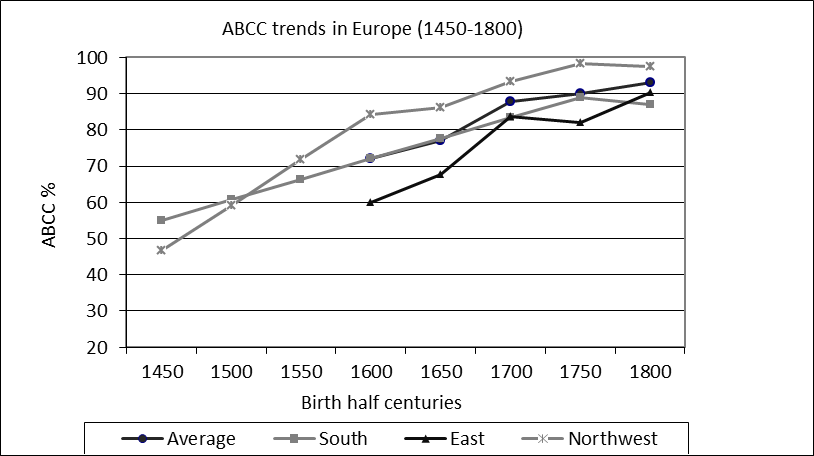
**Supplementary material**

**Appendix A**

**Appendix Figures:**

Figure A. 1: The Human Capital Revolution in Europe



Note: Values refer to half centuries of birth around the years noted. Evidence is based on A’Hearn, Baten and Crayen (2009), Table 4. We included all countries for which longer series or at least early values were available: “Northwest” comprises Great Britain, the Netherlands and protestant Germany, “South” refers to Italy (North). “East”, the average of Russia, Bohemia and Austria (from around 1600). “Average” is the average of these three regions. When values between the benchmark dates were missing, they were interpolated. Weak estimates (in italics in Table 4 of A’Hearn et al., 2009) were omitted. For Great Britain and the Netherlands before 1600, the benchmark year of Great Britain in 1600 was used, and the changes from Germany (protestant).

**Appendix Tables:**

Table A.1: Data and sources

|  |  |
| --- | --- |
| Inquisition Tribunals (years of court cases) | Source |
| Canary Islands  (1521 – 1819) | Data provided by Francisco Fajardo Spinola. See also: Fajardo Spinola, F. (2005), Las Víctimas de la Inquisición en las Islas Canarias, La Laguna: Universidad de La Laguna |
| Córdoba (1572-1745) | Gracia Boix, R. (1983), Autos de Fe y Causas de la Inquisición Española, Córdoba: Diputación Provincial |
| Cuenca (1521 – 1723) | National Historical Archive, Madrid (data provided by Sara Nalle) |
| Galicia (1641) | Contreras, J. (1982), El Santo Oficio de la Inquisición de Galicia, Madrid: Akal Universitaria |
| Granada (1577–1614) | Garcia Fuentes, J. M. (2006), Visitas de la Inquisicion al Reino de Granada, Granada: Editorial Universidad De Granada |
| Llerena (1695 – 1730) | Villanueva, J. P. and Bonet, B. E. (1984), Historia de la Inquisición en España y América, Tomo III, Madrid: Biblioteca de Autores Cristianos |
| Logroño (1609 – 1633) | Henningsen, G. (2004), The Salazar Documents, Inquisitor Alonso de Salazar Frías and Others on the Basque Witch Persecution, Leiden: Brill |
| Toledo (1577-1610) | Sierra, J. (2006), Procesos de la Inquisicion de Toledo (1575-1610).Manuscrito de Halle, Madrid: Ed. Trotta. |
| Évora, Coimbra, Lisboa  (1487 – 1894) | National Archive Torre do Tombo, Lisbon ª [ http://antt.dglab.gov.pt/]. |
| Comparison Sample  (census/death year) | **Source** |
| Catastro Badalona, 1717 | National Historical Archive Catalonia |
| Catastro Andalucía, 1750-53 | National Historical Archive, Madrid |
| Catastro Guadalajara, 1752 | National Historical Archive, Madrid |
| “Visitas” Coimbra | Arquivo Histórico Municipal de Coimbra |
| Padrones Arcos de la Frontera, Bornos, Medina Sidonia, Vejer de La Frontera, Tarifa, Villamartin, Acala de los Gazules, Chiclana 1641 | [FamilySearch.org] |
| Padrones Córdoba 1643, 1693, 1718, 1761 | [FamilySearch.org] |
| Padrón Cuevas de San Marcos 1705 | Diocesan Archive, Málaga |
| Padrón Málaga 1776 | Municipal Archive, Málaga |
| Padrones Écija 1573, 1645, 1704, 1775 | [FamilySearch.org] |
| Marriage registers Granada, 1630, 1680, 1730 | Diocesan Historical Archive, Granada |
| Padrones Jaén 1706, 1711 | [FamilySearch.org] |
| Padrón Loja 1750 | [FamilySearch.org] |
| Padrones Puerto de Santa María 1719, 1734, 1794 | [FamilySearch.org] |
| Padrones Carmona, Estepa, Osuna, Puebla de Cazalla, Utrera, Villafranca de la Marisma, Arahal, Fuentes, Marchena, Morón de la Frontera, Salteras 1641 | [FamilySearch.org] |
| Padrones Vera 1726, 1797 | Municipal Archive, Vera |
| Death registers Portugal, 1570-1799 | [FamilySearch.org] |
| Death registers Spain,  1570-1799 | [FamilySearch.org] |

Notes: ª For the data entry we thank Rosemarie Triebe.

Table A2: Determinants of non-heaping (i.e. those more likely to be numerate) in Spain and Portugal in logit regressions, death registers excluded

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Samples incl. | Only Portugal | | | | Only Spain | | | |
| Female | -17.45\*\*\* | -18.48\*\*\* | -18.97\*\*\* | -18.82\*\*\* | -5.26\*\*\* | -2.99\* | -2.51 | -14.15\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.001) | (0.082) | (0.135) | (0.000) |
| Age 23-32 | 15.32\*\*\* | 15.60\*\*\* | 15.72\*\*\* | 15.75\*\*\* | 9.39\*\*\* | 9.05\*\*\* | 9.16\*\*\* | 12.85\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Inquisition source | 20.48\*\*\* |  |  |  | 15.21\*\*\* |  |  |  |
|  | (0.000) |  |  |  | (0.000) |  |  |  |
| Judaism-accused |  | 22.80\*\*\* | 18.64\*\*\* | 8.41\*\*\* |  | 19.45\*\*\* | 17.63\*\*\* | 7.53\* |
|  |  | (0.000) | (0.000) | (0.000) |  | (0.000) | (0.000) | (0.073) |
| Elite crimes |  |  |  | 14.87\*\*\* |  |  |  | 13.68\*\*\* |
|  |  |  |  | (0.000) |  |  |  | (0.001) |
| Mahometism |  | 12.99\*\*\* | 8.42\*\* |  |  | 18.00\*\*\* | 14.79\*\*\* |  |
|  |  | (0.009) | (0.045) |  |  | (0.000) | (0.001) |  |
| Protestantism |  | 25.90\*\*\* | 21.78\*\*\* |  |  | 31.04\*\*\* | 27.70\*\*\* |  |
|  |  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Polygamy |  | 6.49 |  |  |  | 11.23\* | 7.75 |  |
|  |  | (0.149) |  |  |  | (0.073) | (0.202) |  |
| Blasphemy, propositions |  | 17.00\*\*\* | 12.68\*\*\* |  |  | 24.59\*\*\* | 21.05\*\*\* |  |
|  |  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| False priests |  | 10.06 |  |  |  | 21.76 |  |  |
|  |  | (0.479) |  |  |  | (0.233) |  |  |
| Solicitation and clergy crimes |  | 28.09\*\*\* | 24.38\*\*\* |  |  | 27.70\*\*\* | 25.54\*\*\* |  |
|  |  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Accomplice |  | 22.46\* | 18.60 |  |  | 23.89 |  |  |
|  |  | (0.060) | (0.127) |  |  | (0.343) |  |  |
| Miscellaneous |  | 12.98 |  |  |  | 31.32\*\*\* | 28.73\*\*\* |  |
|  |  | (0.221) |  |  |  | (0.000) | (0.000) |  |
| Against Holy Office |  | 26.92\*\*\* | 23.16\*\*\* |  |  | 33.22\*\*\* | 30.02\*\*\* |  |
|  |  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Sexual promiscuity |  | 18.66\*\*\* | 14.23\*\*\* |  |  | 15.19\*\*\* | 12.21\*\* |  |
|  |  | (0.001) | (0.006) |  |  | (0.007) | (0.027) |  |
| Witchcraft, superstition |  | 13.43\*\*\* | 9.30\*\* |  |  | 7.34 |  |  |
|  |  | (0.002) | (0.011) |  |  | (0.112) |  |  |
| Crime unknown |  | 16.88\* | 12.68 |  |  | 10.22\*\*\* | 7.55\*\* |  |
|  |  | (0.077) | (0.180) |  |  | (0.003) | (0.016) |  |
| Time FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Region FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 10,939 | 10,939 | 10,939 | 10,408 | 7,336 | 7,336 | 7,336 | 3,115 |
| P./Adj. R-sq | 0.0634 | 0.0634 | 0.0634 | 0.0634 | 0.0322 | 0.0322 | 0.0322 | 0.0322 |

Notes: The dependent variable is “not heaped age” (those more likely to be numerate). We controlled for time effects by including half centuries of birth and regional fixed effects as described in Table 5. Coefficients show the marginal fixed effects of logistic regressions, multiplied by 125 (see Appendix B). Robust p-Values in parentheses: \*\*\*p<0.01, \*\*p<0.05, \*p<0.10

Table A.3. Determinants of non-heaping (i.e. those more likely to be numerate) in Iberia, logit and linear probability regressions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Model | Logistic regressions | | | | Linear Probability Models | | | |
| Description | Total inqui-sition effect | All indiv. “crimes” | Indiv. crimes (selected) | Only inquis. cases | Total inqui-sition effect | All indiv. crimes | Indiv. crimes (selected) | Only inquis. cases |
| Female | -10.65\*\*\* | -10.48\*\*\* | -10.50\*\*\* | -17.94\*\*\* | -10.07\*\*\* | -10.01\*\*\* | -10.03\*\*\* | -16.95\*\*\* |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Age 23-32 | 12.61\*\*\* | 12.08\*\*\* | 12.11\*\*\* | 14.61\*\*\* | 11.62\*\*\* | 11.58\*\*\* | 11.61\*\*\* | 13.86\*\*\* |
| (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Inquisition source | 19.24\*\*\* |  |  |  | 15.64\*\*\* |  |  |  |
| (0.000) |  |  |  | (0.000) |  |  |  |
| Judaism-accused |  | 22.59\*\*\* | 22.38\*\*\* | 7.98\*\*\* |  | 21.96\*\*\* | 21.75\*\*\* | 7.40\*\*\* |
|  | (0.000) | (0.000) | (0.000) |  | (0.000) | (0.000) | (0.000) |
| Elite crimes |  |  |  | 13.93\*\*\* |  |  |  | 13.14\*\*\* |
|  |  |  | (0.000) |  |  |  | (0.000) |
| Mahometism |  | 15.49\*\*\* | 15.29\*\*\* |  |  | 15.25\*\*\* | 15.05\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Protestantism |  | 26.01\*\*\* | 25.82\*\*\* |  |  | 26.13\*\*\* | 25.92\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Polygamy |  | 7.36\*\* | 7.16\*\* |  |  | 7.11\*\* | 6.92\*\* |  |
|  | (0.016) | (0.018) |  |  | (0.015) | (0.017) |  |
| Blasphemy, propositions |  | 19.32\*\*\* | 19.26\*\*\* |  |  | 19.15\*\*\* | 18.94\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| False priests |  | 13.09 |  |  |  | 12.43 |  |  |
|  |  | (0.249) |  |  |  | (0.262) |  |  |
| priesitation and clergy crimes |  | 27.36\*\*\* | 27.30\*\*\* |  |  | 28.06\*\*\* | 28.01\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Accomplice |  | 21.30\*\* | 21.14\* |  |  | 21.51\* | 21.33\* |  |
|  | (0.037) | (0.077) |  |  | (0.056) | (0.058) |  |
| Miscellaneous |  | 25.26\*\*\* | 24.03\*\*\* |  |  | 24.18\*\*\* | 24.00\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Against Holy Office |  | 28.39\*\*\* | 28.22\*\*\* |  |  | 29.32\*\*\* | 29.11\*\*\* |  |
|  | (0.000) | (0.000) |  |  | (0.000) | (0.000) |  |
| Sexual promiscuity |  | 16.10\*\*\* | 15.90\*\*\* |  |  | 15.75\*\*\* | 15.54\*\*\* |  |
|  | (0.000) | (0.001) |  |  | (0.000) | (0.000) |  |
| Witchcraft, superstition |  | 9.51\*\*\* | 9.32\*\* |  |  | 9.15\*\*\* | 8.97\*\*\* |  |
|  | (0.001) | (0.015) |  |  | (0.001) | (0.001) |  |
| Crime unknown |  | 5.86\*\* | 5.70\*\* |  |  | 5.35\*\* | 5.21\*\* |  |
|  | (0.023) | (0.027) |  |  | (0.029) | (0.033) |  |
| Constant |  |  |  |  | 23.20\*\*\* | 21.98\*\*\* | 27.09\*\*\* | 76.48\*\*\* |
|  |  |  |  |  | (0.000) | (0.000) | (0.000) | (0.000) |
| Time FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Region FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 30,366 | 30,366 | 30,366 | 13,523 | 30,366 | 30,366 | 30,366 | 13,523 |
| P./Adj. R-sq | 0.0538 | 0.0538 | 0.0538 | 0.0538 | 0.05 | 0.05 | 0.05 | 0.07 |

Notes: The dependent variable is “not heaped age” (more likely to be numerate). The reference category is male individuals, aged 33 to 72, born between 1600 and 1649 in the region of Central Castile (all specifications); drawn from a census source (models 1-2 and 5-6); from a census source *or* accused of selected crimes at the Inquisition (models 3 and 7); drawn from the Inquisition-database and not accused of Judaism or an elite crime (models 4 and 8). We controlled for regional fixed effects by including regional dummies and for time effects including half centuries of birth; we also controlled for the source being a death register where appropriate (omitted from this Table). We multiplied the coefficient of the regressions by 125 as to report percentages and to adjust them for the 20% of ages that were truly multiples of five, given a normal age distribution. Robust p-Values are given in parentheses: \*\*\*p<0.01, \*\*p<0.05, \*p<0.10

Table A.4: Comparing only JA in Southern and Central Spain with the control group

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| Occ. Groups: | All excl. profess | Also less semi-prof. | Only industr. |
| Judaism-accused | 29.52\*\*\* | 21.02\* | 27.68\*\* |
|  | (0.004) | (0.095) | (0.049) |
| Gender | Yes | Yes | Yes |
| Age FE | Yes | Yes | Yes |
| Occup. FE | Yes | Yes | Yes |
| Time FE | Yes | Yes | Yes |
| Region FE | Yes | Yes | Yes |
| N | 6,536 | 5,874 | 2,072 |

Notes: The number of inquisition defendants (JA) is for Column 1, 2, and 3, respectively: 41,29, 24; the number of cases of the normal population (control) group is for Column 1, 2, and 3 respectively: 6,495, 5,845, 2,048. The “Yes” statements indicate that these variables are included, but the main coefficients of interest here are those of the JA.

Table A.5: Numeracy of male Inquisition defendants (Portugal and Spain) by occupation group in the 16th and 17th century

|  |  |  |
| --- | --- | --- |
| Occupation group | Obs. No | ABCC Index |
| Clergy | 401 | 82 |
| Professionals | 386 | 79 |
| Military | 235 | 78 |
| Sales workers, merchants, shopkeepers | 1,034 | 75 |
| Administrative and managerial tasks | 143 | 68 |
| Agriculture, fishery | 530 | 67 |
| Traditional services (barber, brewer, miller, housekeeper) | 259 | 67 |
| Manufacture, craftsmen | 836 | 64 |
| No information | 5,100 | 62 |
| Rest category (no job, "worker", "assistant", “employed”) | 258 | 59 |

**Appendix B: Notes on the “likely-to-be-numerate” estimation**