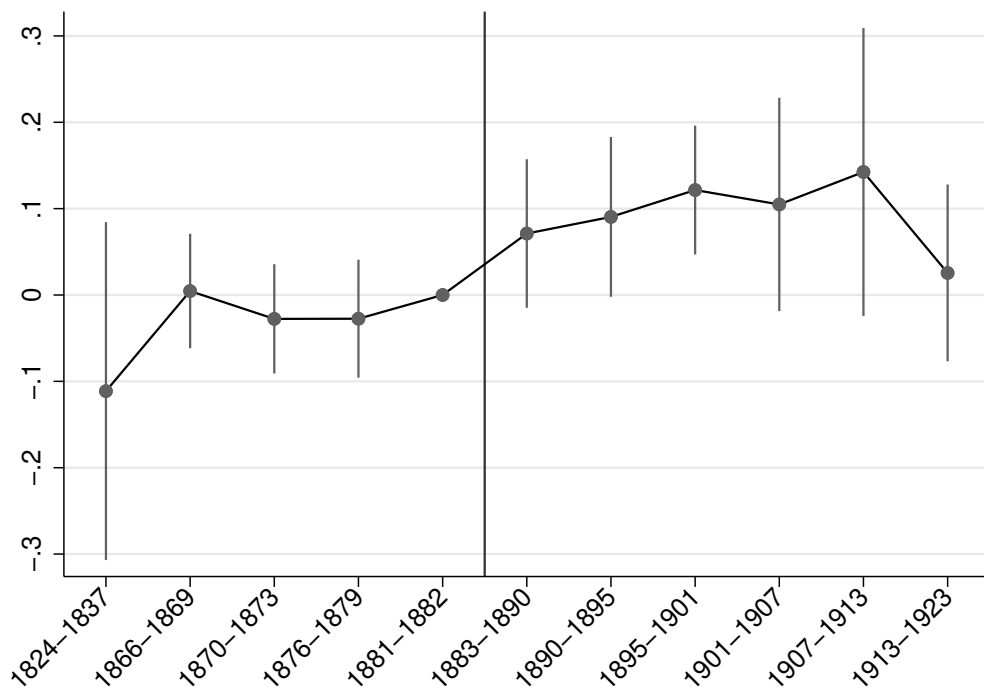
$$y_{mps} = \sum_{s=1824}^{1923} \beta_s \text{cotton}_p + \alpha_p + \gamma_s + \epsilon_{mps}.$$

FIGURE A3.6. The British Occupation and Social Class Composition of Parliament: Precolonial Trends (With Controls)

(a) Rural Middle Class



(b) Landed Elite



Notes: The graphs show the estimated regression coefficient ($\hat{\beta}_s$) on the interaction between cotton yield per *feddan* in 1877 and each parliamentary session indicator in 1824–1923 from the following regression model:

$$y_{mps} = \sum_{s=1824}^{1923} \beta_s cotton_p + \sum_{s=1824}^{1923} \theta_s cereals_p + \alpha_p + \gamma_s + \epsilon_{mps}.$$

A4: ROBUSTNESS CHECKS

We conducted a wide range of robustness checks related to four issues: (1) alternative theoretical explanations for our findings, (2) measurement and statistical inference, (3) assignment of MPs to constituencies, occupations, and honorific titles, and (4) classification of MPs to social classes.

Alternative Explanations: Statedness and Geography As we discussed in the Theory Section, Gerring et al. (2011) demonstrated that precolonial statedness predicts indirect colonial rule. This alternative explanation raises three potential concerns. First, one might imagine that provinces with higher precolonial cotton productivity may have higher state capacity than less cotton-productive regions. Second, because the LE constituted the incumbent power elite prior to the ‘Urabi Revolution, we may be concerned that it might be the LE’s relationship to the state driving our findings, rather than their congruence with colonial economic interests. Third, proximity to the capital (Cairo) may mean that more proximate provinces are more likely to be influenced by colonial intervention.

To examine this alternative explanation, we re-estimated equation (1) using two additional sets of time-invariant control variables, each interacted with the post-1882 indicator. We account for precolonial statedness by controlling for precolonial military and civil bureaucratic capacity. We measure military capacity by the proportion of the population who belonged to the military and police (commissioned military officers, non-commissioned military officers, military soldiers, policemen) in the 1848 population census, and we measure civil bureaucracy capacity by the proportion of the population who belonged to the bureaucracy (high-, mid-, and low-level bureaucrats) in the same census. We use distance to Cairo to account for the relative access to provinces by the central state. We also control for latitude and longitude to allay concerns that other geographic characteristics of the provinces, not cotton, may be driving the results. Table A4.4 shows the results. We find that precolonial cotton productivity retains its magnitude and statistical significance, suggesting that cotton as a measure of colonial exposure is not driven by statedness or geography.

TABLE A4.4. Alternative Interpretations of Precolonial Cotton Productivity: Precolonial State Capacity and Geography

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.153*** (0.051)	0.140*** (0.042)	-0.148*** (0.034)	-0.131*** (0.029)	-0.006 (0.043)	-0.008 (0.027)
Post-1882 × Latitude	0.040 (0.057)		-0.047 (0.037)		0.007 (0.048)	
Post-1882 × Longitude	-0.192** (0.072)		0.087 (0.065)		0.105 (0.072)	
Post-1882 × Dist. Cairo	0.001** (0.001)		-0.001* (0.000)		-0.000 (0.000)	
Post-1882 × Prop. Military 1848		-7.560 (5.400)		7.224 (5.369)		0.336 (2.334)
Post-1882 × Prop. Bureaucracy 1848		7.404** (3.435)		-4.429 (3.380)		-2.975 (2.256)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	949	949	949	949	949	949
R ²	0.35	0.34	0.54	0.54	0.58	0.59
Av. Dep. Var. 1866-1882	0.07	0.07	0.90	0.90	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are not assigned a constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Measurement and Statistical Inference We conducted a range of robustness checks that are related to measurement and statistical inference. The first robustness check is to examine whether our results are sensitive to the way we measure precolonial cotton productivity. One concern is that by measuring cotton productivity as a continuous variable, we assume that the effect is linear, while the real effect may be non-linear. More importantly, under continuous treatment, we are able to estimate the average treatment effect on the treated, by comparing “treated” provinces that have positive cotton productivity with “untreated” provinces that have 0 cotton productivity.

We examine three ways to capture the non-linearity of the effect: (1) comparing provinces with positive cotton productivity in 1877 to provinces that did not produce any cotton, (2) comparing provinces that are above the median cotton productivity to those that are below the median, and (3) comparing provinces at the second, third, and fourth quartiles of precolonial cotton productivity to those that are at the first quartile (=0).⁹ Table A4.5 shows that our results are robust to the way we measure cotton productivity in 1877.

TABLE A4.5. The British Occupation and Social Class Composition of Parliament: Non-Linear Cotton Productivity

	=1 if Landed Elite			=1 if Rural Middle Class			=1 if Urban Middle Class		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post-1882 × Cotton (> 0)	0.150** (0.060)			-0.148*** (0.043)			-0.002 (0.041)		
Post-1882 × Cotton (> Median)		0.214** (0.081)			-0.214** (0.079)			-0.000 (0.017)	
Post-1882 × Cotton (Q2)			-0.007 (0.134)			0.009 (0.127)			-0.002 (0.040)
Post-1882 × Cotton (Q3)			0.164* (0.079)			-0.161** (0.063)			-0.002 (0.048)
Post-1882 × Cotton (Q4)			0.279*** (0.061)			-0.279*** (0.056)			0.000 (0.024)
Post-1882 × Cereals	0.094 (0.055)	0.082 (0.061)	0.062 (0.062)	-0.088*** (0.025)	-0.076*** (0.025)	-0.056* (0.030)	-0.006 (0.048)	-0.006 (0.055)	-0.006 (0.053)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18	18	18	18
Obs (MP-Session)	949	949	949	949	949	949	949	949	949
R ²	0.33	0.34	0.34	0.54	0.54	0.55	0.58	0.58	0.58
Av. Dep. Var. 1866-1882	0.07	0.07	0.07	0.90	0.90	0.90	0.03	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The second robustness check is to measure cotton and cereals productivity by crop “suitability,” or the maximum attainable yield given soil quality and water sources. To this end, we employ the Food and Agriculture Organization Global Agro-Ecological Zones (FAO-GAEZ) crop suitability indices, which are widely used in the literature, as alternative measures of cotton and cereals productivity. Because Egyptian agriculture is irrigation-fed, we use the FAO-GAEZ crop suitability indices under irrigation and intermediate input level for the baseline period (1961–1990).¹⁰ The FAO-GAEZ cotton and cereals suitability indices are continuous varying between 0 and 1, with 1 being the highest value

⁹The quartiles of precolonial cotton productivity in 1877 are defined based on the cross-province distribution: $Q_1 = 0$, $Q_2 = 1.067931$, $Q_3 = 1.756632$.

¹⁰The crop suitability indices under irrigation are *not* available at the *low* input level, presumably because the irrigation infrastructure requires a sufficiently high level of input. We used FAO-GAEZ Data Portal Version 3.0.1. The crop suitability indices under irrigation assume that water resources are available and that the irrigation

in the sample, and 0 the lowest. However, these indices are subject to a major caveat: since Egyptian agriculture is irrigation-fed, the FAO-GAEZ indices being measured in 1961–1990 may be endogenous to the evolution of the man-made irrigation network in Egypt up until 1990 (e.g., the construction of the Aswan High Dam in 1970). However, our results are robust to using the FAO-GAEZ crop suitability indices (Table A4.6).

TABLE A4.6. The British Occupation and Social Class Composition of Parliament: FAO-GAEZ Cotton Suitability Index

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.816*	6.406***	-0.784***	-6.432***	-0.032	0.026
	(0.401)	(2.188)	(0.097)	(2.180)	(0.382)	(0.233)
Post-1882 × Cereals		-4.535**		4.582**		-0.047
		(1.818)		(1.757)		(0.475)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	949	949	949	949	949	949
R^2	0.33	0.34	0.54	0.54	0.58	0.58
Av. Dep. Var. 1866-1882	0.07	0.07	0.90	0.90	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The third robustness check that is related to statistical inference is to re-estimate the standard errors using the Wild Cluster Bootstrap (WCB), which accounts for the small number of clusters (provinces) in our dataset. Table A4.7 shows that our results retain their statistical significance when using Wild Cluster Restricted (WCR) bootstrap, with Webb weights and 999,999 replications.

TABLE A4.7. The British Occupation and Social Class Composition of Parliament: Wild Cluster Bootstrap (WCB) Standard Errors

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.140***	0.115**	-0.138***	-0.115**	-0.003	0.000
	(0.010)	(0.015)	(0.003)	(0.016)	(0.852)	(0.647)
Controls	No	Yes	No	Yes	No	Yes
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	949	949	949	949	949	949
R^2	0.34	0.34	0.54	0.54	0.58	0.58
Av. Dep. Var. 1866-1882	0.07	0.07	0.90	0.90	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. P -values estimated using Wild Cluster Restricted Bootstrap (WCB), and clustering the standard errors at the province level, with Webb weights and 999,999 replications, are in parentheses. We used the STATA command `boottest` to estimate the standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

infrastructure is in place. They take into account the type of soil and the terrain slope. The crop suitability indices under rain-fed agriculture show no variation within Egypt, which receives too little rainfall.

Assignment of Geography, Occupation, and Honorific Title We conducted a number of checks for the robustness of our results to the decisions we made in the data construction phase. First, recall that we implemented a two-step imputation procedure of the geographic assignment for MPs who are assigned to different geographic units across sessions (STEP A), and for MPs who are assigned a missing constituency (STEP B) in Appendix A1. As a robustness check, we dropped all MP-session observations whose geographic assignment was altered by our imputation procedure. Table A4.8 shows that our results are robust to this decision.

TABLE A4.8. The British Occupation and Social Class Composition of Parliament: Excluding MPs Whose Geographic Assignment Changed

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.181*** (0.047)	0.152** (0.056)	-0.178*** (0.038)	-0.153** (0.056)	-0.003 (0.028)	0.000 (0.003)
Post-1882 × Cereals		0.059 (0.078)		-0.052 (0.052)		-0.007 (0.056)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	834	834	834	834	834	834
R^2	0.37	0.38	0.60	0.60	0.56	0.56
Av. Dep. Var. 1866-1882	0.07	0.07	0.91	0.91	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). These regressions dropped 117 MP-session observations whose geographic assignment was altered by our imputation procedure. We dropped 136 observations that are assigned a missing constituency. We further dropped 14 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Second, recall that we assigned the first non-missing occupational title of the MP to all the other sessions in which that MP served (See Appendix A2). As a robustness check, we dropped all MP-session observations whose occupational title is different from the original occupation. Table A4.9 shows that our results are robust to this decision.

TABLE A4.9. The British Occupation and Social Class Composition of Parliament: Excluding MPs Whose Occupational Title Changed

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.173*** (0.042)	0.142*** (0.044)	-0.170*** (0.030)	-0.143*** (0.044)	-0.004 (0.029)	0.001 (0.003)
Post-1882 × Cereals		0.064 (0.077)		-0.055 (0.048)		-0.009 (0.060)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	913	913	913	913	913	913
R^2	0.36	0.36	0.56	0.56	0.58	0.58
Av. Dep. Var. 1866-1882	0.07	0.07	0.90	0.90	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). These regressions dropped 37 MP-session observations whose occupational title is different from the MP's original occupation. We dropped 135 observations that are assigned a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Third, recall that we assigned the first non-missing honorific title of the MP to all the other sessions in which that MP served (See Appendix A2). As a robustness check, we dropped all MP-session

observations whose honorific title is different from the original title. Table A4.10 shows that our results are robust to this decision.

TABLE A4.10. The British Occupation and Social Class Composition of Parliament: Excluding MPs Whose Honorific Title Changed

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.174*** (0.054)	0.149** (0.059)	-0.173*** (0.041)	-0.148** (0.058)	-0.002 (0.035)	-0.001 (0.003)
Post-1882 × Cereals		0.051 (0.091)		-0.050 (0.055)		-0.001 (0.072)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	806	806	806	806	806	806
R^2	0.40	0.40	0.59	0.59	0.55	0.55
Av. Dep. Var. 1866-1882	0.07	0.07	0.90	0.90	0.02	0.02

Notes: The sample is at the MP-session level ($N = 1,102$). These regressions dropped 148 MP-session observations whose honorific title is difference from the MP's original title. We dropped 131 observations that are assigned to a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Classification of MPs to Social Classes Our social class coding combines information from three variables: occupation, honorific title, and the rural/urban status of constituency. While this coding is based on Egyptian historiography, it is important to check the robustness of our results to the way we coded MPs' social class origins.

First, we re-estimate equation (1) using initial occupations and honorific titles as dependent variables. This allows us to disentangle the source of the effect of the British occupation on social class composition. In Table A4.11, we examine four occupational groups as outcomes: (1) bureaucrats (including top bureaucrats and other bureaucrats), (2) village headmen and notables, and (3) other occupations (business, religious elite), and (4) missing occupation. We restrict this analysis to MPs from rural constituencies, in order to ensure that these occupational groups are relatively more homogeneous. The results show that provinces with higher precolonial cotton productivity witnessed after 1882 a greater increase in the share of bureaucrats – who are more likely to be classified as LE according to our definition – and a greater decrease in the share of village headmen and notables – who are more likely to be classified as RMC according to our definition – in comparison to lower cotton productivity provinces.

In Table A4.12, we examine four honorific title groups: (1) Pasha and Bey, (2) Effendi and Sheikh, (3) Other (Haj, Mo'allim), and (4) missing title. The results demonstrate that more cotton productive provinces witnessed after 1882 a larger rise in the share of Pashas and Beys – who are classified as LE according to our definition – among MPs, and a greater drop in the share of Effendis and Sheikhs – who are more likely to be classified as RMC according to our definition – in comparison to less cotton productive provinces. Taken together, Tables A4.11 and A4.12 show that the positive effect of the British occupation on the proportion of LE MPs is mainly driven by its positive effect on the proportion of Pashas and Beys, and on the proportion of bureaucrats. Its negative effect on the proportion of RMC MPs is mainly driven by its negative effect on the proportion of Effendis and Sheikhs, and on the proportion of village headmen and notables. Overall, however, honorific titles are more informative in our context, given the greater missingness of occupational titles, and the issue of the “notable” title which is difficult to interpret.

TABLE A4.11. The British Occupation and Social Class Composition of Parliament: Initial Occupational Titles as Dependent Variables

	(1) Top Bureaucrat or Bureaucrat	(2) Village Headman or Notable	(3) Other Occupation	(4) Missing Occupation
Post-1882 × Cotton	0.041* (0.020)	-0.035* (0.017)	-0.007 (0.008)	-0.027 (0.044)
Post-1882 × Cereals	-0.051 (0.040)	0.069 (0.052)	-0.018 (0.033)	-0.146* (0.075)
Session FEs	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes
Clusters (Provinces)	14	14	14	14
Obs (MP-Session)	677	677	677	849
R ²	0.16	0.13	0.08	0.27
Av. Dep. Var. 1866-1882	0.01	0.99	0.00	0.16

Notes: The sample is at the MP-session level ($N = 1,102$). This regression is confined to MPs in rural constituencies. We dropped 136 observations that are assigned a missing constituency, and 117 observations that are assigned an urban constituency. Columns 1–3 drop 172 observations with missing occupational title. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Controls include the interaction of the post-1882 dummy variable with the cereals yield per feddan in 1877. Standard errors clustered at the province level are in parentheses. The regressions include the following parliamentary sessions from 1824 to 1923: 1824–1837, 1866–1869, 1870–1873, 1876–1879, 1881–1882, 1883–1889, 1889–1895, 1895–1901, 1901–1907, 1907–1913, 1913–1923. We combine MPs from the two chambers during the bicameral period from 1883 to 1913, into the same session.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

TABLE A4.12. The British Occupation and Social Class Composition of Parliament: Initial Honorific Titles as Dependent Variables

	(1) Bey or Pasha	(2) Sheikh or Effendi	(3) Other	(4) Missing Title
Post-1882 × Cotton	0.119** (0.043)	-0.138** (0.050)	0.019 (0.018)	-0.015 (0.023)
Post-1882 × Cereals	0.043 (0.080)	-0.042 (0.088)	-0.001 (0.021)	0.089* (0.047)
Session FEs	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18
Obs (MP-Session)	923	923	923	965
R ²	0.35	0.26	0.07	0.12
Av. Dep. Var. 1866-1882	0.07	0.83	0.09	0.06

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned a missing constituency. Columns 1–3 drop 42 observations with missing honorific title. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Controls include the interaction of the post-1882 dummy variable with the cereals yield per feddan in 1877. Standard errors clustered at the province level are in parentheses. The regressions include the following parliamentary sessions from 1824 to 1923: 1824–1837, 1866–1869, 1870–1873, 1876–1879, 1881–1882, 1883–1889, 1889–1895, 1895–1901, 1901–1907, 1907–1913, 1913–1923. We combine MPs from the two chambers during the bicameral period from 1883 to 1913, into the same session.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Finally, because we define an MP's social class origin based on his occupation, honorific title, and urban-rural status during the first mandate, the effects in Table 1 are, by construction, driven by the screening of MPs based on their initial social class background, and not by the social class mobility of MPs. When we use the session-varying social class of MPs as a robustness check, we obtain (as expected) larger effects (Table A4.13). These larger effects, which are driven by both screening on initial social class background and social class mobility of MPs, suggest that there was considerable upward class mobility from the RMC to the LE during the colonial period.

TABLE A4.13. The British Occupation and Social Class Composition of Parliament: Session-Varying Social Class

	=1 if Landed Elite		=1 if Rural Middle Class		=1 if Urban Middle Class	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-1882 × Cotton	0.149*** (0.045)	0.140*** (0.045)	-0.152*** (0.046)	-0.119** (0.053)	0.005 (0.030)	0.000 (0.004)
post1882=1 × cerealyieldperfed1877P		0.017 (0.082)		-0.069 (0.058)		0.010 (0.067)
Session FEs	Yes	Yes	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Clusters (Provinces)	18	18	18	18	18	18
Obs (MP-Session)	949	949	949	949	949	949
R^2	0.40	0.40	0.54	0.54	0.51	0.51
Av. Dep. Var. 1866-1882	0.08	0.08	0.89	0.89	0.02	0.02

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned to a missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. Standard errors clustered at the province level and estimated using Wild Cluster Bootstrap are in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A5: ADDITIONAL TABLES AND FIGURES

This section shows additional tables and figures. Table A5.14 shows the summary statistics of MPs during the precolonial period 1866–1882 across high- and low-cotton productivity provinces in 1877. The table demonstrates that MPs in high-cotton provinces were not statistically different with respect to social class composition from their counterparts in low-cotton provinces, prior to 1882. Table A5.15 shows the results of the mechanisms analysis for the urban middle class, finding null effects as expected.

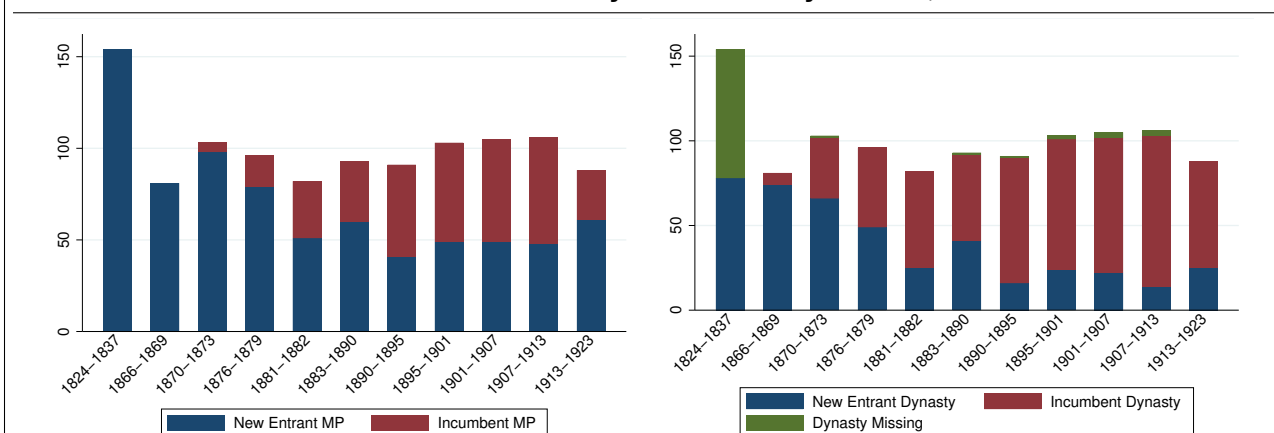
Figures A5.7-A5.9 show the evolution of the composition of members of parliament by their incumbency and new entrance status, their appointment and election status, and their membership in the upper or lower houses. Appendix Figure A5.7 shows the proportion of new entrants and incumbents in each parliamentary session from 1824 to 1923 (defined at the MP and dynasty levels). Both MP and dynastic persistence increased over time. The proportion of incumbent MPs increased between 1866 and 1882, and increased further during the colonial period, especially starting from the 1890–1895 session. The proportion of MPs from incumbent dynasties witnessed an even larger increase during the colonial period. This suggests that MPs and dynasties became more persistent across sessions during the colonial period. Appendix Figure A5.8 shows the evolution of the composition of MPs by their election and appointment status. While the first parliamentary session in 1824–1837 included both appointed and elected MPs, the sessions from 1866 to 1882 had almost all elected MPs. Nonetheless, following the British occupation, we observe a rise in the share of appointed MPs, because the newly established upper house had 14 MPs who were appointed for life. Appendix Figure A5.9 shows the share of the upper house MPs during the colonial period.

TABLE A5.14. Summary Statistics in 1866–1882 by Cotton Productivity in 1877

	Low Cotton			High Cotton			Diff
	N	Mean	SD	N	Mean	SD	
=1 if MP Landed Elite	104	0.12	0.33	236	0.05	0.21	-0.078
=1 if MP Rural Middle Class	104	0.79	0.41	236	0.95	0.21	0.165
=1 if MP Urban Middle Class	104	0.09	0.28	236	0.00	0.00	-0.087
=1 if MP Pasha	100	0.02	0.14	231	0.00	0.00	-0.020
=1 if MP Bey	100	0.11	0.31	231	0.05	0.21	-0.062
=1 if MP Effendi	100	0.32	0.47	231	0.18	0.38	-0.143
=1 if MP Sheikh	100	0.46	0.50	231	0.68	0.47	0.220
=1 if MP Holds Other Honorific Title	100	0.09	0.29	231	0.10	0.29	0.005
=1 if MP Missing Honorific Title	104	0.04	0.19	236	0.02	0.14	-0.017
=1 if MP Top Bureaucrat	81	0.00	0.00	202	0.00	0.00	0.000
=1 if MP Professional	81	0.00	0.00	202	0.00	0.00	0.000
=1 if MP Business	81	0.07	0.26	202	0.00	0.07	-0.069
=1 if MP Religious Elite	81	0.00	0.00	202	0.00	0.00	0.000
=1 if MP Bureaucrat	81	0.04	0.19	202	0.00	0.00	-0.037*
=1 if MP Village Headman	81	0.81	0.39	202	0.98	0.16	0.160
=1 if MP Notable	81	0.07	0.26	202	0.02	0.14	-0.054
=1 if MP Missing Occupation	104	0.22	0.42	236	0.14	0.35	-0.077
=1 if MP Rural Constituency	104	0.82	0.39	236	1.00	0.00	0.183
=1 if MP Urban Constituency	104	0.18	0.39	236	0.00	0.00	-0.183
Cotton Yield Per Feddan in 1877	104	0.40	0.45	236	1.84	0.59	1.434***
Cereals Yield Per Feddan in 1877	104	1.80	0.90	236	2.25	0.44	0.453

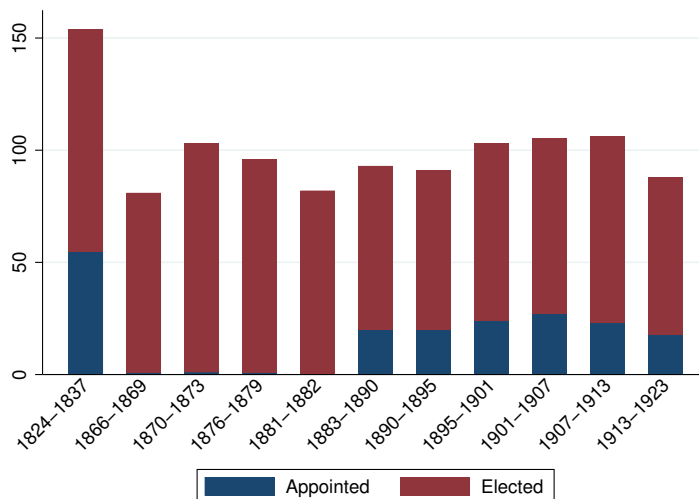
Notes: This table is restricted to MP-session observations that are assigned to a non-missing constituency and to a non-missing social class in 1866–1882. The “Diff” column reports the coefficient of the following MP-session level pooled OLS regression in 1866–1882:

$y_{mp} = \alpha_1 + \alpha_2 HighCotton_p + \epsilon_{mp}$, where y_{mp} is the outcome of MP m who is assigned to province p in 1866–1882, and $HighCotton_p$ is a dummy variable =1 if the MP’s province is above the cross-province median cotton production per feddan in 1877, and =0 otherwise. Standard errors are clustered at the province level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

FIGURE A5.7. Members of Parliament by Incumbency Status, 1824–1923**(a) New Entrant and Incumbent MPs****(b) New Entrant and Incumbent Dynasties**

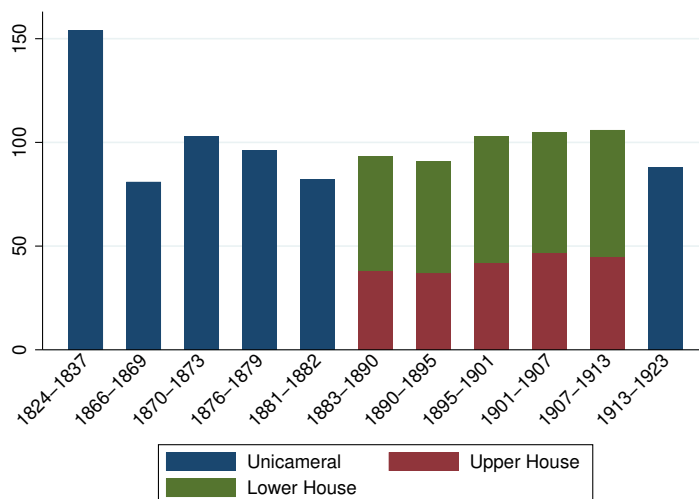
Notes: We combined MPs in the two chambers during the bicameral period from 1883 to 1913.

FIGURE A5.8. Members of Parliament by Election and Appointment Status, 1824–1923



Notes: We combined MPs in the two chambers during the bicameral period from 1883 to 1913.

FIGURE A5.9. Members of Parliament by Upper and Lower House Membership, 1824–1923



Notes: We combined MPs in the two chambers during the bicameral period from 1883 to 1913.

TABLE A5.15. Mechanism: Precolonial Political and Economic Congruence of Precolonial Elites — Urban Middle Class

	(1)	=1 if Urban Middle Class		(4)
		(2)	(3)	
Post-1882 × Cotton × Democratic Speeches Per MP	-0.157 (0.118)			
Post-1882 × Cotton × N. Urabi V. Headmen Arrests		-0.003 (0.035)		
Post-1882 × Cotton × Large Estates Land Share (Q3)			0.002 (0.003)	
Post-1882 × Cotton × Large Estates Land Share (Q4)			0.001 (0.004)	
Post-1882 × Cotton × Prop. Slaves				0.023 (0.215)
Post-1882 × Cotton	0.011 (0.015)	0.001 (0.006)	0.001 (0.002)	-0.000 (0.005)
Post-1882 × Prop. Democratic Speeches	0.290 (0.215)			
Post-1882 × N. Urabi V. Headmen Arrests		0.005 (0.060)		
Post-1882 × Large Estates Land Share (Q1)			0.007 (0.193)	
Post-1882 × Large Estates Land Share (Q3)			-0.006 (0.006)	
Post-1882 × Large Estates Land Share (Q4)			-0.002 (0.006)	
Post-1882 × Prop. Slaves				-0.039 (0.251)
Post-1882 × Cereals	0.103 (0.092)	-0.007 (0.064)	-0.004 (0.006)	-0.006 (0.062)
Session FEs	Yes	Yes	Yes	Yes
Province FEs	Yes	Yes	Yes	Yes
Clusters (Provinces)	17	18	18	18
Obs (MP-Session)	942	949	949	949
R^2	0.53	0.58	0.58	0.58
Av. Dep. Var. 1866-1882	0.03	0.03	0.03	0.03

Notes: The sample is at the MP-session level ($N = 1,102$). We dropped 136 observations that are assigned to missing constituency. We further dropped 16 observations with missing social class. STATA command `reghdfe` further dropped one singleton observation that belongs to Suez province. In columns 1 and 5, 7 additional observations are dropped because they belong to Rosetta that had no MPs in 1824–1882. In columns 3 and 7, the omitted quartile of the land share of large estates is the second quartile. Provinces at the first quartile all have 0 cotton productivity, and so the triple-interaction term “Post-1882 × Cotton × Large Estates Land Share (Q1)” cannot be separately identified. Standard errors clustered at the province level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A6: CODING PRO-DEMOCRATIC SPEECHES IN 1866–1882

We use data from Hartnett and Saleh (2023) who coded MP speeches as pro-democratic if the matter/issue of discussion involves meaningfully constraining the executive. The following matters/issues are included under this heading. These matters/issues are mentioned explicitly in the source, or inferred from the discussion.

Parliament	Coded Matter/Issue
1866-1869	
1870-1873	
1876-1879	Draft of Constitution Law, Rejecting Khedival Decision to dissolve the parliament.
1881-1882	Discussion of Government Report on Parliament Law Draft, Discussion of Ministers' Presentation of Khedival Amendments to Parliament Law Draft, Discussion of Need for New Parliament Law, Discussion of PM (Mahmoud Sami Elbaroudi) Speech in which He Presented New Parliament Law and Three Relevant Khedival Decrees, Discussion of Parliamentary Committee Report on Parliament Law Draft, Discussion of Prime Minister Speech on Parliament Law Draft, Draft Law on Elections, Need for Draft Constitution, Requiring Government Response to MP Inquiries.

A7: MECHANISM HISTORIOGRAPHY

The Colonial Parliament and British Economic Objectives: Colonial redistribution of power within Egyptian parliament had explicitly economic goals. According to Lord Dufferin – the colonial official tasked with the “reorganization” of Egypt – parliamentary reform was a necessary condition for achieving Britain’s economic goals: “The desideratum of every one is an Egypt peaceful, prosperous, and contented, able to pay its debts, capable of maintaining order along the Canal, and offering no excuse to the troubled condition of its affairs for interference from the outside.” (Foreign Office 1883, no. 73, p. 129). Dufferin viewed the LE as “the ablest men the country is able to produce” (Foreign Office 1883, no. 73), while Lord Cromer, the British Resident in Egypt from 1883 to 1907, favored the LE over other Egyptians, writing that they had the “glamour of a dominant race” (Cromer 1908, p. 172-73). The British understood that they were enhancing the power of the LE beyond the status quo.

The redesigned colonial parliament played a significant role in matters related to economic interests, including cotton production, agriculture, and taxation. According to the 1883 Basic Law, the Legislative Council, or upper house (UH), sat continuously and had to be consulted on all legislation, with the exception of the foreign debt. The General Assembly, or lower house (LH), convened at least once every two years and must be consulted on every public loan over one million Egyptian pounds, the construction of canals and railways, and on land classification for taxation. No new taxes could be imposed without a positive, binding vote from the LH. Ministers and the Khedive issued laws, even if the British administration had to *de facto* approve them.

Colonial correspondence suggests the LE played a non-trivial policy role in parliament on matters related to colonial economic interests. Edgar Vincent, the British Financial Advisor in Egypt, recommended that the agricultural statistics be distributed to UH MPs so they could advise the Egyptian government about production given that “the agricultural question in Egypt has assumed so great a European importance” (Parliament Command Papers 85b). Lord Cromer reported that amendments suggested by UH MPs were frequently accepted by the government; rejected amendments received written justification from ministers (Parliament Command Papers 85a). LH MPs also informed policy related to cultivation and irrigation, including cotton. In the first convened LH session, MPs debated

the British advisor's plan to improve cotton yields with irrigation works. MPs formed an internal commission to liaise directly with engineers on the irrigation projects; 15 out of 22 members were pashas or beys (i.e., LEs) (Parliament Command Papers 1886). LH MPs also approved a proposal to abolish corvée labor in exchange for a nominal land tax to finance the expansion of irrigation in cotton-producing provinces (Parliament Command Papers 1890).

Slavery as a Measure of Precolonial Rural Middle Class Economic Congruence: A few notes are in order. First, using the 1848 and 1868 censuses, Saleh (2023) shows that the vast majority of slaves working in agriculture in cotton-producing provinces in 1868 were owned by the RMC (village headmen). The LE in cotton-producing provinces, on the other hand, did not rely on purchasing slaves but rather on increasing the number of peasants working on their large estates.¹¹ Therefore, the proportion of slaves captures the slaveholdings of the RMC, and not the LE. Second, the proportion of slaves captures the economic congruence – employing slaves in cotton cultivation – and not wealth. This has been documented by Cuno (2009) and Saleh (2023). Basically, if the observed surge in slaveholdings among the RMC in cotton areas were a pure wealth effect of the cotton boom, we would have expected most slaves to be women, as in cities where women constituted the vast majority of slaves. Instead, the vast majority of slaves of the RMC in cotton areas in the 1868 census were men in working age. Third, according to the 1848 and 1868 censuses that were digitized by Saleh (2013), although there was a sizeable free Sudanese population in urban provinces, the vast majority of Sudanese people in rural provinces were brought in as slaves (Saleh 2023).¹² Fourth, we use the (district-level) 1882 census, instead of the (individual-level) 1868 census, because the 1882 census is available for all provinces, whereas the 1868 census is missing for eight (out of 14) rural provinces.

Cotton Production by the Landed Elite and the Rural Middle Class: Both the LE and RMC held significant shares of cotton output in the precolonial period that would enable them – in principle – to disrupt cotton production. The 1877 Statistical Yearbook provides partial information on the share of the LE. It records for 13 out of 46 cotton-growing districts the cotton area and output for Khedival estates (*taftish*) separately from all other (non-Khedival) land. This enables us to calculate the share of Khedival estates in cotton area and output – a lower bound on the share of large estates. Within these 13 districts, the share of Khedival estates in the top two districts in terms of cotton output – that produced 10.4% of Egypt's cotton – was at 3% and 14% of the district's cotton output, respectively.¹³

¹¹The fact that the cotton boom-induced rise in slaveholdings in cotton-producing areas was attributable to the RMC was first documented qualitatively by Helal (1999) and Cuno (2009). The fact that the LE did not respond to the cotton boom by increasing their slaveholdings, but rather on the local peasantry was first documented by Saleh (2023) based on the 1848 and 1868 censuses. Saleh (2023) argues that the employment of local peasants in large estates was via state coercion, because the legal type distribution of large estates shifted between 1848 and 1868 towards *jifliks* – a particular form of large estates that was possible to establish on tax-paying usufruct land, and not only on land in tax arrears or default as was the case with other types of large estates. We also observe a positive effect of the cotton boom on the number of soldiers in large estates.

¹²The observed number of Sudanese in rural provinces in the 1882 census (149,312; 2.5 percent of the population) is close to the estimated number of slaves in rural provinces in the 1868 census (144,592; 2.9 percent), which boosts our confidence in using the 1882 census figures on the Sudanese population as a measure of the number of ex-slaves.

¹³These 13 districts are not representative of cotton-growing districts, though, as they are concentrated at the lower tail of cotton productivity, holding only 9.5% of Egypt's cotton area and producing 11.9% of cotton output. Apart from the top two districts, the shares of large estates in the other 11 districts – that produced only 1.5% of Egypt's cotton – are much higher: 0% (1 district), 22% (1), 24% (1), 56% (1), 96% (1), and 100% (6). This

Owen (1969) provides a higher estimate for large estates in cotton output at about 30 percent. We do not directly observe the share of the RMC in cotton output. However, the cotton boom led the RMC to substantially increase their imported slaveholdings who were employed in cotton production, suggesting a rise in their cotton output share.

A8: PRECOLONIAL AND COLONIAL PARLIAMENT AND ELECTORAL LAWS

Unicameral and Bicameral Periods: The dates of parliamentary sessions during the unicameral periods are: 1824–1837 (*al-majlis al-‘ali*), 1866–1869, 1870–1873, 1876–1879 (*majlis shura al-nuwwab*), 1881–1882 (*majlis al-nuwwab al-misri*), 1913–1923 (*al-jam‘iya al-tashri‘iya*). The dates of parliamentary sessions during the bicameral period for the Upper House (*majlis shura al-qawanin*) are: 1883–1890, 1890–1895, 1896–1901, 1902–1907, 1908–1913, and for the Lower House (*al-jam‘iya al-‘umumiya*) are: 1885–1889, 1891–1894, 1896–1899, 1902–1907, 1909–1912. We unified the session dates during the bicameral period to be 1883–1890, 1890–1895, 1895–1901, 1901–1907, 1907–1913.

Electoral Laws: A comparative analysis of precolonial and colonial electoral laws illustrates the degree to which the colonial administration altered the precolonial parliament. Table A8.16 and Table A8.17 compare the characteristics of the original organic law of 1866, a ratified constitution in 1882, and the colonial organic law from 1883 that repealed the reformist 1882 constitution and abolished the parliamentary oversight of the executive. While the 1882 constitution was ultimately not implemented, it shows what Egypt’s legislative system would have been had the British not invaded that year.

Lord Dufferin’s 1883 bicameral legislature favored the LE in several ways. The Legislative Council, or upper house (UH) included both appointed and elected officials. Compared to precolonial parliaments, the number of elected delegates was reduced from 75 in 1866 to 60 in 1883, with 14 elected members of the UH and 46 in the LH. The result of these changes was a much less representative body that was intentionally designed to favor the LE. Dufferin said appointments to the UH would explicitly favor the landed class: “The advantages of a nominated element are obvious. It would secure the presence in this department of business of a certain number of distinguished men, whose experience, social station, and antecedents may have entitled them to the confidence of the Chief of State [...]” (Foreign Office 1883, no. 56, p. 95). Appointees were allowed to hold their positions for life, reducing turnover and privileging the LE who were more likely to be appointed.

TABLE A8.16. Changes in Legislative Structure, 1866, 1882, and 1883

	1866	1882	1883
Rural Provinces	13	14 (plus tribes, plus Sudan)	14
Urban Provinces	5	9	7
N Houses	1	1	2
N Delegates	75	115	72
N Elected	75	115	60 (14 in the Legislative Council, 46 in the General Assembly)
N Appointed	2	1	12
Who Appointed?	President and Vice President	President of the council (chosen by the Khedive from among three elected MPs nominated by the body (internal election))	President, VP, 11 Legislative Council Members. Appointees are permanent.
Term Length	3 years	5 years	5 years

suggests the Khedival estates introduced cotton production into districts that did not produce any cotton before, especially in Upper Egypt.

The second set of changes introduced by the British to control representation in the legislature involved the electoral process. Appendix Table A8.17 lists the eligibility requirements for the electorate and candidates under each electoral law from 1866 to 1883. The elections in 1866 were one-stage elections where the electorate directly elected MPs. The elections became two-stage elections in 1882 and 1883, where eligible citizens elected electors, who in turn elected delegates. The 1866 electoral law restricted the electorate to village headmen in rural provinces and urban notables in urban provinces. The electors in rural provinces used a secret ballot to directly elect delegates. Members of the military, bureaucrats, individuals employed by a foreign entity, or serving mayors were not eligible to serve as delegates. The original intent of the parliament under Khedive Ismail was to collect information about the conditions in the periphery as a way to target policies. The RMC were favored by design.

The 1882 electoral law, designed with heavy input from RMC MPs, however, showed clear signs of broadening representation to other strata of the middle class and imposing meaningful constraints on the Khedival regime. In this constitution, the electorate expanded to every Egyptian who was at least 21 years old, and who paid at least 500 piasters per year in taxes. It also included the following categories, even if they did not meet the minimum tax threshold: Muslim, Christian, and Jewish religious leaders, teachers, secondary school graduates, military or government officers (retired, in reserve, or active duty), lawyers, doctors, and engineers. Members of the electorate must have been resident for a minimum of ten years in their district. These provisions heavily favored the rural and urban middle class by imposing minimum tax limits, but constituted a liberalizing departure from the 1866 electoral law particularly given the expansion of the franchise, with the additional requirements that candidates be at least 25 years old and be proficient in reading and writing.

The 1883 introduced new eligibility criteria for the electorate and candidates that systematically biased the electoral system in favor of LEs. In order to be considered for election, candidates for the UH or LH must have paid a minimum of 2000 or 5000 piastres in annual property taxes in their constituency province, respectively. Notably, the more selective and powerful UH had a lower tax minimum, because candidates were effectively pre-screened through their selection to Provincial Councils, and only other Provincial Counselors could vote for them. The LH had a higher tax minimum that would prevent non-LEs from accessing office, whereas LEs were the default in the UH due to the Provincial Council participation requirement. As a result, colonial elections were less competitive than precolonial elections and were more likely to favor incumbents. Collins (1984, p. 213–14) corroborates this bias in his examination of an incomplete set of property records for members of both houses from 1876 to 1907. Collins (1984) found that the members of the UH held much larger landholdings than members of the LH, and that members who served in multiple sessions generally had more land than single-session members.

Colonial election laws also contained direct measures to exclude the RMC from participating, both in 1883 and later in the colonial period. The 1883 law banned individuals who were exiled, convicted, or surveilled by the police. In practice, these new provisions prevented anyone implicated in the ‘Urabi revolution or in anti-colonial activity from serving, including a number of precolonial RMC MPs. The British strengthened the institutional exclusion of the RMC in the 1890s by becoming directly involved in the selection of village headmen. Before 1894, the Ministry of Interior (MoI) was under Egyptian control and the ‘umdas (headmen/mayors) were locally appointed or elected. Chalcraft (2005) notes variation in accounts of local electoral practices based on Ministry of Interior, colonial, and parliamentary records. In 1894, British officer Elton Gorst took over the MoI to reform the process of tax collection, “reduce banditry,” and improve local bureaucracy related to cotton production (Brown 1990; Tollefson 1990). In 1895, the MoI implemented a new law that abolished village selection of headmen, codified the central appointment of ‘umda, and reduced the number of ‘umda to one per village. They also created new requirements for the ‘umda position, including landownership of a

minimum of 10 feddans – a relatively large holding during this period – and literacy (Tollefson Jr. 1987). The introduction of law led to the replacement of over 500 headmen across Lower and Upper Egypt (Tollefson Jr. 1987). As a result, the government effectively controlled the selection of both the electorate and the candidates for both houses of parliament.

In sum, we expect that the increase in parliamentary appointments and changes to the electoral law favored LEs more than under the precolonial status quo. We expect these effects to be particularly strong in economically productive regions that were critical to the British colonial mission and logic of indirect rule in the Egyptian case.

TABLE A8.17. Ratified Electoral Laws in Egypt, 1866 to 1883

	1866	1882	1883
Legislative Oversight	No	Yes	No
Electorate Eligibility			
– Election Method	In rural provinces, a secret ballot by headmen. In urban provinces, consensus among urban notables.	Electorate elects the electors (who must be at least 25 years old and are among the electorate of the district).	Rural provinces, electorate elects electors. Electors meet in the province center and elect delegates. Separate rules for urban candidates.
– Minimum Age		21	20
– Literacy	After the 11th election, must be able to read and write		None
– Residence		Resident in the district for 10 years.	Electoral list: 3 years residence in village before registration of list. Votes for an elector delegate from each village. Elector Delegates vote for (1) Provincial Councils, and (2) General Assembly MPs. Members of Provincial Councils vote one of their number to the Legislative Council.
– Tax		Pays all taxes owed equal to 500 piastres per year	None
– Other	Must be among those with property, cannot be bankrupt, or a former convict.	1) Ulama 2) Priests and other Christian spiritual leaders 3) Jewish rabbis 4) Teachers, civil officials, secondary school graduates 5) Royal office holders, whether they are employed or retired 6) Military officers, whether active duty, reserved, or retired 7) Registered advocates 8) Doctors and engineers Barred: foreigners. Those who lack civil or political rights (i.e., imprisoned, exiled, hard labor sentence, conviction of a felony, treason, theft, fraud, graft, or religious infractions, or officially barred from public service by the state. Convicted violators of the election law. Debtors. Owners of or workers in gambling establishments or brothels.	Barred from Electoral list if member of military or bureaucracy, bankrupt, convict, exiled, surveilled by police, corvee laborer, deported, imprisoned. Can only vote for Legislative Council if a member of a Provincial Council.
Candidate Eligibility			
– Minimum Age	25	25	30
– Literacy	After the 7th election, must be able to read and write	Read and write proficiently	Must be able to read and write
– Residence	In rural districts, local headmen are the candidates. Cannot be military, bureaucracy, employed by a foreign entity, or a current mayor or headman.	Same as electorate	Same as electoral list.
– Tax		Same as electorate	Provincial Council/Legislative Council: 2,000 piastres property tax in the province. General Assembly: Must have paid a minimum 5,000 piastres property tax in the province
– Other	Described as sane and known to the government as an Egyptian citizen.	Same as electorate	Provincial Council: Elector Delegate. Legislative Council: Member of Provincial Council. General Assembly: Must have been an elector for the last 5 years in the district
– Barred If	Bankrupt, "needy poor", taken up position only one year prior, convicts	Same as electorate	Military, bureaucracy, or foreign employ.

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