Economics 303Y1

Economic History of Modern Europe to 1914

Topic No. 1 [7]

Population Growth and the Industrial Revolution (1750 - 1850): Was Demographic Growth a Cause or Consequence of British Industrialization?

Within each section, all publications are listed in the chronological order of original publication, when that can be ascertained.

A. Readings on the Population Debate: in the form of Monographs and Essays in Books, on Great Britain and Continental Europe


   (a) Chapter 4, ‘Births, Marriages, and Deaths,’ pp. 84-112.
   (b) Chapter 5, ‘Did the Peasants Really Starve? Famine and Pestilence in Pre-Industrial Society,’ pp. 113-34.


   **Part I: General**
   
   
   
   
   
   (e) J. Hajnal, ‘European Marriage Patterns in Perspective,’ pp. 101-43. [Original essay.]

   **Part II: Great Britain**
   
   
   (b) D.V. Glass, ‘Two Papers on Gregory King,’ pp. 159 - 220.
      
      


30. Charles Wilson and Geoffrey Parker, eds., Introduction to the Sources of European Economic History, 1500-1800 (London, 1977). See the population tables commencing each section, for Italy, Spain, Portugal, the Low Countries, British Isles, France, and Germany.


See also the review article on this book by Michael Flinn, in *The Economic History Review*, 2nd ser. 35 (1982), 443-57.


    See especially part III: ‘The Role of Demographic Factors in European Development,’ pp. 93-125.


* 43. R. I. Rotberg, T. K. Rabb, Roger Schofield, and E.A. Wrigley, eds., *Population and Economy: Population and History from the Traditional to the Modern World* (Cambridge, 1986). This is a reprint in book form of *Journal of Interdisciplinary History*, 15 (Spring 1985), in all which all of the following articles thus may also be found (with the pagination that of the journal):


    ** (c) Peter Lindert, ‘English Population, Wages, and Prices, 1541 - 1913,’ pp. 609 - 34.

    (d) Ronald Lee, ‘Population Homeostasis and English Demographic History,’ pp. 609 -
34.


(d) E.A. Wrigley, ‘Elegance and Experience: Malthus at the Bar of History,’ pp. 46-64.


(g) Philip Kreager, ‘Demographic Regimes as Cultural Systems,’ pp. 131 - 55.

(h) R. M. Smith, ‘Transfer Incomes, Risk and Security: The Roles of the Family and the Collectivity in Recent Theories of Fertility Changes,’ pp. 188 - 211.


(b) P.P. Viazzo, ‘Illegitimacy and the European Marriage Pattern: Comparative Evidence from the Alpine Area,’ pp. 100-21.

(c) Roger Schofield, ‘Did Mothers Really Die?’ pp. 231-60.


** B. Journal Articles on 18th- and 19th-Century Population Growth:


   Both of the Marshall articles are reprinted in:

and 331-43, respectively.


22. R.B. Morrow, ‘Family Limitation in Pre-Industrial England: A Re-Appraisal,’ and:

E.A. Wrigley, ‘Marital Fertility in Seventeenth-Century Colyton: A Note,’ both in:


30. Roger Finlay, ‘Natural Decrease in Early-Modern Cities,’ and
Allan Sharlin, ‘Natural Decrease in Early Modern Cities: A Rejoinder,’ both in: 


41. Roger S. Schofield, ‘Through a Glass Darkly: The Population History as an Experiment in History,’ *Journal of Interdisciplinary History*, 15 (Spring 1985), 571-94. In this same issue, see also the following articles.


(c) Ronald Lee, ‘Population Homeostasis and English Demographic History,’ pp. 609 - 34.

**

(e) Brinley Thomas, ‘Escaping from Constraints: The Industrial Revolution in a Malthusian Context,’ pp. 729 - 54.


C. **Fertility and The ‘European Marriage Pattern’:**

*Marriage Patterns, Family Structures, and Fertility in Late Medieval and Early Modern Europe.* In chronological order of publication


7. R.B. Morrow, ‘Family Limitation in Pre-Industrial England: A Re-Appraisal,’ and:

E.A. Wrigley, ‘Marital Fertility in Seventeenth-Century Colyton: A Note,’ both in:


*11. P.P.A. Biller, ‘Birth Control in the West in the Thirteenth and Early Fourteenth Centuries,’ *Past and Present*, no. 94 (Feb. 1982), 3-26.*


20. David Herlihy, Medieval Households (Cambridge, Mass. 1985), chapters 4, 5, and 6 (pp. 79 - 156), for later medieval marriage patterns, parenthood, childhood, etc..


(b) Roger Schofield, ‘Did Mothers Really Die?’ pp. 231-60.

(c) P.P. Viazzo, ‘Illegitimacy and the European Marriage Pattern: Comparative Evidence from the Alpine Area,’ pp. 100-21.


25. Walter Prevenier, ed., *Marriage and Social Mobility in the Late Middle Ages/ Mariage et mobilité sociale au bas moyen-âge*, Studia Historica Gandensia no. 274 (Ghent, 1989).


**D. Studies on European Mortality: Plague and Other Diseases, Climate, Famines, Diet, Nutrition, Health**


24. Roger Finlay, ‘Natural Decrease in Early Modern Cities,’ and:

Allan Sharlin, ‘Natural Decrease in Early Modern Cities: A Rejoinder,’ both in:


Interdisciplinary History (Princeton, 1981):


(b) Andrew Appleby, ‘Epidemics and Famine in the Little Ice Age,’ pp. 63-84.


(d) John Eddy, ‘Climate and the Role of the Sun,’ pp. 145-68.

Note: All of these studies are available also in their original format as Journal of Interdisciplinary History, 10 (Spring 1980), No. 4.


(c) Keith Wrightson and David Levine, ‘Death in Whickham,’ pp. 129 - 65.


(e) Jacques Dupâquier, ‘Demographic Crises and Subsistence Crises in France, 1650 - 1725,’ pp. 189 - 199.

(f) David R. Weir, ‘Markets and Mortality in France, 1600 - 1789,’ pp. 201 - 34.

(g) E. A. Wrigley, ‘Some Reflections on Corn Yields and Prices in Pre-Industrial Economies,’ pp. 235 - 78.


E. General Studies on British and Continental Economic Growth: with Specific Reference to Demographic Factors and Living Standards:


   (b) Herbert Heaton, ‘Industrial Revolution,’ pp. 31-52.
   (c) R.M. Hartwell, ‘The Causes of the Industrial Revolution: An Essay in
Methodology,’ pp. 53-80.


(f) Elizabeth Gilboy, ‘Demand as a Factor in the Industrial Revolution,’ pp. 121-38.

(g) François Crouzet, ‘England and France in the Eighteenth Century: A Comparative Analysis of Two Economic Growths,’ pp. 139-74.


(a) W.A. Cole, ‘Factors in Demand, 1700-1780,’ pp. 36-65.


19. Peter Lindert and Jeffrey Williamson, ‘Revising England's Social Tables, 1688-1812,’
Explorations in Economic History, 19 (1982), 305-408.


32. C. H. Lee, The British Economy Since 1700: A Macroeconomic Perspective (Cambridge,
33. N. F. R. Crafts, ‘British Economic Growth, 1700 - 1850: Some Difficulties of Interpretation,’ Explorations in Economic History, 24 (July 1987), 245 - 68. In this same issue, see also the following debate about Craft's views:

(a) Jeffrey Williamson, ‘Debating the Industrial Revolution,’ pp. 269-92; and also:


QUESTIONS ON POPULATION

** 1. Did population growth help to foster industrial growth in Great Britain in the 18th and 19th centuries -- was it one of the ‘causes’ of the Industrial Revolution? Or did the prior processes of economic growth and then of industrialization itself directly promote British population growth?

2. Why was English (and European) population either stagnant or declining during the mid and later 17th century and early 18th century? And why did both English and European population begin to grow again from about the mid-18th century?

3. Why did British and European population grow so much faster from the mid-18th through the 19th century, than ever before, earning the term ‘Demographic Revolution’? If you believe that some type of ‘Malthusian’ or other checks had halted population growth in the past, why did such ‘checks’ fail to halt population growth after ca. 1750?

4. Which was the more powerful factor in that population growth in the 18th and 19th centuries: the birth rate or the death rate? Did their relative demographic importance change over this period? Discuss all the factors influencing birth and death rates.

* 5. During the early-modern and Industrial Revolution eras, in Britain, what was the effect of population growth upon real wages and living standards; and conversely, what were the effects of changes in real wages and employment opportunities upon population growth: in terms of marriage rates, fertility, live birth rates, death rates?

6. What is the evidence for a ‘European marriage pattern’ (Hajnal)? What evidence is there that in early-modern Europe the average age of first marriage, fertility, birth rates, and completed family size were related to economic circumstances?

7. Evaluate the significance of disease as a factor in British demographic change and growth from ca. 1650 to 1900? Did death rates increase with urbanization -- industrial urbanization?

8. How important were advances in medicine, public health and nutrition as factors in British population growth during the 18th and 19th centuries?

9. How did the processes of both agricultural modernization (with Enclosures) and urban industrialization affect or influence both the growth of British population and the distribution of that larger population from ca. 1750 to ca. 1870?

10. In what areas of England did population grow faster in this period: the north or the south, or the Midlands; in rural or urban areas; in agricultural or industrial-commercial counties?

11. How, when, where, and why did British industries secure their labour supplies during the later 18th and 19th centuries: from migration or from natural increases (in industrial regions), or both?

12. How did England manage to feed and support a population that had grown six-fold, from
about 6 million in the 1740s to 36 million in 1910?
Table 1.

Estimated Populations of England and Wales in Millions, and Crude Birth and Death Rates per 1000: according to Wrigley-Schofield (1541 - 1871) and Mitchell and Deane (1880 - 1910)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population in Millions</th>
<th>Birth Rates per 1000</th>
<th>Death Rates per 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1541</td>
<td>2.970</td>
<td>39.8</td>
<td>29.4</td>
</tr>
<tr>
<td>1551</td>
<td>3.224</td>
<td>38.8</td>
<td>26.0</td>
</tr>
<tr>
<td>1561</td>
<td>3.196</td>
<td>34.7</td>
<td>32.9</td>
</tr>
<tr>
<td>1571</td>
<td>3.503</td>
<td>32.8</td>
<td>24.4</td>
</tr>
<tr>
<td>1581</td>
<td>3.853</td>
<td>34.3</td>
<td>21.8</td>
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<tr>
<td>1591</td>
<td>4.175</td>
<td>32.6</td>
<td>26.9</td>
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<td>1601</td>
<td>4.401</td>
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</tr>
<tr>
<td>1611</td>
<td>4.729</td>
<td>32.3</td>
<td>26.1</td>
</tr>
<tr>
<td>1621</td>
<td>5.026</td>
<td>32.7</td>
<td>23.5</td>
</tr>
<tr>
<td>1631</td>
<td>5.239</td>
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<td>24.1</td>
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<tr>
<td>1641</td>
<td>5.453</td>
<td>32.4</td>
<td>28.6</td>
</tr>
<tr>
<td>1651</td>
<td>5.599</td>
<td>26.8</td>
<td>24.6</td>
</tr>
<tr>
<td>1661</td>
<td>5.505</td>
<td>26.8</td>
<td>26.3</td>
</tr>
<tr>
<td>1671</td>
<td>5.336</td>
<td>29.7</td>
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<td>1681</td>
<td>5.280</td>
<td>30.1</td>
<td>35.4</td>
</tr>
<tr>
<td>1691</td>
<td>5.280</td>
<td>31.6</td>
<td>28.7</td>
</tr>
<tr>
<td>1701</td>
<td>5.416</td>
<td>33.1</td>
<td>26.5</td>
</tr>
<tr>
<td>1711</td>
<td>5.601</td>
<td>28.8</td>
<td>27.3</td>
</tr>
<tr>
<td>1721</td>
<td>5.730</td>
<td>33.0</td>
<td>31.4</td>
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<td>1731</td>
<td>5.636</td>
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<td>35.0</td>
</tr>
<tr>
<td>1741</td>
<td>5.971</td>
<td>32.9</td>
<td>31.6</td>
</tr>
<tr>
<td>Year</td>
<td>Population</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>1751</td>
<td>6.181</td>
<td>33.8</td>
<td>26.2</td>
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<td>1761</td>
<td>6.582</td>
<td>33.9</td>
<td>28.7</td>
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<td>1771</td>
<td>6.905</td>
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<td>7.541</td>
<td>35.6</td>
<td>28.8</td>
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<td>1791</td>
<td>8.288</td>
<td>39.1</td>
<td>26.2</td>
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<td>1801</td>
<td>9.278</td>
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<td>27.1</td>
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<td>1811</td>
<td>10.586</td>
<td>39.5</td>
<td>25.6</td>
</tr>
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<td>1821</td>
<td>12.306</td>
<td>40.8</td>
<td>24.1</td>
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<td>1831</td>
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</tr>
<tr>
<td>1841</td>
<td>16.031</td>
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<td>22.3</td>
</tr>
<tr>
<td>1851</td>
<td>17.922</td>
<td>35.8</td>
<td>22.8</td>
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<tr>
<td>1861</td>
<td>20.279</td>
<td>36.2</td>
<td>21.9</td>
</tr>
<tr>
<td>1871</td>
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<td>21.9</td>
</tr>
<tr>
<td>1880*</td>
<td>26.000</td>
<td>32.9</td>
<td>19.2</td>
</tr>
<tr>
<td>1890*</td>
<td>29.000</td>
<td>30.0</td>
<td>18.3</td>
</tr>
<tr>
<td>1900*</td>
<td>32.500</td>
<td>27.6</td>
<td>15.9</td>
</tr>
<tr>
<td>1910*</td>
<td>36.100</td>
<td>21.8</td>
<td>14.5</td>
</tr>
</tbody>
</table>

**Sources:**

E.A. Wrigley and R.S. Schofield, *The Population History of England, 1541 - 1871: A Reconstruction* (Cambridge, 1980), pp. 528 - 29, for the years 1541 - 1871. The figures they present are for England alone, less the country of Monmouthshire. To present the figures in the usual form, for England and Wales together, I have divided their annual data by 0.93383 (as indicated on p. 557, note to Table A5.3).


**Table 2.**
## Average (Mean) Age of First Marriage, 1560-1837

<table>
<thead>
<tr>
<th>Period</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1560 - 99</td>
<td>28.1 years</td>
<td>27.0 years</td>
</tr>
<tr>
<td>1600 - 29</td>
<td>27.4</td>
<td>27.3</td>
</tr>
<tr>
<td>1630 - 46</td>
<td>25.8</td>
<td>26.5</td>
</tr>
<tr>
<td>1647 - 59</td>
<td>26.9</td>
<td>30.0</td>
</tr>
<tr>
<td>1660 - 99</td>
<td>27.6</td>
<td>28.8</td>
</tr>
<tr>
<td>1700 - 19</td>
<td>28.1</td>
<td>30.7</td>
</tr>
<tr>
<td>1720 - 49</td>
<td>26.2</td>
<td>27.2</td>
</tr>
<tr>
<td>1750 - 69</td>
<td>25.0</td>
<td>26.3</td>
</tr>
<tr>
<td>1770 - 99</td>
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<td>1800 - 24</td>
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<td>24.9</td>
</tr>
<tr>
<td>1825 - 37</td>
<td>25.9</td>
<td>23.3</td>
</tr>
</tbody>
</table>
Table 3.

**Demographic Profile of Colyton, 1560 - 1837**

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Age of First Marriage for:</th>
<th>Completed Family Size of Women who married under 30</th>
<th>Period</th>
<th>Life Expectancy of Both Sexes at Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Females</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1560-1646</td>
<td>27</td>
<td>27</td>
<td>6.4</td>
<td>1538-1624</td>
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<tr>
<td>1647-1719</td>
<td>28</td>
<td>30</td>
<td>4.2</td>
<td>1625-1699</td>
</tr>
<tr>
<td>1720-1769</td>
<td>26</td>
<td>27</td>
<td>4.4</td>
<td>1700-1774</td>
</tr>
<tr>
<td>1770-1837</td>
<td>27</td>
<td>25</td>
<td>5.9</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**

### Table 4.

**English and French Population, 1681 - 1821**

<table>
<thead>
<tr>
<th>Year</th>
<th>England and Wales</th>
<th>England only</th>
<th>France</th>
<th>England as % of France</th>
</tr>
</thead>
<tbody>
<tr>
<td>1681</td>
<td>5.28</td>
<td>4.93</td>
<td>22.4</td>
<td>22%</td>
</tr>
<tr>
<td>1821</td>
<td>12.31</td>
<td>11.49</td>
<td>30.2</td>
<td>38%</td>
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</table>

### Table 5.

**Growth Rates of English, French, and Dutch Populations from 1681 to 1821 (% per annum)**

<table>
<thead>
<tr>
<th>Country</th>
<th>% per annum</th>
<th>Overall % growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>0.95%</td>
<td>133%</td>
</tr>
<tr>
<td>France</td>
<td>0.28%</td>
<td>39%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.06%</td>
<td>8%</td>
</tr>
<tr>
<td>Population Totals (millions)</td>
<td>1550</td>
<td>1680</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>England</td>
<td>3.0</td>
<td>4.9</td>
</tr>
<tr>
<td>France</td>
<td>17.0</td>
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<td>Netherlands</td>
<td>1.2</td>
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<tr>
<td>Spain</td>
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<td>Italy</td>
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<td>Germany</td>
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<td>12.0</td>
</tr>
<tr>
<td>Western Europe</td>
<td>61.1</td>
<td>71.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage Growth Rates (Overall: for periods designated)</th>
<th>1550-1680</th>
<th>1680-1820</th>
<th>1820-1900</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>64</td>
<td>133</td>
<td>166</td>
</tr>
<tr>
<td>France</td>
<td>29</td>
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<td>26</td>
</tr>
<tr>
<td>Netherlands</td>
<td>58</td>
<td>8</td>
<td>149</td>
</tr>
<tr>
<td>Spain</td>
<td>-6</td>
<td>64</td>
<td>33</td>
</tr>
<tr>
<td>Italy</td>
<td>9</td>
<td>53</td>
<td>77</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>51</td>
<td>142</td>
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<td>Western Europe</td>
<td>18</td>
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<td>73</td>
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