

Meritocracy with Multiple Rules: How Special Civil Service Examinations Reproduced Privilege in Joseon Korea

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Online Appendix

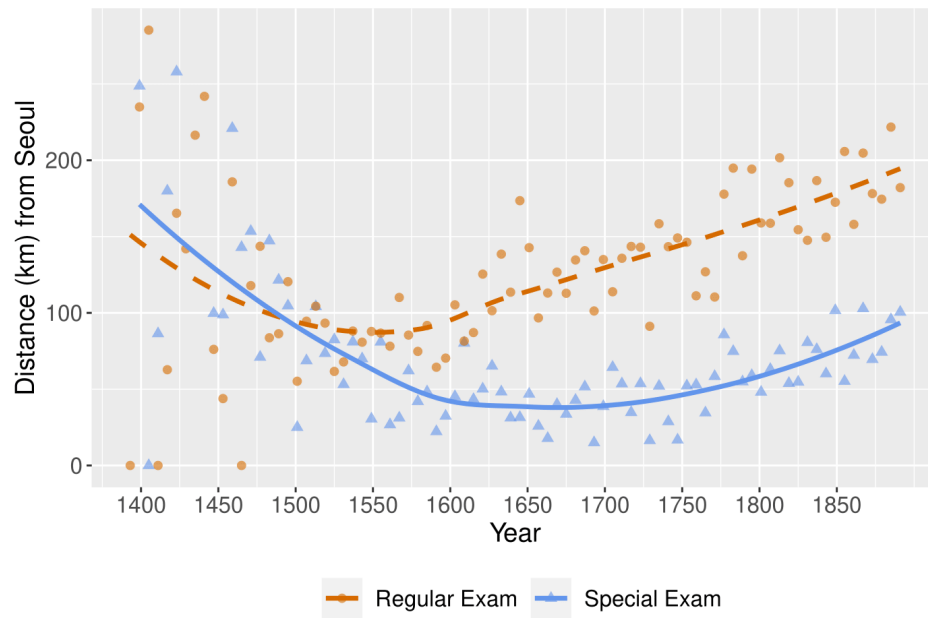
Distance from Seoul and Passing Regular and Special Examinations

An additional piece of family background information from our dataset is the residential location. The civil-service examination roster records information on 330 villages that applicants reported as their places of residence. We recode these locations into latitude and longitude coordinates and calculate their Euclidean distance from Seoul (i.e., the straight-line distance from each residential area to Seoul), which serves as the dependent variable. One limitation is that information on residential areas contains a substantial number of missing cases, particularly from the early Joseon period. After excluding missing data, the sample size is reduced from 14,258 to 10,250. An additional complication involves residential reporting. It remains unclear whether applicants reported their permanent residence or a temporary address prior to the examination. Therefore, the results of this analysis should be interpreted with caution.

With these caveats in mind, we first examine the descriptive pattern. Supplementary Figure 1 shows that the distance between examination passers' residential areas and Seoul follows a U-shaped pattern. Importantly, before the 16th century, there seems to be no clear difference between regular and special examination passers. Since then, the distance for

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regular examination passers became greater than that for special examination passers. In the regression model, the average distance of the residential area from Seoul is 57 km shorter for special examination passers than for regular examination passers, as shown in Supplementary Table 1. In Model 3, when the interactions between examination types and centuries are added, the main coefficients of centuries, which indicates the distance for regular examinations, tend to increase with time. This suggests that regular examination passers are increasingly coming from locations farther away from Seoul. Contrary to the main coefficient, the interaction terms are increasingly negative with time. Thus, the special examination passers are increasingly coming from locations closer to Seoul. In the 15th or earlier century, special examination passers lived in regions that were 30 km farther from Seoul than the passers of regular examinations. In the 19th century, however, the passers of special examinations lived in regions that were, on average, 19 km closer to Seoul compared to regular examination passers. Excluding Seoul residents from the analyses yields qualitatively the same findings.



Supplementary Figure 1: Changes in the Distance between Passers' Residential Area and Seoul by Examination Types, Joseon Korea, 1393-1894

Supplementary Table 1: OLS Regression of Distance (km) from Seoul to Examination Passers' Residential Area on Exam Type and Century, Joseon Korea, 1393–1894

	Model 1	Model 2	Model 3
(Ref: Regular Exam)			
Special Exam	−56.8*** (6.0)	−58.8*** (6.0)	30.0* (12.9)
(Ref: 15th or earlier Century)			
16th Century		−19.8 (15.2)	−1.0 (10.9)
17th Century		−6.0 (20.5)	28.7 (15.8)
18th Century		−6.1 (24.1)	40.6 (22.3)
19th Century		8.9 (23.9)	67.5* (27.4)
Interaction			
Special Exam × 16th Century			−48.6** (15.2)
Special Exam × 17th Century			−78.3*** (13.7)
Special Exam × 18th Century			−98.0*** (15.0)
Special Exam × 19th Century			−116.4*** (15.9)
R-squared	0.227	0.233	0.247
N	10,250	10,250	10,250

Note: Samples are limited to the passers whose residential regions are recoded. Control variables include passers' age, age variable missing, the number of exam passed ancestors, whether having the powerful family clan background, the number of passers in each exam, and the number of exams offered in six years. Numbers within parentheses are standard errors. Residential region clustered standard errors are reported.

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)