**Supplementary Materials for “The Making of the Modern State: Social Scientization and Education Legislation in the United Kingdom, 1800–1914”**

Daniel Scott Smith

*Purpose*

These materials contain the results of auxiliary and robustness analyses that supplement the analyses and interpretations reported in the main text.

*Contents*

* Table S1: Descriptive Statistics of Independent Variables.
* Table S2: Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization as the Question Predictor, 1804–1914.
* Table S3: Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization and Scientization as the Question Predictors, 1804–1914
* Table S4: Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization as the Question Predictor, 1804–1914
* Enumerated list of all UK parliamentary acts titularly related to schooling and education, 1800–1914 (the dependent variable).

**Table S1**

*Descriptive Statistics of Independent Variables (scale)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Measure | Source | N | Mean | SD | Min. | Max. |
| *Indicators of Social Scientization* |  |  |  |  |  |  |
|  States with statistics agency (%) | 1 | 10,135 | 56.49 | 26.19 | 21.05 | 100 |
|  States with statistics yearbook (%) | 1 | 10,135 | 18.38 | 24.78 | 0 | 77.27 |
|  States ever conducted census (%) | 1 | 10,135 | 51.74 | 25.41 | 18.18 | 95.65 |
|  Universities across the West (N) | 1 | 10,135 | 559.2 | 357.6 | 167 | 1,497 |
|  International social scientific congresses (N) | 2 | 10,135 | 2.515 | 5.240 | 0 | 40 |
|  UK has statistics agency (0/1) | 1 | 10,135 | 0.664 | 0.472 | 0 | 1 |
|  UK has statistics yearbook (0/1) | 1 | 10,135 | 0.488 | 0.500 | 0 | 1 |
|  UK censuses (cum. N) | 1 | 10,135 | 5.607 | 2.942 | 1 | 12 |
|  International social scientific congresses in UK (N) | 2 | 10,135 | 0.241 | 0.590 | 0 | 4 |
|  Statistics journals (N) | 3 | 10,135 | 440.6 | 532.6 | 11 | 2,152 |
|  Social science journals (N) | 3 | 10,135 | 166.5 | 212.6 | 4 | 854 |
|  Active research committees in BAAS (N) | 4 | 10,135 | 19.80 | 18.83 | 0 | 62 |
|  Number of fellows in the Royal Statistics Society (N) | 5 | 10,135 | 383.7 | 328.7 | 0 | 1,063 |
|  Social Scientization (Index) | 1–5 | 10,135 | -0.244 | 0.876 | -1.250 | 1.839 |
|  |  |  |  |  |  |  |
| *Indicators of Development & Conflict* |  |  |  |  |  |  |
|  UK Agricultural output (Index: 100 = 1700) |  | 10,135 | 305.4 | 53.80 | 202.7 | 409.4 |
|  UK adults who can vote (%) | 1 | 10,135 | 12.64 | 11.24 | 2.500 | 35 |
|  UK life expectancy (years) | 1 | 10,135 | 42.29 | 2.994 | 37.30 | 54.50 |
|  UK in International Conflict (0/1) | 1 | 10,135 | 0.0207 | 0.143 | 0 | 1 |
|  States in International Conflict (%) | 1 | 10,135 | 8.037 | 6.676 | 0 | 40.91 |
|  Development (Index) | 1 | 10,135 | -0.225 | 0.868 | -1.013 | 1.556 |

*Note*. Each measure is observed 10,135 times, reflecting the total number of acts, which are the unit of analysis in the models reported in Table 1.

*Sources*:

1. Coppedge, M., Gerring, J., Knutsen, C., Lindberg, S., Teorell, J., Altman, D., Bernhard, M., Fish, M., Glynn, A., Hicken, A., Lührmann, A., Marquardt, K., McMann, K., Paxton, P., Pemstein, D., Seim, B., Sigman, R., Skaaning, S.-E., Staton, J., … Ziblatt, D. (2020). *V-Dem Codebook v10*. Varieties of Democracy (V-Dem) Institute.
2. UIA. (1960). *Les congrès internationaux de 1681 à 1899 liste complète / International congresses 1681 to 1899 Full List*. Union of International Associations. UIA. (1964). *Les congrès internationaux de 1900 à 1919 liste complète / International congresses 1900 to 1913 Full List*. Union of International Associations.
3. OCLC WorldCat. (2021). *What is WorldCat?* WorldCat. <https://www.worldcat.org/whatis/>
4. MacLeod, R., & Collins, P. J. (1981). *The Parliament of science: The British Association for the advancement of science, 1831-1981*. Science Reviews.
5. Rosenbaum, S. (1984). The Growth of the Royal Statistical Society. *Journal of the Royal Statistical Society. Series A (General)*, *147*(2), 375–388. <https://doi.org/10.2307/2981692>; Mouat, F. J. (1885). History of the Statistical Society of London. *Journal of the Statistical Society of London*, 14–371.

#### Table S2

Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization as the Question Predictor, 1804–1914

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Nationalization  | 1.336\*\*\* | 1.286\*\*\* | 1.246\*\* | 1.264\*\*\* | 1.245 | 1.245 |
|  | (0.066) | (0.075) | (0.119) | (0.077) | (0.167) | (0.170) |
|  |  |  |  |  |  |  |
| Post-1833 | 2.992\*\* | 3.316\*\* | 3.539\*\* | 2.509\* | 3.428\*\* | 3.436\*\* |
|  | (1.403) | (1.579) | (1.776) | (1.377) | (1.690) | (1.704) |
| *N* education acts | 1.117\*\* | 1.105\* | 1.111\* | 1.100\* | 1.106\* | 1.106\* |
|  | (0.059) | (0.060) | (0.062) | (0.060) | (0.060) | (0.060) |
|  |  |  |  |  |  |  |
| UK in armed conflict  |  | 1.968 | 1.946 | 2.257 | 1.942 | 1.941 |
|  |  | (1.447) | (1.431) | (1.688) | (1.430) | (1.430) |
| % states in conflict  |  | 0.974 | 0.974 | 0.972 | 0.975 | 0.975 |
|  |  | (0.018) | (0.018) | (0.018) | (0.018) | (0.018) |
|  |  |  |  |  |  |  |
| UK life expectancy  |  |  | 1.015 |  |  |  |
|  |  |  | (0.037) |  |  |  |
| UK industrialization  |  |  |  | 1.003 |  |  |
|  |  |  |  | (0.003) |  |  |
| % UK Pop. with vote  |  |  |  |  | 1.005 |  |
|  |  |  |  |  | (0.020) |  |
| Index of Development  |  |  |  |  |  | 1.070 |
|  |  |  |  |  |  | (0.272) |
|  |  |  |  |  |  |  |
| Constant | 0.004\*\*\* | 0.005\*\*\* | 0.002\*\*\* | 0.002\*\*\* | 0.004\*\*\* | 0.005\*\*\* |
|  | (0.002) | (0.002) | (0.004) | (0.002) | (0.003) | (0.002) |
| N Parliamentary Acts | 10,135 | 10,135 | 10,135 | 10,135 | 10,135 | 10,135 |

*Note*. The question predictor, nationalization, describes West-wide processes of state nationalization, excluding the UK, as visualized in Figure 3.

#### Table S3

Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization and Scientization as the Question Predictors, 1804–1914

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Nationalization  | 0.994 | 1.018 | 0.983 | 0.920 | 1.025 | 1.025 |
|  | (0.214) | (0.220) | (0.226) | (0.207) | (0.223) | (0.222) |
| Scientization | 1.930 | 1.708 | 2.043 | 2.048 | 1.859 | 1.899 |
|  | (0.903) | (0.816) | (1.288) | (1.006) | (1.016) | (1.059) |
|  |  |  |  |  |  |  |
| Post-1833 | 3.421\*\* | 3.663\*\*\* | 3.455\*\* | 2.558\* | 3.540\*\* | 3.507\*\* |
|  | (1.664) | (1.801) | (1.768) | (1.436) | (1.779) | (1.771) |
| *N* education acts | 1.129\*\* | 1.116\*\* | 1.112\* | 1.115\*\* | 1.117\*\* | 1.117\*\* |
|  | (0.061) | (0.061) | (0.062) | (0.062) | (0.061) | (0.061) |
|  |  |  |  |  |  |  |
| UK in armed conflict  |  | 1.937 | 1.959 | 2.339 | 1.969 | 1.977 |
|  |  | (1.423) | (1.440) | (1.753) | (1.451) | (1.457) |
| % states in conflict  |  | 0.978 | 0.980 | 0.976 | 0.979 | 0.979 |
|  |  | (0.018) | (0.018) | (0.018) | (0.018) | (0.018) |
|  |  |  |  |  |  |  |
| UK life expectancy  |  |  | 0.979 |  |  |  |
|  |  |  | (0.048) |  |  |  |
| UK industrialization  |  |  |  | 1.005 |  |  |
|  |  |  |  | (0.003) |  |  |
| % UK Pop. with vote  |  |  |  |  | 0.993 |  |
|  |  |  |  |  | (0.022) |  |
| Index of Development  |  |  |  |  |  | 0.896 |
|  |  |  |  |  |  | (0.268) |
|  |  |  |  |  |  |  |
| Constant | 0.004\*\*\* | 0.004\*\*\* | 0.011\*\* | 0.001\*\*\* | 0.005\*\*\* | 0.005\*\*\* |
|  | (0.002) | (0.002) | (0.025) | (0.001) | (0.003) | (0.002) |
| N Parliamentary Acts | 10,135 | 10,135 | 10,135 | 10,135 | 10,135 | 10,135 |

*Note*. The two question predictors, nationalization and scientization, form the composite model tested in Table 2.

#### Table S4

Logistic Regression Results (Odds Ratios) Explaining the Odds that a Parliamentary Act was Related to Schooling or Education with Nationalization as the Question Predictor, 1804–1914

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Scientization  | 1.733\*\*\* | 1.595\*\*\* | 1.657\* | 1.563\*\*\* | 1.906\*\* | 1.946\*\* |
|  | (0.189) | (0.201) | (0.464) | (0.200) | (0.577) | (0.615) |
|  |  |  |  |  |  |  |
| Post-1833 | 3.270\*\*\* | 3.593\*\*\* | 3.491\*\*\* | 2.492\* | 3.406\*\*\* | 3.361\*\*\* |
|  | (1.339) | (1.468) | (1.547) | (1.250) | (1.399) | (1.389) |
| *N* education acts | 1.110\* | 1.098\* | 1.096 | 1.093 | 1.099\* | 1.099\* |
|  | (0.060) | (0.061) | (0.062) | (0.060) | (0.059) | (0.059) |
| Parliamentary Debate | 1.959 | 2.005 | 1.975 | 1.914 | 2.105\* | 2.106\* |
|  | (0.930) | (0.894) | (0.926) | (0.843) | (0.948) | (0.944) |
|  |  |  |  |  |  |  |
| UK in armed conflict  |  | 1.879\*\* | 1.889\*\* | 2.226\*\* | 1.934\*\* | 1.943\*\* |
|  |  | (0.555) | (0.572) | (0.766) | (0.581) | (0.587) |
| % states in conflict  |  | 0.977 | 0.977 | 0.975\* | 0.977 | 0.977 |
|  |  | (0.015) | (0.014) | (0.015) | (0.015) | (0.015) |
|  |  |  |  |  |  |  |
| UK life expectancy  |  |  | 0.993 |  |  |  |
|  |  |  | (0.042) |  |  |  |
| UK industrialization  |  |  |  | 1.004 |  |  |
|  |  |  |  | (0.003) |  |  |
| % UK Pop. with vote  |  |  |  |  | 0.987 |  |
|  |  |  |  |  | (0.022) |  |
| Index of Development  |  |  |  |  |  | 0.829 |
|  |  |  |  |  |  | (0.248) |
|  |  |  |  |  |  |  |
| Constant | 0.003\*\*\* | 0.003\*\*\* | 0.005\*\*\* | 0.001\*\*\* | 0.004\*\*\* | 0.003\*\*\* |
|  | (0.001) | (0.001) | (0.009) | (0.001) | (0.002) | (0.001) |
| N Parliamentary Acts | 9,957 | 9,957 | 9,957 | 9,957 | 9,957 | 9,957 |

*Note*. The additional control, parliamentary debate, is the average emphasis on the LDA topic related to schooling and education in a given year. N’s change in these models because parliamentary data only go back until 1803; there are 3 years missing.

**All UK Parliamentary Acts Titulary Related to Schooling and Education, 1800–1914**

1. Parochial Schools (Scotland) Act 1803
2. Education (Ireland) Act 1806
3. Londonderry School Act 1808
4. School Sites (Ireland) Act 1810
5. Endowed Schools Act 1813
6. Endowed Schools Act 1822
7. Endowed Schools (Ireland) Act 1830
8. Sites for Schoolrooms Act 1836
9. Highland Schools Act 1838
10. Grammar Schools Act 1840
11. Royal Naval School Act 1840
12. School Sites Act 1841
13. School Sites Act 1844
14. Teachers of Schools (Ireland) Act 1844
15. Parish Schoolmasters (Scotland) Act 1845
16. Royal Naval School Act 1845
17. Poor Law (Schools) Act 1848
18. School Sites Act 1849
19. School Districts Act 1850
20. School Sites Act 1851
21. Royal Naval School Amendment Act 1851
22. School Sites Act 1852
23. Reformatory Schools (Scotland) Act 1854
24. Parochial Schoolmaster (Scotland) Act 1854
25. Education of Pauper Children Act 1855
26. Endowed Schools Inquiries (Ireland) Act 1855
27. School Grants Act 1855
28. Reformatory, etc., Schools Act 1856
29. Education Dept Act 1856
30. Reformatory Schools (Scotland) Act 1856
31. Moulton Endowed School Act 1856
32. Industrial Schools Act 1857
33. Parochial Schoolmasters (Scotland) Act 1857
34. Reformatory Schools (England) Act 1857
35. Reformatory Schools (Ireland) Act 1858
36. Industrial Schools Act 1860
37. Royal Naval School Act 1860
38. Endowed Schools Act 1860
39. Industrial Schools Act 1861
40. Parochial and Burgh Schoolmasters (Scotland) Act 1861
41. Industrial Schools (Scotland) Act 1861
42. Industrial Schools, 1861 Acts Continuance Act 1862
43. Poor Law (Certified Schools) Act 1862
44. Coventry Grammar School Act 1864
45. Public Schools Act 1864
46. Reformatory Schools Act 1866
47. Industrial Schools Act 1866
48. School of Physic (Ireland) Amendment Act 1867
49. Endowed Schools Act 1868
50. Industrial Schools (Ireland) Act 1868
51. Public Schools Act 1868
52. Irish Reformatory Schools Act 1868
53. Public Schools Act 1869
54. Sunday and Ragged Schools (Exemption from Rating) Act 1869
55. Endowed Schools Act 1869
56. Public Schools Act 1870
57. Elementary Education Act 1870
58. Elementary Education (Election) Act 1871
59. Public Schools Act 1871
60. Public Parks, Schools, and Museums Act 1871
61. Elementary Education Act Amendment Act 1872
62. Reformatory and Industrial Schools Acts Amendment Act 1872
63. Public Schools Act 1872
64. Elementary Education (Elections) Act 1872
65. Education (Scotland) Act 1872
66. Endowed Schools (Time of Address) Act 1873
67. Highland Schools Act 1873
68. Elementary Education Act 1873
69. Public Schools (Shrewsbury and Harrow Schools Property) Act 1873
70. Public Schools (Eton College Property) Act 1873
71. Endowed Schools Act 1874
72. Elementary Education (Wenlock) Act 1874
73. Public Works Loan (School Loans), Act 1874
74. Elementary Education (Orders) Act 1874
75. Endowed Schools (Vested Interests) Act Continuance Act 1875
76. National School Teachers Residences (Ireland) Act 1875
77. National School Teachers (Ireland) Act 1875
78. Elementary Education Act 1876
79. Board of Education (Scotland) Act 1877
80. Intermediate Education (Ireland) Act 1878
81. Education (Scotland) Act 1878
82. Endowed School Acts Continuance Act 1879
83. National School Teachers (Ireland) Act 1879
84. Elementary Education (Industrial Schools) Act 1879
85. University Education (Ireland) Act 1879
86. Industrial Schools Act Amendment Act 1880
87. Elementary Education Act 1880
88. Leases for Schools (Ireland) Act 1881
89. Intermediate Education (Ireland) Act 1882
90. Public Schools (Scotland) Teachers Act 1882
91. Educational Endowments (Scotland) Act 1882
92. Education (Scotland) Act 1883
93. National School Teachers Amendment (Ireland) Act 1884
94. Loans for Schools and Training Colleges (Ireland) Act 1884
95. Reformatory and Industrial Schools (Manx Children) Act 1884
96. Industrial Schools (Ireland) Act 1885
97. Educational Endowments (Ireland) Act 1885
98. School Boards Act 1885
99. Technical Schools (Scotland) Act 1887
100. Welsh Intermediate Education Act 1889
101. Education Code (1890) Act 1890
102. Education of Blind and Deafmute Children (Scotland) Act 1890
103. Army Schools Act 1891
104. Schools for Science and Art Act 1891
105. Elementary Education Act 1891
106. Reformatory and Industrial Schools Act 1891
107. Education and Local Taxation Account (Scotland) Act 1892
108. Irish Education Act 1892
109. Boards of Management of Poor Law District Schools (Ireland) Act 1892
110. Elementary Education (School Attendance) Act (1893) Amendment Act 1899
111. Reformatory Schools (Scotland) Act 1893
112. Elementary Education (School Attendance) Act 1893
113. Elementary Education (Blind and Deaf Children) Act 1893
114. Reformatory Schools Act 1893
115. Day Industrial Schools (Scotland) Act 1893
116. Irish Education Act 1893
117. Industrial Schools Acts Amendment Act 1894
118. Reformatory and Industrial Schools (Channel Islands Children) Act 1895
119. School Board Conference Act 1897
120. Elementary Education Act 1897
121. Education (Scotland) Act 1897
122. Voluntary Schools Act 1897
123. Elementary School Teachers (Superannuation) Act 1898
124. Board of Education Act 1899
125. Elementary Education (Defective and Epileptic Children) Act 1899
126. Reformatory Schools Act 1899
127. Elementary School Teachers Superannuation (Jersey) Act 1900
128. Elementary School Teachers Superannuation (Isle of Man) Act 1900
129. Intermediate Education (Ireland) Act 1900
130. Elementary Education Act 1900
131. Education (Scotland) Act 1901
132. Education Act 1901, (Renewal) Act 1902
133. Education Act 1901
134. Education Act 1902
135. Education (London) Act 1903
136. Elementary Education Amendment Act 1903
137. Education (Provision of Working Balances) Act 1903
138. Poor Law (Dissolution of School Districts and Adjustments) Act 1903
139. Education (Local Authority Default) Act 1904
140. Education of Defective Children (Scotland) Act 1906
141. Education (Provision of Meals) Act 1906
142. Education (Administrative Provisions) Act 1907
143. Education (Scotland) Act 1908
144. Endowed Schools (Masters) Act 1908
145. Local Education Authorities (Medical Treatment) Act 1909
146. Education (Administrative Provisions) Act 1909
147. Duke of York's School (Chapel) Act 1910
148. Education (Choice of Employment) Act 1910
149. Education (Administrative Provisions) Act 1911
150. Elementary School Teachers (Superannuation) Act 1912
151. Education (Scotland) Act 1913
152. Intermediate Education (Ireland) Act 1913
153. Education (Scotland) (Glasgow Electoral Divisions) Act 1913
154. Education (Provision of Meals) Act 1914
155. Education (Provision of Meals) (Ireland) Act 1914
156. Education (Scotland) (War Service Superannuation) Act 1914
157. Elementary Education (Defective and Epileptic Children) Act 1914
158. Intermediate Education (Ireland) Act 1914
159. Education (Scotland) (Provision of Meals) Act 1914
160. Elementary School Teachers (War Service Superannuation) Act 1914