**Statistical Appendix**

**GDP and wages**

*Nominal GDP at factor costs* for Spanish provinces (NUTS3). In order to express it in per capita terms, *total population by province* has been compiled from the respective Censuses of Population (1860, 1900, 1910, 1920 and 1930).

*Nominal unskilled wages* correspond to agricultural wages by province. By construction, the Williamson Index heavily relies on wages and thus we attempt to capture the unskilled provincial wages in each benchmark year by considering as much information as possible. For that reason we often compute averages of agricultural wages for different years when available. This way of proceeding allows correcting volatile values in some provinces in a particular year. Agricultural nominal wages are drawn from two sources. For 1860, data come from Sánchez-Alonso (1995, 302-303). Wages are referred to the years 1849-1856, and are collected from the information provided by Moral Ruiz (1979) and García Sanz (1980). For 1900-1930, the source used is Bringas (2000, 178-183) who offers data of average agrarian daily male wages (*Jornales medios diarios masculinos en pesetas*). These refer to cash wages paid to adult male labourers in the production of cereals between spring and fall (Bringas 2000, 91). For 1900, we take the simple average of the three closest years with information available (1890, 1897 and 1910). The lacking data in 1890 is filled using the wages of the neighbouring provinces (Vizcaya); for the Canary Islands we take the wages of 1897. For 1910, we consider the wages available for that year. The closest information to that year is that of 1914 being the wages virtually the same. For 1920 and 1930, we use the simple average of the years 1919-1921 and 1929-1931, respectively. The missing values for wages in some provinces are obtained computing them as the simple average of the neighbouring provinces. Given that there were no barriers to prevent agricultural labourers to shift to other occupations within the same province (Silvestre 2005; 2007; Beltrán Tapia and Miguel Salanova 2017), unskilled wages in different sectors tended to converge.

*Nominal skilled wages* refer to manufacturing wages. We are interested in obtaining a wage which represents the average manufacturing wage. Thus we average the wages earned by skilled and unskilled manufacturing workers. Manufacturing wages for 1860 are given by Madrazo (1984, 208). Figures for ten professional categories involved in the building of roads are offered[[1]](#footnote-1). The average manufacturing wage for 1860 comes from a simple average of two categories established according to level of skill and provincial coverage[[2]](#footnote-2): skilled workers (bricklayers or *albañiles*) and unskilled workers (*peón mayor*). Indeed, the geographical coverage of bricklayers is high but we do not have information for their wages in six provinces. In order to fill this gap, we use data for the most similar professional category for which the source offers information, that is, masons. The wages of bricklayers in these six provinces are calculated from the wages of masons, and their deviation from the average wages for masons in Spain, weighted by the industrial population of each province according to the Population Census of 1860. In addition, given that no wages are provided for Navarre, they must be estimated. It would be reasonable to think that there might be a wage gradient depending on geographical proximity. Indeed, for the rest of the years available, it is confirmed that the manufacturing wage in Navarre is close to the average wage of the neighbouring provinces. Therefore, the manufacturing wage in Navarre in 1860 is calculated as being the average wage in the neighbouring provinces[[3]](#footnote-3). Manufacturing wages in 1900 come from Sánchez-Alonso (1995). Regarding these data, which originally come from IGE (1903), Simpson (1995b, 190, 199) defines them as semi-skilled workers and he points out two provinces with excessively high wages: Pontevedra and Toledo. The values have therefore been corrected by re-calculating in both cases their wages as the average of the industrial wage in the neighbouring provinces. Finally, manufacturing wages in 1914, 1920 and 1930 come from Ministerio de Trabajo (1927, 1931) (*Estadísticas de los Salarios y Jornadas de Trabajo*). These publications provide data for nominal wage per hour and the number of workers in each occupation according to different categories: we compute the provincial wages as the weighted average for skilled male workers and unskilled labourers. For 1930, the number of workers is assumed to be the same as in 1925. Finally, manufacturing wages for the Canary Islands are not available and have thus to be estimated. For 1914, it is assumed that the manufacturing wage in the Canary Islands was similar to that of the lowest one among the Spanish provinces (0.28 ptas per hour). For the next years, the increase in the manufacturing wage is assumed to be similar to that of the Spanish economy as a whole. While this decision may lead to an overestimation of the manufacturing wages in the Canary Islands in 1920 and 1930, its effect on the final average wage is actually small. If we assume an evolution in the manufacturing wages of the Canary Islands similar to that of the less dynamic province, results are virtually the same.

**Employment and hours worked**

*Total male active population by province* has been compiled from the respective Censuses of Population (1860, 1900, 1910, 1920 and 1930). Due to the lack of consistency regarding the registration of female agrarian population in the period analysed (Erdozáin and Mikelarena, 1999; Nicolau, 2005), we have only considered the male agrarian population in the calculation of the total active population, a usual procedure both in the Spanish as well as the international historical literature (Van Zanden 1991; O’Brien and Prados de la Escosura 1992; Prados de la Escosura 2008). However, the first Census of Population in this study does not disaggregate agrarian population between male and female actives. The male agrarian workers in 1860 are thus obtained by applying the percentage of the total male agrarian population over total active male population in each province in the closest Census, that of 1877, offered by Erdozáin and Mikelarena (1999). As a robustness test four our results, we have also computed total agrarian population including both males and females, and, considering only agrarian males, adding a fixed proportion of one third for female agrarian workforce (Prados de la Escosura 2008, 322; Prados de la Escosura and Rosés 2009, 1074)[[4]](#footnote-4).

For the *number of days* worked throughout the year, we consider, following Prados de la Escosura (2008, 322), that each full-time worker was employed 270 days per annum. To obtain the daily *hours worked*, we take a value of ten hours per day for the manufacturing sector. In the case of the agrarian sector, the same amount of hours is considered. As Prados de la Escosura (2008, 322) states, “[f]or mid-nineteenth-century agriculture, Caballero (1864) pointed to 10 hours per day while a similar average figure, 9.7 hours, was found in the mid-1950s”.

**Regression variables**

*Real GDP* has been obtained from the five-sector disaggregation of provincial GDP and the deflators at the national level for those sectors provided in Prados de la Escosura (2003). Urbanisation rates (*urbanisation*), measured as the percentage of population living in municipalities bigger than 5.000 inhabitants, are taken from Reher (1994) and Tafunell (2005). The variable *industrialisation* is computed as the ratio between the industry GVA and the nominal GDP. In addition, the underlying geographical data for the calculation of the *population density* (population by square km) in each province are compiled from the Censuses of Population and INE. *Fertility rates* come from Livi-Bacci (1988). Given the lack of data for 1860, the figures of 1887 are considered instead, thus assuming that fertility rates hardly changed between these two years. The information about *literacy*, calculated as the percentage of the total population over 10 years who was able to read and write, is offered by Núñez (1992). Lastly, the stock of common lands is measured as a fraction over the total provincial area using data from GEHR (1994), Artiaga and Balboa (1992) and Gallego (2007). Unfortunately, there is no information for the three provinces in the Basque Country. Given that no data exist for 1910 and 1920, linear interpolation has been employed instead.

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| TABLE A1. Williamson Index (y/w) by province, 1860-1930 | | | |  |  |
|  | **1860** | **1900** | **1910** | **1920** | **1930** |
| Álava | 2,64 | 3,64 | 2,19 | 2,52 | 2,73 |
| Albacete | 3,19 | 3,32 | 2,75 | 3,48 | 3,17 |
| Alicante | 2,57 | 2,91 | 2,89 | 2,93 | 3,10 |
| Almería | 3,10 | 2,81 | 2,49 | 2,46 | 2,19 |
| Ávila | 2,52 | 2,60 | 2,56 | 4,85 | 2,95 |
| Badajoz | 2,25 | 1,85 | 2,19 | 2,02 | 3,09 |
| Baleares | 3,49 | 2,82 | 2,56 | 2,77 | 3,27 |
| Barcelona | 2,77 | 4,85 | 4,25 | 3,78 | 2,82 |
| Burgos | 2,57 | 2,59 | 2,09 | 4,23 | 2,27 |
| Cáceres | 2,72 | 2,40 | 2,43 | 1,49 | 2,17 |
| Cádiz | 4,24 | 3,92 | 4,10 | 2,41 | 2,65 |
| Canarias | 2,44 | 2,61 | 2,54 | 3,80 | 2,51 |
| Castellón | 3,42 | 3,44 | 3,01 | 1,86 | 1,71 |
| Ciudad Real | 4,43 | 2,62 | 2,80 | 4,25 | 1,77 |
| Córdoba | 2,90 | 2,67 | 2,36 | 1,91 | 2,06 |
| Coruña | 2,40 | 2,17 | 2,57 | 2,54 | 2,10 |
| Cuenca | 2,17 | 2,15 | 1,79 | 2,05 | 1,80 |
| Gerona | 2,52 | 2,39 | 2,82 | 2,29 | 1,57 |
| Granada | 5,41 | 2,65 | 4,10 | 2,62 | 2,53 |
| Guadalajara | 2,47 | 2,48 | 2,31 | 2,29 | 2,17 |
| Guipúzcoa | 2,47 | 5,05 | 3,59 | 3,45 | 4,09 |
| Huelva | 2,39 | 2,10 | 2,49 | 1,47 | 2,43 |
| Huesca | 2,37 | 2,15 | 1,92 | 2,53 | 2,18 |
| Jaén | 2,69 | 2,48 | 2,13 | 1,49 | 1,47 |
| León | 2,26 | 1,96 | 1,94 | 2,54 | 2,44 |
| Lérida | 2,09 | 2,05 | 2,12 | 1,73 | 1,10 |
| Logroño | 3,19 | 2,77 | 2,65 | 1,54 | 2,28 |
| Lugo | 0,91 | 1,49 | 1,52 | 1,94 | 2,13 |
| Madrid | 3,77 | 4,75 | 3,82 | 4,28 | 6,16 |
| Málaga | 4,00 | 2,61 | 3,64 | 1,65 | 2,79 |
| Murcia | 3,48 | 2,42 | 2,26 | 2,61 | 3,03 |
| Navarra | 2,22 | 2,10 | 2,03 | 2,19 | 1,89 |
| Orense | 1,69 | 1,28 | 1,78 | 1,72 | 1,67 |
| Oviedo | 1,61 | 3,06 | 1,84 | 2,99 | 2,31 |
| Palencia | 3,47 | 3,32 | 2,93 | 2,79 | 2,53 |
| Pontevedra | 1,41 | 2,28 | 2,20 | 1,79 | 2,59 |
| Salamanca | 2,72 | 4,22 | 3,17 | 5,39 | 4,89 |
| Santander | 2,36 | 3,13 | 2,66 | 2,97 | 3,46 |
| Segovia | 2,49 | 2,57 | 2,45 | 2,69 | 3,10 |
| Sevilla | 3,45 | 3,22 | 3,07 | 2,38 | 1,96 |
| Soria | 2,78 | 2,32 | 3,10 | 3,01 | 2,02 |
| Tarragona | 2,85 | 3,25 | 2,76 | 2,57 | 2,20 |
| Teruel | 2,78 | 2,26 | 2,50 | 2,33 | 1,65 |
| Toledo | 2,76 | 2,80 | 2,75 | 3,12 | 2,29 |
| Valencia | 3,56 | 3,47 | 4,86 | 4,31 | 3,81 |
| Valladolid | 3,83 | 2,88 | 3,25 | 3,30 | 3,19 |
| Vizcaya | 2,41 | 4,44 | 3,31 | 5,95 | 4,45 |
| Zamora | 3,71 | 2,35 | 2,39 | 3,51 | 3,45 |
| Zaragoza | 2,72 | 2,68 | 2,87 | 1,70 | 2,28 |

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| TABLE A2. Determinants of inequality (average wage) | | | | | | | | | |
|  | Dependent variable: Williamson Index (average wage) | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| GDPpc | 2.64\*\*\* | 3.53\*\*\* | 3.59\*\*\* |  | 4.15\*\*\* |  | 2.23\*\*\* | 4.40\*\*\* | 4.54\*\*\* |
| (0.41) | (0.39) | (0.31) |  | (0.44) |  | (0.82) | (1.10) | (0.78) |
| GDPpc squared | -0.63\*\* | -0.87\*\*\* | -0.98\*\*\* |  | -1.44\*\*\* |  | -0.61 | -1.36\*\*\* | -1.42\*\*\* |
| (0.31) | (0.25) | (0.20) |  | (0.28) |  | (0.52) | (0.45) | (0.29) |
| Urbanisation |  | -0.22\* | 0.00 |  | 0.52 |  |  | -0.39\*\* | -0.10 |
|  | (0.11) | (0.09) |  | (0.54) |  |  | (0.16) | (0.13) |
| Industrialisation |  | -0.98\*\*\* | -1.50\*\*\* |  | -1.10\*\*\* |  |  | -1.21 | -2.38\*\*\* |
|  | (0.32) | (0.29) |  | (0.34) |  |  | (1.06) | (0.81) |
| Population density (ln) |  | 0.14\*\*\* | 0.14\*\*\* |  | 0.41 |  |  | 0.22\*\*\* | 0.25\*\*\* |
|  | (0.05) | (0.04) |  | (0.27) |  |  | (0.07) | (0.06) |
| Fertility |  | 1.66\*\*\* | 0.98\*\*\* |  | 0.75 |  |  | 1.99\*\*\* | 1.43\*\*\* |
|  | (0.33) | (0.31) |  | (0.55) |  |  | (0.55) | (0.43) |
| Literacy |  | -0.50\*\*\* | 0.20 |  | 0.12 |  |  | -0.67\*\* | 0.22 |
|  | (0.13) | (0.16) |  | (0.37) |  |  | (0.30) | (0.23) |
| Commons |  | -0.71\*\*\* | -0.61\*\*\* |  | -0.15 |  |  | -0.78\*\*\* | -0.80\*\*\* |
|  | (0.16) | (0.13) |  | (0.62) |  |  | (0.23) | (0.19) |
| d\_1900 |  |  | 0.04 |  | -0.01 |  |  |  |  |
|  |  | (0.05) |  | (0.10) |  |  |  |  |
| d\_1910 |  |  | -0.30\*\*\* |  | -0.39\*\*\* |  |  |  | -0.34\*\*\* |
|  |  | (0.05) |  | (0.12) |  |  |  | (0.05) |
| d\_1920 |  |  | -0.17\*\* |  | -0.28\* |  |  |  | -0.25\*\*\* |
|  |  | (0.07) |  | (0.15) |  |  |  | (0.08) |
| d\_1930 |  |  | -0.58\*\*\* |  | -0.71\*\*\* |  |  |  | -0.67\*\*\* |
|  |  | (0.08) |  | (0.20) |  |  |  | (0.09) |
| Observations | 245 | 234 | 234 |  | 234 |  | 196 | 186 | 186 |
| R-squared | 0.569 | 0.652 | 0.771 |  | 0.845 |  | 0.504 | 0.627 | 0.754 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

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| TABLE A3. Determinants of inequality (urbanisation) | | | | | | | | | |
|  | Dependent variable: Williamson Index | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| Urbanisation | 2.46\*\*\* | 1.13 | 2.36\*\*\* |  | 2.68 |  | 2.24\*\* | 0.78 | 2.15\*\* |
| (0.80) | (0.87) | (0.80) |  | (2.18) |  | (0.93) | (0.92) | (0.95) |
| Urbanisation squared | -1.63 | -0.93 | -1.71\* |  | -3.67\* |  | -1.55 | -0.84 | -1.75\* |
| (1.02) | (1.01) | (0.89) |  | (2.21) |  | (1.14) | (1.04) | (1.02) |
| Industrialisation |  | -0.72 | -2.16\*\*\* |  | -1.14 |  |  | -0.37 | -2.80\*\* |
|  | (0.87) | (0.82) |  | (0.97) |  |  | (1.22) | (1.32) |
| Population density |  | 0.40\*\*\* | 0.43\*\*\* |  | 1.25\* |  |  | 0.56\*\*\* | 0.62\*\*\* |
|  | (0.13) | (0.11) |  | (0.75) |  |  | (0.14) | (0.14) |
| Fertility |  | 1.52\*\* | 0.33 |  | 0.34 |  |  | 1.46\* | 0.13 |
|  | (0.59) | (0.60) |  | (1.16) |  |  | (0.77) | (0.83) |
| Literacy |  | 0.38 | 2.35\*\*\* |  | 1.90 |  |  | 1.06\*\*\* | 2.72\*\*\* |
|  | (0.26) | (0.37) |  | (1.19) |  |  | (0.35) | (0.51) |
| Commons |  | -1.83\*\*\* | -1.79\*\*\* |  | 0.76 |  |  | -2.17\*\*\* | -2.04\*\*\* |
|  | (0.41) | (0.38) |  | (1.61) |  |  | (0.46) | (0.47) |
| d\_1900 |  |  | -0.71\*\*\* |  | -0.53\* |  |  |  |  |
|  |  | (0.13) |  | (0.32) |  |  |  |  |
| d\_1910 |  |  | -0.97\*\*\* |  | -0.77\* |  |  |  | -0.28\*\* |
|  |  | (0.17) |  | (0.41) |  |  |  | (0.12) |
| d\_1920 |  |  | -1.17\*\*\* |  | -0.93\* |  |  |  | -0.56\*\*\* |
|  |  | (0.21) |  | (0.52) |  |  |  | (0.19) |
| d\_1930 |  |  | -1.65\*\*\* |  | -1.39\*\* |  |  |  | -1.08\*\*\* |
|  |  | (0.20) |  | (0.65) |  |  |  | (0.20) |
| Observations | 245 | 234 | 234 |  | 234 |  | 196 | 186 | 186 |
| R-squared | 0.123 | 0.211 | 0.363 |  | 0.614 |  | 0.096 | 0.293 | 0.350 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

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| TABLE A4. Determinants of inequality (globalisation) | | | | | | | | | |
|  | Dependent variable: Williamson Index | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| GDPpc | 5.10\*\*\* | 6.41\*\*\* | 6.28\*\*\* |  | 6.63\*\*\* |  | 6.75\*\*\* | 6.95\*\*\* | 7.13\*\*\* |
| (0.91) | (0.92) | (0.86) |  | (1.01) |  | (1.40) | (1.80) | (1.73) |
| GDPpc squared | -1.64\*\*\* | -1.95\*\*\* | -1.94\*\*\* |  | -2.02\*\*\* |  | -2.78\*\*\* | -2.89\*\*\* | -2.61\*\*\* |
| (0.62) | (0.53) | (0.50) |  | (0.64) |  | (0.82) | (0.70) | (0.64) |
| Urbanisation |  | -0.22 | 0.04 |  | -1.11 |  |  | -0.28 | -0.02 |
|  | (0.26) | (0.22) |  | (1.20) |  |  | (0.27) | (0.26) |
| Industrialisation |  | -2.67\*\*\* | -3.28\*\*\* |  | -1.20 |  |  | -2.64 | -4.83\*\* |
|  | (0.80) | (0.80) |  | (0.85) |  |  | (1.87) | (1.91) |
| Population  density (ln) |  | 0.48\*\*\* | 0.43\*\*\* |  | 0.82 |  |  | 0.72\*\*\* | 0.67\*\*\* |
|  | (0.13) | (0.12) |  | (0.73) |  |  | (0.14) | (0.14) |
| Fertility |  | 4.25\*\*\* | 3.09\*\*\* |  | 2.07\*\* |  |  | 2.95\*\*\* | 2.30\*\* |
|  | (0.60) | (0.63) |  | (1.01) |  |  | (0.95) | (0.92) |
| Literacy |  | -1.12\*\*\* | 0.09 |  | 0.43 |  |  | 0.08 | 0.90\* |
|  | (0.32) | (0.35) |  | (0.95) |  |  | (0.44) | (0.46) |
| Commons |  | -1.24\*\*\* | -1.29\*\*\* |  | -0.67 |  |  | -1.75\*\*\* | -1.61\*\*\* |
|  | (0.39) | (0.35) |  | (1.46) |  |  | (0.42) | (0.42) |
| d\_1900 |  |  | -0.68\*\*\* |  | -0.84\*\*\* |  |  |  |  |
|  |  | (0.15) |  | (0.27) |  |  |  |  |
| d\_1910 |  |  | -0.83\*\*\* |  | -1.04\*\*\* |  |  |  | -0.23\* |
|  |  | (0.17) |  | (0.32) |  |  |  | (0.13) |
| d\_1920 |  |  | -1.04\*\*\* |  | -1.26\*\*\* |  |  |  | -0.53\*\* |
|  |  | (0.27) |  | (0.41) |  |  |  | (0.21) |
| d\_1930 |  |  | -1.25\*\*\* |  | -1.59\*\*\* |  |  |  | -0.83\*\*\* |
|  |  | (0.22) |  | (0.50) |  |  |  | (0.17) |
| Dist. to Mad/Bcn | 0.00 | -0.00 | -0.00 |  |  |  | 0.00\*\* | -0.00 | -0.00 |
| (0.00) | (0.00) | (0.00) |  |  |  | (0.00) | (0.00) | (0.00) |
| \* d\_1900 | -0.00 | -0.00\* | -0.00 |  | 0.00 |  |  |  |  |
| (0.00) | (0.00) | (0.00) |  | (0.00) |  |  |  |  |
| \* d\_1910 | -0.00 | -0.00 | -0.00 |  | 0.00 |  | -0.00 | -0.00 | 0.00 |
| (0.00) | (0.00) | (0.00) |  | (0.00) |  | (0.00) | (0.00) | (0.00) |
| \* d\_1920 | -0.00 | -0.00 | 0.00 |  | 0.00\* |  | -0.00 | 0.00 | 0.00\* |
| (0.00) | (0.00) | (0.00) |  | (0.00) |  | (0.00) | (0.00) | (0.00) |
| \* d\_1930 | -0.00\* | -0.00 | 0.00 |  | 0.00 |  | -0.00\* | -0.00 | 0.00 |
| (0.00) | (0.00) | (0.00) |  | (0.00) |  | (0.00) | (0.00) | (0.00) |
| Coast | 0.25 | -0.04 | -0.16 |  |  |  | 0.32\*\*\* | 0.15 | 0.24 |
| (0.21) | (0.20) | (0.17) |  |  |  | (0.12) | (0.18) | (0.18) |
| \* d\_1900 | 0.00 | 0.20 | 0.42\*\* |  | 0.27 |  |  |  |  |
| (0.23) | (0.21) | (0.19) |  | (0.21) |  |  |  |  |
| \* d\_1910 | -0.06 | 0.24 | 0.41\* |  | 0.27 |  | -0.08 | 0.05 | 0.07 |
| (0.27) | (0.25) | (0.24) |  | (0.22) |  | (0.18) | (0.20) | (0.20) |
| \* d\_1920 | -0.49 | -0.14 | 0.06 |  | -0.12 |  | -0.43\* | -0.42\* | -0.37 |
| (0.31) | (0.29) | (0.27) |  | (0.24) |  | (0.24) | (0.23) | (0.24) |
| \* d\_1930 | -0.77\*\* | -0.41 | -0.27 |  | -0.41\* |  | -0.73\*\*\* | -0.74\*\* | -0.82\*\*\* |
| (0.34) | (0.27) | (0.25) |  | (0.23) |  | (0.26) | (0.30) | (0.30) |
| Observations | 245 | 234 | 234 |  | 234 |  | 196 | 186 | 186 |
| R-squared | 0.411 | 0.546 | 0.598 |  | 0.744 |  | 0.433 | 0.568 | 0.579 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

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| TABLE A5. Determinants of inequality (migration) | | | | | | | | | |
|  | Dependent variable: Williamson Index | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| GDPpc | 3.70\*\*\* | 6.11\*\*\* | 6.13\*\*\* |  | 6.69\*\*\* |  | 5.30\*\*\* | 8.07\*\*\* | 7.93\*\*\* |
| (0.87) | (0.97) | (0.85) |  | (0.99) |  | (1.63) | (2.32) | (2.11) |
| GDPpc squared | -1.24\* | -1.80\*\*\* | -1.90\*\*\* |  | -2.14\*\*\* |  | -2.41\*\* | -3.23\*\*\* | -2.86\*\*\* |
| (0.67) | (0.61) | (0.53) |  | (0.63) |  | (1.10) | (0.91) | (0.71) |
| Urbanisation |  | -0.49\* | 0.14 |  | -0.08 |  |  | -0.69\*\* | -0.03 |
|  | (0.25) | (0.21) |  | (1.04) |  |  | (0.34) | (0.29) |
| Industrialisation |  | -1.86\*\* | -2.70\*\*\* |  | -0.37 |  |  | -1.80 | -5.24\*\* |
|  | (0.82) | (0.80) |  | (0.72) |  |  | (2.02) | (2.25) |
| Population  density (ln) |  | 0.31\*\*\* | 0.35\*\*\* |  | 1.02 |  |  | 0.58\*\*\* | 0.65\*\*\* |
|  | (0.11) | (0.10) |  | (0.62) |  |  | (0.14) | (0.14) |
| Fertility |  | 3.64\*\*\* | 2.55\*\*\* |  | 2.72\*\* |  |  | 4.04\*\*\* | 2.57\*\*\* |
|  | (0.61) | (0.56) |  | (1.07) |  |  | (1.10) | (0.86) |
| Literacy |  | -1.35\*\*\* | 0.31 |  | -0.24 |  |  | -0.72 | 0.84 |
|  | (0.32) | (0.37) |  | (0.87) |  |  | (0.65) | (0.52) |
| Commons |  | -1.31\*\*\* | -1.30\*\*\* |  | 0.15 |  |  | -1.91\*\*\* | -1.66\*\*\* |
|  | (0.38) | (0.34) |  | (1.41) |  |  | (0.45) | (0.43) |
| d\_1900 |  |  | -0.65\*\*\* |  | -0.70\*\*\* |  |  |  |  |
|  |  | (0.10) |  | (0.24) |  |  |  |  |
| d\_1910 |  |  | -0.79\*\*\* |  | -0.86\*\*\* |  |  |  | -0.17 |
|  |  | (0.13) |  | (0.32) |  |  |  | (0.11) |
| d\_1920 |  |  | -0.98\*\*\* |  | -0.98\*\* |  |  |  | -0.54\*\*\* |
|  |  | (0.17) |  | (0.39) |  |  |  | (0.16) |
| d\_1930 |  |  | -1.49\*\*\* |  | -1.56\*\*\* |  |  |  | -1.14\*\*\* |
|  |  | (0.17) |  | (0.51) |  |  |  | (0.20) |
| Migration | 0.02\*\* | 0.01 | -0.01 |  | -0.03\*\* |  | 0.02\* | -0.00 | -0.01 |
| (0.01) | (0.01) | (0.01) |  | (0.01) |  | (0.01) | (0.02) | (0.01) |
| Observations | 245 | 234 | 234 |  | 234 |  | 196 | 186 | 186 |
| R-squared | 0.312 | 0.455 | 0.569 |  | 0.733 |  | 0.328 | 0.476 | 0.524 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

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| TABLE A6. Determinants of inequality (wheat prices) | | | | | | | | | |
|  | Dependent variable: Williamson Index | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| GDPpc | 4.84\*\*\* | 6.07\*\*\* | 6.16\*\*\* |  | 6.46\*\*\* |  | 6.45\*\*\* | 9.39\*\*\* | 8.30\*\*\* |
| (0.84) | (0.94) | (0.92) |  | (1.05) |  | (1.50) | (2.43) | (2.46) |
| GDPpc squared | -1.56\*\* | -1.69\*\*\* | -1.95\*\*\* |  | -2.14\*\*\* |  | -2.71\*\*\* | -3.56\*\*\* | -3.00\*\*\* |
| (0.61) | (0.58) | (0.56) |  | (0.66) |  | (0.90) | (0.90) | (0.84) |
| Urbanisation |  | -0.31 | 0.01 |  | 0.05 |  |  | -0.77\*\* | -0.19 |
|  | (0.27) | (0.22) |  | (1.10) |  |  | (0.36) | (0.33) |
| Industry |  | -2.44\*\*\* | -2.81\*\*\* |  | -0.52 |  |  | -3.44 | -5.54\*\* |
|  | (0.80) | (0.77) |  | (0.73) |  |  | (2.15) | (2.28) |
| Population  density (ln) |  | 0.40\*\*\* | 0.36\*\*\* |  | 0.61 |  |  | 0.72\*\*\* | 0.68\*\*\* |
|  | (0.11) | (0.10) |  | (0.68) |  |  | (0.16) | (0.15) |
| Fertility |  | 3.91\*\*\* | 3.02\*\*\* |  | 2.89\*\*\* |  |  | 4.92\*\*\* | 3.06\*\*\* |
|  | (0.67) | (0.61) |  | (1.03) |  |  | (1.14) | (1.04) |
| Literacy |  | -1.03\*\*\* | 0.22 |  | -0.35 |  |  | -0.76 | 0.67 |
|  | (0.35) | (0.39) |  | (0.89) |  |  | (0.56) | (0.62) |
| Commons |  | -1.46\*\*\* | -1.43\*\*\* |  | -0.01 |  |  | -2.11\*\*\* | -1.80\*\*\* |
|  | (0.37) | (0.34) |  | (1.40) |  |  | (0.44) | (0.44) |
| d\_1900 |  |  | -0.62\*\*\* |  | -0.60\*\* |  |  |  |  |
|  |  | (0.10) |  | (0.24) |  |  |  |  |
| d\_1910 |  |  | -0.84\*\*\* |  | -1.09\*\*\* |  |  |  | -0.17 |
|  |  | (0.25) |  | (0.36) |  |  |  | (0.31) |
| d\_1920 |  |  | -1.14\*\* |  | -1.63\*\*\* |  |  |  | -0.60 |
|  |  | (0.45) |  | (0.57) |  |  |  | (0.54) |
| d\_1930 |  |  | -1.55\*\*\* |  | -1.90\*\*\* |  |  |  | -1.15\*\*\* |
|  |  | (0.37) |  | (0.58) |  |  |  | (0.42) |
| Wheat prices | -0.02\*\*\* | -0.01\*\* | 0.01 |  | 0.02\* |  | -0.01\*\*\* | -0.01\*\* | 0.00 |
| (0.00) | (0.00) | (0.01) |  | (0.01) |  | (0.00) | (0.01) | (0.02) |
| Observations | 242 | 231 | 231 |  | 231 |  | 194 | 184 | 184 |
| R-squared | 0.370 | 0.496 | 0.577 |  | 0.733 |  | 0.360 | 0.468 | 0.518 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

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| TABLE A7. Determinants of inequality (South) | | | | | | | | | |
|  | Dependent variable: Williamson Index | | | | | | | | |
|  | OLS | | |  | FE |  | IV | | |
|  | (1) | (2) | (3) |  | (4) |  | (5) | (6) | (7) |
| GDPpc | 3.95\*\*\* | 5.51\*\*\* | 6.23\*\*\* |  | 6.79\*\*\* |  | 5.34\*\*\* | 7.37\*\*\* | 7.81\*\*\* |
| (0.88) | (0.97) | (0.88) |  | (1.04) |  | (1.52) | (2.20) | (2.01) |
| GDPpc squared | -1.09 | -1.59\*\* | -2.08\*\*\* |  | -2.49\*\*\* |  | -2.10\*\* | -3.03\*\*\* | -2.94\*\*\* |
| (0.67) | (0.64) | (0.55) |  | (0.64) |  | (0.96) | (0.89) | (0.72) |
| Urbanisation |  | -0.15 | -0.15 |  | -0.27 |  |  | -0.48 | -0.31 |
|  | (0.26) | (0.24) |  | (1.09) |  |  | (0.31) | (0.30) |
| Industry |  | -2.44\*\*\* | -2.67\*\*\* |  | -0.65 |  |  | -2.43 | -4.84\*\* |
|  | (0.78) | (0.75) |  | (0.80) |  |  | (2.06) | (2.08) |
| Population  density (ln) |  | 0.37\*\*\* | 0.39\*\*\* |  | 1.12 |  |  | 0.64\*\*\* | 0.68\*\*\* |
|  | (0.11) | (0.11) |  | (0.69) |  |  | (0.14) | (0.14) |
| Fertility |  | 3.21\*\*\* | 2.31\*\*\* |  | 1.98\* |  |  | 3.23\*\*\* | 2.39\*\*\* |
|  | (0.62) | (0.60) |  | (1.12) |  |  | (1.03) | (0.86) |
| Literacy |  | -0.84\*\*\* | 0.54 |  | -1.16 |  |  | -0.17 | 0.99\* |
|  | (0.32) | (0.40) |  | (0.98) |  |  | (0.58) | (0.56) |
| Commons |  | -1.57\*\*\* | -1.26\*\*\* |  | -0.14 |  |  | -1.98\*\*\* | -1.63\*\*\* |
|  | (0.38) | (0.37) |  | (1.52) |  |  | (0.46) | (0.45) |
| d\_1900 |  |  | -0.64\*\*\* |  | -0.39 |  |  |  |  |
|  |  | (0.13) |  | (0.25) |  |  |  |  |
| d\_1910 |  |  | -0.88\*\*\* |  | -0.48 |  |  |  | -0.24\* |
|  |  | (0.17) |  | (0.33) |  |  |  | (0.15) |
| d\_1920 |  |  | -0.89\*\*\* |  | -0.33 |  |  |  | -0.44\*\* |
|  |  | (0.24) |  | (0.42) |  |  |  | (0.21) |
| d\_1930 |  |  | -1.46\*\*\* |  | -0.87\* |  |  |  | -1.05\*\*\* |
|  |  | (0.25) |  | (0.52) |  |  |  | (0.24) |
| d\_South | 0.81\*\*\* | 0.43\*\*\* | 0.22 |  |  |  | 0.44\*\*\* | 0.25 | 0.23 |
| (0.14) | (0.16) | (0.16) |  |  |  | (0.11) | (0.17) | (0.16) |
| \* d\_1900 | -0.47\*\*\* | -0.50\*\*\* | -0.03 |  | -0.19 |  |  |  |  |
| (0.16) | (0.15) | (0.19) |  | (0.23) |  |  |  |  |
| \* d\_1910 | -0.49\*\*\* | -0.45\*\* | 0.18 |  | -0.13 |  | -0.03 | -0.00 | 0.16 |
| (0.18) | (0.19) | (0.22) |  | (0.27) |  | (0.14) | (0.15) | (0.19) |
| \* d\_1920 | -0.89\*\*\* | -0.76\*\*\* | -0.28 |  | -0.65\*\* |  | -0.44\*\* | -0.39\*\* | -0.23 |
| (0.20) | (0.21) | (0.26) |  | (0.30) |  | (0.18) | (0.19) | (0.23) |
| \* d\_1930 | -1.17\*\*\* | -0.98\*\*\* | -0.15 |  | -0.38 |  | -0.72\*\*\* | -0.71\*\*\* | -0.19 |
| (0.20) | (0.21) | (0.27) |  | (0.29) |  | (0.18) | (0.20) | (0.23) |
| Observations | 245 | 234 | 234 |  | 234 |  | 196 | 186 | 186 |
| R-squared | 0.397 | 0.507 | 0.578 |  | 0.736 |  | 0.395 | 0.517 | 0.542 |
| Robust standard errors between brackets; \*, \*\*, or \*\*\* denotes significance at 10, 5 or 1 per cent level. For simplicity, the intercept is not reported. | | | | | | | | | |

1. Here we use construction wages to proxy industrial wages. To check whether this is a reasonable assumption we take the data available in the closest years (1914-1925), offered by the Ministerio de Trabajo (1927, 1931). The data show that construction wages on those years were similar to the average industrial wage. [↑](#footnote-ref-1)
2. Here we aim to obtain the highest degree of homogeneity with the wages available for 1900 and 1910-30. Given that no data on active population in each occupation is available, the average cannot be weighted and a simple average is used. [↑](#footnote-ref-2)
3. As a test for this result, we use wages in 1897, the closest available date. In that year, the industrial wage in Navarre was 3% higher than the Spanish average weighted by the industrial population. If this percentage is applied to the Spanish value for 1860, the figure obtained almost coincides with the one previously calculated. [↑](#footnote-ref-3)
4. In this sense, “since female EAP figures for agriculture are inconsistent across censuses, women in agriculture were assumed to allocate their time in a way that made female labor a fixed fraction of male labor in the agricultural sector” (Prados de la Escosura and Rosés 2009, 1074). [↑](#footnote-ref-4)