Appendix 1 Average Heights of male *Hangryu* Deceased aged 25–69 According to Birth Year and Age at Death

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 　 | 　 | 　 | 　 | Age at Death | 　 | 　 | 　 |
| 　 | 　 | 　 | 25–29 | 30–39 | 40–49 | 50–59 | 60–69 | Total |
| 　　　　　　　　　Birth Year　　　　　　　　　　　　　　 |  | 　 |  |  |  |  |  | 　 |
| 1850s | Height (cm) |  |  |  | 160.5 | 160.8 | 160.8 |
|  | Observation |  |  |  | 389 | 2,372 | 2,761 |
|  | 　 |  |  |  |  |  | 　 |
| 1860s | Height (cm) |  |  | 160.1 | 160.7 | 161.2 | 160.9 |
|  | Observation |  |  | 403 | 3,087 | 3,929 | 7,419 |
|  | 　 |  |  |  |  |  | 　 |
| 1870s | Height (cm) |  | 159.6 | 160.6 | 161.1 | 161.6 | 161.1 |
|  | Observation |  | 367 | 2,742 | 4,213 | 3,978 | 11,300 |
|  | 　 |  |  |  |  |  | 　 |
| 1880s | Height (cm) | 158.8 | 160.2 | 160.9 | 161.4 | 161.5 | 160.9 |
|  | Observation | 300 | 2,577 | 4,384 | 4,798 | 762 | 12,821 |
|  | 　 |  |  |  |  |  | 　 |
| 1890s | Height (cm) | 159.6 | 160.9 | 161.6 | 161.6 |  | 161.1 |
|  | Observation | 1,125 | 3,797 | 4,539 | 1,059 |  | 10,520 |
|  | 　 |  |  |  |  |  | 　 |
| 1900s | Height (cm) | 160.1 | 161.4 | 161.7 |  |  | 161.1 |
|  | Observation | 1,245 | 3,419 | 890 |  |  | 5,554 |
|  | 　 |  |  |  |  |  | 　 |
| 1910s | Height (cm) | 160.7 | 161.0 |  |  |  | 160.8 |
|  | Observation | 1,013 | 685 |  |  |  | 1,698 |
|  | 　 |  |  |  |  |  | 　 |
| Total | Height (cm) | 160.0 | 160.8 | 161.1 | 161.1 | 161.3 | 161.0 |
| 　 | Observation | 3,683 | 10,845 | 12,958 | 13,546 | 11,041 | 52,073 |

Source: *The Official Gazette of Government-General of Korea*

Appendix 2 Geography of Korea and Heights of Male *Hangryu* Deceased by Region

Colonial Korea consisted of 13 provinces, which are listed in Table A2-1 and illustrated in Figure A2-1. The table also categorizes them into North, Middle, and South, following the convention.

Table A2-1 Regions and Provinces in Colonial Korea

|  |  |
| --- | --- |
| Region | Province |
| North | Pyeongan nam-do, Pyeongan buk-do, Hamgyeong nam-do, Hamkyeong buk-do, Hwanghae-do |
| Middle | Gyeonggi-do, Gangwon-do, Chungcheong nam-do, Chungcheong buk-do |
| South | Jeolla nam-do, Jeolla buk-do, Gyeongsang nam-do, Gyeongsang buk-do |

Figure A2-1 Provinces of Colonial Korea, c.1921



Note: For simplicity, we combined the northern province (buk-do) and the southern province (nam-do) listed in Table A2-1. For example, “Pyongan” in the map is a merging of Pyongan buk-do and Pyongan nam-do.

Figure A2-2 provides the number of the male *Hangryu* Deceased for 13 Provinces and their correlation with the male population, and it shows that there is no systematic regional bias in geographical distribution. In the figure, Gyeonggi-do has a larger number of *Hangryu* Deceased than other provinces, considering population size. This can be explained by the fact that Gyeonggi-do has the largest city, Seoul, and the urban areas have more vagrants than the rural regions.

Figure A2-2 Total Number of Male *Hangryu* Deceased aged 25–69 and Male Population by Province (Thousand)



Note: The x-axis is average male population (thousand) from 1921 to 1930, and the y-axis is the total number of male *Hangryu* Deceased aged 25–69 from 1913 to 1945.

Sources: *the Official Gazette of Government-General of Korea* and *Statistical Yearbooks of Government-General of Korea*.

Table A2-2 decomposes the descriptive statistics of Table 1 by three regions (North, Middle, and South). Table A2-3 provides regression results by three regions, and (1) and (2) correspond to (1) and (4) of Table 2. The heights in all three regions generally show increasing trends, implying that the height growth in Table 2 is general rather than being driven by specific region. The level or growth shows differences across regions. Although interesting, due to the nature of the *Hangryu* Deceased, who migrated frequently, it is very difficult to infer differences of living standards by region from this information.

Table A2-2 Basic Statistics: Male *Hangryu* Deceased Aged 25–69 years by Region

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | North | Middle | South |
| obs | Mean | s.e. | obs | Mean | s.e. | obs | Mean | s.e. |
| Individual level data |  |  |  |  |  |  |  |  |  |
|  | Height (cm) | 12,479 | 161.6 | 5.5 | 20,637  | 160.8 | 5.3 |  18,597  | 160.9 | 5.4 |
|  | Birth, Age, Death |  |  |  |  |  |  |  |  |  |
|  |  | Year of Birth (year) | 12,479 | 1883 | 14.6 |  20,637  | 1884 | 14 |  18,597  | 1883 | 14 |
|  |  | Year of Death (year) | 12,479 | 1930 | 8.2 |  20,637  | 1930 | 8 |  18,597  | 1929 | 9 |
|  |  | Age at Death (year) | 12,479 | 47.4 | 12.1 |  20,637  | 46.5 | 11.8 |  18,597  | 46.5 | 11.8 |
|  | Identified | 12,479 | 0.40 | 0.49 |  20,637  | 0.37 | 0.48 |  18,597  | 0.32 | 0.46 |
|  | Non-Poverty Death | 12,479 | 0.16 | 0.37 |  20,637  | 0.12 | 0.33 |  18,597  | 0.09 | 0.29 |
| Regional level data |  |  |  |  |  |  |  |  |  |
|  |  | GDP per Capita (Won) | 140 | 89.6 | 28.2 |  112  | 80.6 | 27.7 | 112 | 77.8 | 11.3 |
| 　 | 　 | Male Death Rate(per thousand) | 105 | 40.4 | 5.6 | 84 | 45.0 | 7.5 | 84 | 55.6 | 10.3 |

Note: see note of Table 1 for definition of the variables.

Sources: See Table 1

Table A2-3 Heights of Male *Hangryu* Deceased Aged 25–69 According to Birth Year by Region

Dependent Variable = height (cm) of male *Hangryu* Deceased aged 25–69 years

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 　 | 　 | (1) | 　 | 　 | 　 | (2) | 　 |
| VARIABLES | North | Middle | South |  | North | Middle | South |
|  | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Birth Cohorts |  |  |  |  |  |  |  |
|  1850s | Reference |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  1860s | 0.715\*\*\* | 0.205 | 0.452\*\* |  | 0.339 | 0.216 | 0.543 |
|  | (0.158) | (0.362) | (0.166) |  | (0.204) | (0.315) | (0.331) |
|  1870s | 1.258\*\*\* | 0.653\* | 0.928\*\*\* |  | 0.640\*\* | 0.809\*\* | 0.784\*\* |
|  | (0.155) | (0.366) | (0.181) |  | (0.264) | (0.345) | (0.327) |
|  1880s | 1.846\*\*\* | 0.850\*\* | 1.463\*\*\* |  | 1.146\*\*\* | 1.330\*\*\* | 0.994\*\* |
|  | (0.193) | (0.392) | (0.169) |  | (0.376) | (0.388) | (0.370) |
|  1890s | 2.834\*\*\* | 1.580\*\*\* | 2.080\*\*\* |  | 2.009\*\*\* | 2.363\*\*\* | 1.510\*\*\* |
|  | (0.280) | (0.439) | (0.179) |  | (0.589) | (0.482) | (0.459) |
|  1900s | 3.694\*\*\* | 2.088\*\*\* | 2.438\*\*\* |  | 2.674\*\*\* | 2.931\*\*\* | 1.527\*\* |
|  | (0.287) | (0.478) | (0.198) |  | (0.670) | (0.561) | (0.557) |
|  1910s | 3.823\*\*\* | 2.162\*\*\* | 2.801\*\*\* |  | 2.792\*\* | 3.207\*\*\* | 2.473\*\*\* |
|  | (0.350) | (0.534) | (0.471) |  | (1.220) | (0.727) | (0.756) |
| ln(age) | 3.898\*\*\* | 2.880\*\*\* | 3.703\*\*\* |  | 3.338\*\*\* | 4.030\*\*\* | 2.745\*\*\* |
|  | (0.356) | (0.480) | (0.181) |  | (0.717) | (0.538) | (0.515) |
| ln(gdp per capita) |  |  |  |  | 0.446 | -0.121 | 2.588\*\*\* |
|  |  |  |  |  | (0.379) | (0.522) | (0.733) |
| ln(male death rate) |  |  |  |  | 0.940\*\* | -1.163\*\* | -0.0125 |
|  |  |  |  |  | (0.377) | (0.468) | (0.377) |
| Province Fixed Effect | No | No | No |  | Yes | Yes | Yes |
|  |  |  |  |  |  |  |  |
| Constant | 144.7\*\*\* | 148.8\*\*\* | 145.4\*\*\* |  | 142.1\*\*\* | 149.0\*\*\* | 138.1\*\*\* |
|  | (1.483) | (2.027) | (0.755) |  | (2.134) | (3.918) | (1.842) |
|  |  |  |  |  |  |  |  |
| Observations | 12,479 | 20,637 | 18,957 |  | 9,267 | 14,604 | 13,533 |
| R-squared | 0.016 | 0.011 | 0.016 | 　 | 0.012 | 0.012 | 0.013 |

Note: All standard errors are clustered at province by birth cohort level. Estimate (1) and (2) correspond to (1) and (4) of Table 2.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Sources: See Table 1

Appendix 3 Comparison between Identified and Unidentified male *Hangryu* Deceased.

Table A3-1 Basic Statistics: Identified and Unidentified male *Hangryu* Deceased, Aged 25 to 69 years.

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Identified | Unidentified | Total |
|  | Observations | 18,532 | 33,541 | 52,073 |
|  | Height (cm) | 161.5 | 160.7 | 161.0 |
|  | Birth, Age, Death |  |  |  |
|  |  | Year of Birth (year) | 1881 | 1884 | 1883 |
|  |  | Year of Death (year) | 1929 | 1930 | 1930 |
|  |  | Age at Death (year) | 48.2 | 45.9 | 46.7 |
|  | Non-Poverty Death | 0.07 | 0.15 | 0.36 |
| 　 | 　 |  |  |  |  |

Note: see note of Table 1 for definition of the variables.

Sources: See the Table 1

Table A3-2 Heights of Identified and Unidentified male *Hangryu* Deceased by Region

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 　 | Identified |  | Unidentified |  | Total | 　 | Share of Identified (%)　 |
|  | obs | Height (cm) |  | obs | Height(cm) |  | obs | Height(cm) | 　 |
| North | 4,988 | 161.9 |  | 7,491 | 161.3 |  | 12,479 | 161.6 |  | 40.0 |
| Middle | 7,555 | 161.3 |  | 13,082 | 160.5 |  | 20,637 | 160.8 |  | 36.6 |
| South | 5,989 | 161.4 |  | 12,968 | 160.6 |  | 18,957 | 160.9 |  | 31.6 |
| Total | 18,532 | 　 | 　 | 33,541 | 　 | 　 | 52,073 | 　 | 　 | 　 |

Sources: See Table 1