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**Economics 301Y1:**

**Economic History of Later Medieval and Early Modern Europe, 1250 - 1750**

**Topic No. 6 [13]:**

**The Population Problem and Economic Development in Early-Modern Europe, 1500 -1700:**

**Was There a ‘Malthusian Trap’ in Early-Modern Europe?**

**READINGS:**

The most and more important readings are indicated by asterisks: \*\* and \*

Within each section, all readings, except collections of reprinted essays, are listed in chronological order of original publication (when that date can be ascertained).

**A. Important Readings: General and Particular**

- \* 1. E.H. Phelps Brown and Sheila V. Hopkins, ‘Wage Rates and Prices: Evidence of Population Pressure in the Sixteenth Century’, Economica, 24 (Nov. 1957), 289-305, reprinted in E. H. Phelps Brown and S. V. Hopkins, A Perspective of Wages and Prices (London, 1981), pp. 60-77.
- \* 2. E.A. Wrigley, ‘Family Limitation in Pre-Industrial England’, Economic History Review, 2nd ser. 19 (1966), 82-109; reprinted in Michael Drake, ed., Population in Industrialization (London, 1969), pp. 157-92.
- \*\* 3. Karl F. Helleiner, ‘The Population of Europe from the Black Death to the Eve of the Vital Revolution’, in E. E. Rich and C. H. Wilson, ed., The Cambridge Economic History of Europe, Vol. IV: The 16th and 17th Centuries (Cambridge, 1967), pp. 58-95.
- \* 4. J.D. Chambers, Population, Economy, and Society in Pre-Industrial England (London, 1972), Chapter 1, ‘The General Course of Population Change, 1086-1801’, pp. 9-32. But see also Chapters 2 (‘Marriage and Mobility’), 3 (‘Marriage and Fertility’), 4 (‘The Chances of Life and the Autonomous Death Rates’), and 6 (‘Population and the Economy in Pre-Industrial England: A Summary’).
- \*\* 5. Ralph Davis, The Rise of the Atlantic Economies (London, 1973), Chapter 6: ‘Sixteenth and Seventeenth Centuries: Population, Prices, and Incomes’, pp. 88-107.
- \* 6. Donald Woodward, ‘Wage Rates and Living Standards in Pre-Industrial England’, Past and

Present, No. 91 (May 1981), 28-46.

- \*\* 7. E.A. Wrigley and R.S. Schofield, The Population History of England, 1541-1871: A Reconstruction (London and Cambridge Mass., 1981; 2nd edn. with new introduction, Cambridge and New York, 1989).
- \*\* 8. D.M. Palliser, 'Tawney's Century: Brave New World or Malthusian Trap?' Economic History Review, 2nd ser. 35:3 (Aug. 1982), 339-53.
- \* 9. Michael Flinn, 'The Population History of England, 1541-1871: A Review', Economic History Review, 2nd ser. 35 (Aug. 1982), 443-57. A review of E. A. Wrigley and Roger Schofield, The Population History of England, 1541-1871 (London, 1981), cited above (and below)
- \*\* 10. Peter Lindert, 'English Living Standards, Population Growth, and Wrigley-Schofield', Explorations in Economic History, 20:2 (April 1983), 131-55.
- \* 11. Peter Lindert, 'English Population, Wages, and Prices: 1541-1913', Journal of Interdisciplinary History, 15:4 (Spring 1985), 609-34.
- \*\* 12. R. A. Houston, The Population History of Britain and Ireland, 1500 - 1750, Studies in Economic and Social History (London: Macmillan Press, 1991).
- 13. Alain Blum, Noël Blum, and Didier Blanchet, eds., Modèles de la démographie historique, Institut National d'Études Démographiques (Paris: Presses Universitaires de France, 1992).
- \*\* 14. Jan de Vries, 'Population', in Thomas A. Brady, jr., Heiko O. Oberman, and James D. Tracy, eds., Handbook of European History, 1400-1600: Late Middle Ages, Renaissance and Reformation, Vol. I: Structures and Assertions (Leiden/New York/Cologne: E.J. Brill, 1994), pp. 1 - 50.
- \* 15. E. A. Wrigley, R.S. Davies, J.E. Oeppen, and R. S. Schofield, English Population History from Family Reconstitution, Cambridge Studies in Population, Economy and Society in Past Time no. 32 (Cambridge and New York: Cambridge University Press, 1997).
- \* 16. David Levine, 'Sampling History: The English Population', Journal of Interdisciplinary History, 28:4 (Spring 1998), 605-32. A review article, very critical in tone, based on: E.A. Wrigley, R.S. Davies, J.E. Oeppen, and R.S. Schofield, English Population History from Family Reconstruction, 1580 - 1837 (Cambridge and New York: Cambridge University Press, 1997).
- \* 17. John Komlos, 'The Industrial Revolution as the Escape from the Malthusian Trap', The Journal of European Economic History, 29:2-3 (Fall - Winter 2000), 307-31.
- \* 18. P.M.G. Harris, The History of Human Populations, vol. I: Forms of Growth and Decline (Westport: Praeger, 2001).

19. Richard Lawton and Robert Lee, eds., Population and Society in Western European Port-Cities, c. 1650 - 1939 (Liverpool: Liverpool University Press, 2002).
- \*\* 20. John Hatcher, 'Understanding the Population History of England, 1450 - 1750', Past & Present, no. 180 (August 2003), 83-130.
- \* 21. Andrew Hinde, England's Population: A History Since the Domesday Survey (London: Hodder Arnold, 2003).
22. P.M.G. Harris, The History of Human Populations, vol. II: Migration, Urbanization, and Structural Change (Westport: Praeger, 2003).
- \* 23. E. Anthony Wrigley, Poverty, Progress, and Population (Cambridge and New York: Cambridge University Press, 2004).
- \* 24. Gregory Clark and Gillian Hamilton, 'Survival of the Richest: The Malthusian Mechanism in Pre-Industrial England', Journal of Economic History, 66:3 (September 2006), 707 - 736.

**B. General Readings: Methodological and Demographic Surveys for Europe**

1. Thomas R. Malthus, An Essay on the Principle of Population, 1st edn. (London, 1798); 6th edn., 2 vols. (London, 1826).
2. A.M. Carr-Saunders, The Population Problem: A Study in Human Evolution (Oxford, 1922).
3. A. M. Carr-Saunders, World Population: Past Growth and Present Trends (Oxford, 1936), Chapters 5-8.
4. Roger Mols, Introduction à la démographie historique des villes d'Europe du XIVe au XVIIIe siècles, 3 vols. (Louvain-Gembloux, 1954-56). See Vol. I on methodology.
5. Karl Helleiner, 'New Light on the History of Urban Populations', Journal of Economic History, 18 (1958), 56-61. A review-article concerning the Mols volumes (1954-56).
6. E.A. Wrigley, Industrial Growth and Population Change (London, 1961).
7. Carlo Cipolla, The Economic History of World Population (London, 1962), pp. 24-31, 62-72, 73-117.
- \* 8. B. H. Slicher-Van Bath, The Agrarian History of Western Europe, A.D. 500-1850 (London, 1963), pp. 18-28, 144-45, 192-205, 205-39; but especially Part III, Section A, 'Population', pp. 77-97.

- \* 9. Peter Laslett, The World We Have Lost (London, 1965; 2nd edn. 1971):
- (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.
- \*\* 10. D.V. Glass and D.E.C. Eversley, eds., Population in History (London, 1965). See the following essays:

**Part I: General**

- (a) D.V. Glass, 'Introduction', pp. 1-22. [Original essay].
- (b) D.E.C. Eversley, 'Population, Economy, and Society', pp. 23-69. [Original essay.]
- (c) Louis Chevalier, 'Towards a History of Population', pp. 70-78. [Reprinted from Population, 1 (1948), 245-56.]
- (d) Karl F. Helleiner, 'The Vital Revolution Reconsidered', pp. 79-86. [Reprinted from The Canadian Journal of Economics and Political Science, 23 (1957), with minor revisions.]
- (e) J. Hajnal, 'European Marriage Patterns in Perspective', pp. 101-43. [Original essay.]

**Part II: Great Britain**

- (a) H.J. Habakkuk, 'The Economic History of Modern Britain', pp. 147 - 58. [Reprinted from The Journal of Economic History, 18 (1958), 486-501
- (b) D.V. Glass, 'Two Papers on Gregory King', pp. 159 - 220.
  - i) 'Introductory Note', pp. 159 - 67.
  - ii) 'Gregory King and the Population of England and Wales at the End of the Seventeenth Century', pp. 167 - 83. [Reprinted from Eugenics Review (Jan. 1946), 170 - 83.
  - iii) 'Gregory King's Estimate of the Population of England and Wales, 1695', pp. 183 - 220. [Reprinted from Population Studies, 2 (1950), 338 - 74.]
- \* (c) D.V. Glass, 'Population and Population Movements in England and Wales, 1700 to 1850', pp. 221-46. [Unpublished paper, written in 1945.]
- (d) T.H. Hollingsworth, 'A Demographic Study of the British Ducal Families', pp. 354 - 78. [Reprinted from Population Studies, 11 (1957), 4 - 26. See also the revised and extended article, 'The Demography of the British Peerage', Population Studies, 18 (1964).

- (e) J.T. Krause, 'The Changing Adequacy of English Registration, 1690-1837', pp. 379-83. [Original publication.]
- (f) D.E.C. Eversley, 'A Survey of Population in an Area of Worcestershire from 1660 to 1850, on the Basis of Parish Registers', pp. 394 - 419. [Reprinted from Population Studies, 10 (1957), 253-79.]

### Part III: Continental Europe

- (a) Pierre Goubert, 'Recent Theories and Research in French Population between 1500 and 1700', pp. 457-473.
  - (b) J. Meuvret, 'Demographic Crisis in France from the Sixteenth to the Eighteenth Century', pp. 507-22.
  - (c) Carlo Cipolla, 'Four Centuries of Italian Demographic Development', pp. 570-87.
11. J.A. Faber, 'Population Change and Economic Development in the Netherlands: Historical Survey', Afdeling Agrarische Geschiedenis Bijdragen, 12 (1965), 47-110. [Catalogued under: Wageningen, Landbouwhogeschool.]
  - \* 12. Fernand Braudel, Capitalism and Material Life, 1400-1800 (trans. Miriam Koch, London, 1967), Chapter 1, 'Weight of Numbers', pp. 1-64. See also Chapters 2-3, pp. 66-190.
  - \*\* 13. Karl Helleiner, 'Population of Europe from the Black Death to the Eve of the Vital Revolution', in E.E. Rich and Charles Wilson, eds., Cambridge Economic History of Europe, Vol. IV: 16th and 17th Centuries (Cambridge, 1967), pp. 58-95.
  14. M.R. Reinhard, André Armengaud, Jacques Dupâquier, Histoire générale de la population mondiale (Paris, 1968).
  - \* 15. E.A. Wrigley, Population and History (London, 1969), Chapters 3-4.
  16. A.C. Kelley, 'Demographic Cycles and Economic Growth: The Long Swing Reconsidered', Journal of Economic History, 19 (1969).
  17. Michael Drake, ed., Population in Industrialization (London, 1969). Read especially Drake's introduction, pp. 1-10.
  18. Harry Miskimin, The Economy of Early Renaissance Europe, 1300-1460 (1969: reissued Cambridge, 1975), Chapter 2, 'Recovery: Population and the Money Supply', and Chapter 3, 'Agriculture: the Rising Demand for Food', pp. 20-82 (but especially pp. 20-28).
  19. Frederic Mauro, Le XVIIe siècle européen: aspects économiques (Paris, 1970), chapter II:1, 'La population', pp. 156-75.

20. Fernand Braudel, The Mediterranean and the Mediterranean World in the Age of Philip II, Vol. I (London, 1972), Part Two: I.2, 'How Many People?' pp. 394-417.
- \* 21. Roger Mols, 'Population in Europe, 1500-1700', in Carlo Cipolla, ed., Fontana Economic History of Europe, Vol. II: The Sixteenth and Seventeenth Centuries (London, 1974), pp. 15-82.
22. David Loschky, 'Economic Change, Mortality, and Malthusian Theory', Population Studies, 30 (1975), 439-52.
23. Thomas McKeown, The Modern Rise of Population (London, 1976).
24. Jan De Vries, The Economy of Europe in an Age of Crisis, 1600-1750 (Cambridge, 1976), Chapter 1, 'The Age of Crisis', and Chapter 2, 'The Agrarian Economies on Divergent Paths', pp. 1-83, but especially pp. 4-16.
- \* 25. 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, Germany.
- \*\* 26. Wilhelm Abel, Agrarkrisen und Agrarkonjunktur, 3rd edn. (Berlin, 1978). Translated by Olive Ordish and reissued as Agricultural Fluctuations in Europe from the Thirteenth to the Twentieth Centuries (London, 1980). Part II, Chapters 4-6: 'Changes in the Agrarian Economy of Western and Central Europe from the Sixteenth to the Mid-Eighteenth Century', pp. 99-196.
27. W.R. Lee, ed., European Demography and Economic Growth (London, 1979).
28. David B. Grigg, Population Growth and Agrarian Change: An Historical Perspective (Cambridge, 1980). Part One, 'Methodology' (chapters 2-5), pp. 9 - 48; Part Two: 'Malthus Justified', chapters 6-9, pp. 49-114; especially chapter 8, 'England in the Sixteenth and Seventeenth Centuries', pp. 102 -14.
29. Fernand Braudel, Civilization and Capitalism, 15th - 18th Centuries, Vol. I: The Structures of Everyday Life: The Limits of the Possible, translated by Sian Reynolds (New York, 1981), chapter 1: 'Weight of Numbers', pp. 31 - 103.
- \* 30. Michael Flinn, The European Demographic System, 1500-1820 (Baltimore, 1981).
31. Esther Boserup, Population and Technological Change: A Study of Long-Term Trends (Chicago, 1981), part III: 'The Role of Demographic Factors in European Development', pp. 93-125.
32. Roderick C. Floud, 'Economics and Population Growth: A Comment', Journal of Interdisciplinary History, 14 (Autumn 1983), 439-44.
33. Ronald D. Lee, 'Inverse Projection and Back Projection: A Critical Appraisal and

- Comparative Results for England, 1539 to 1871', Population Studies, 39 (1985), 233-62.
34. Jacques Dupâquier and A. Fauve-Chamoux, eds., Malthus Past and Present (London, 1983).
35. David Coleman and Roger Schofield, The State of Population Theory: Forward from Malthus (Oxford, 1986). See especially:
- (a) Roger Schofield and David Coleman, 'Introduction: the State of Population Theory', pp. 1-13.
  - (b) David Coleman, 'Population Regulation: A Long Range View', pp. 14-41.
  - (c) Richard Stone, 'Robert Malthus: An Appreciation', pp. 42-46.
  - (d) E.A. Wrigley, 'Elegance and Experience: Malthus at the Bar of History', pp. 46-64.
  - (e) G.N. von Tunzelmann, 'Malthus's 'Total Population System': A Dynamic Reinterpretation', pp 65 - 95.
  - (f) Ronald D. Lee, 'Malthus and Boserup: A Dynamic Synthesis', pp. 96 - 130.
  - (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.
  - (i) Stephen J. Kunitz, 'Mortality Since Malthus', pp. 279 - 302.
36. George Alter and James C. Riley, 'How to Bet on Lives: A Guide to Life Contingent Contracts in Early Modern Europe', in Paul Uselding, ed., Research in Economic History, 10 (1986).
37. David Loschky and Maw Lin Lee, 'Malthusian Population Oscillations', Economic Journal, 97 (1987), 727-39.
38. John Komlos, 'On the Role of Crises in Historical Perspective', Population and Development Review, 14 (March 1988), 159 - 64.
39. Paul Bairoch, La population des villes européennes : banque de données et analyse sommaire des résultats, 800-1850/ The population of European cities : data bank and short summary of results, 800-1850 (Paris: Libraire Droz, 1988).
39. Edward Crenshaw, 'The Demographic Regime of Western Europe in the Early Modern Period: A Review of the Literature', Journal of Family History, 14 (1989), 177-89.
40. E. D. Jones, 'Going Round in Circles: Some New Evidence for Population in the Later

Middle Ages', Journal of Medieval History, 15 (1989), 329-45.

41. L. R. Poos, 'The Historical Demography of Renaissance Europe: Recent Research and Current Issues', Renaissance Quarterly, 42 (1989), 749-811.
  - \* 42. Richard M. Smith, 'Demographic Developments in Rural England, 1300-48: A Survey', in Bruce M.S. Campbell, ed., Before the Black Death: Studies in the 'Crisis' of the Early Fourteenth Century (Manchester and New York: Manchester University Press, 1991), pp. 25 - 77.
- Although this essay may appear to be too early in the period for this tutorial topic, it is in fact very relevant. It is the best analytical survey of the previous demographic crisis, arguably more deserving of the description 'Malthusian'; and Smith makes several useful comparisons between the two. He also provides a very clear analysis of Malthus and the so-called Malthusian model.
43. Ronald Lee, 'Accidental and Systematic Change in Population History: Homeostasis in a Stochastic Setting', Explorations in Economic History, 30:1 (January 1993), 1 - 30. See in particular 'The Origin of Long Swings in Historical Populations', pp. 21-28.
  44. Christian Pfister, 'The Population of Late Medieval and Early Modern Germany', Robert Scribner, ed., Germany: A New Social and Economic History, Vol. 1: 1450 - 1630 (London and New York: Arnold, 1996).
  45. E. A. Wrigley, R.S. Davies, J.E. Oeppen, and R. S. Schofield, English Population History from Family Reconstitution, Cambridge Studies in Population, Economy and Society in Past Time no. 32 (Cambridge and New York: Cambridge University Press, 1997).
  46. Michel Morineau, 'Malthus: There and Back, From the Period Preceding the Black Death to the Industrial Revolution', The Journal of European Economic History, 27:1 (Spring 1998), 137-202.
  47. Terence McIntosh, 'Urban Demographic Stagnation in Early Modern Germany: A Simulation', Journal of Interdisciplinary History, 31:4 (Spring 2001), 581-612.
  48. Jörg Baten, 'Climate, Grain Production and Nutritional Status in Southern Germany During the XVIIIth Century', The Journal of European Economic History, 30:1 (Spring 2001), 9 - 47.
  - \* 49. James C. Riley, Rising Life Expectancy: A Global History (Cambridge and New York: Cambridge University Press, 2001).
  50. R. I. Rotberg, ed., Population History and the Family (Cambridge, Mass., MIT Press, 2001).
  50. John Landers, The Field and the Forge: Population, Production, and Power in the Pre-Industrial West (Oxford and New York: Oxford University Press, 2003).



51. P.M.G. Harris, The History of Human Populations, vol. II: Migration, Urbanization, and Structural Change (Westport: Praeger, 2003).

**C. English Demography: Some Particular Studies**

1. F.J. Fisher, 'The Development of the London Food Market, 1540-1640', Economic History Review, 1st ser. 5 (1935), reprinted in E. M. Carus-Wilson, ed., Essays in Economic History, 3 vols., Vol. I (London, 1954), 135-51.
2. J.C. Russell, British Medieval Population (Albuquerque, 1948).
3. E.E. Rich, 'Elizabethan Population', Economic History Review, 2nd ser. 2 (1949-50), 247-65.
- \* 4. Joan Thirsk, 'Industries in the Countryside', in F.J. Fisher, ed., Essays in the Economic and Social History of Tudor and Stuart England, (Cambridge, 1961), pp. 70-88. A very important essay relating the dynamics of partible inheritance, population growth, and rural industrialization; but her views on the demographics of enclosure are quite opposite from those of Blanchard (no. 14 below).
5. B.R. Mitchell and Phyllis Deane, ed., Abstract of British Historical Statistics (Cambridge, 1962), Section I, 'Population and Vital Statistics', pp. 1-54. Use with care, since many of these statistics have been superseded by those of Wrigley and Schofield.
6. Y. S. Brenner, 'The Inflation of Prices in Early Sixteenth-Century England', Economic History Review, 2nd ser. 14 (1961-62), reprinted in Peter Ramsey, ed., The Price Revolution in Sixteenth-Century England (1971), pp. 69-90.
7. Y.S. Brenner, 'The Inflation of Prices in England, 1551-1650', Economic History Review, 2nd ser. 15 (19623), 266-84.
8. G.S.L. Tucker, 'English Pre-Industrial Population Trends', Economic History Review, 2nd ser. 16 (1963), 205-30.
9. E.A. Wrigley, ed., Introduction to English Historical Demography from the Sixteenth to the Eighteenth Centuries (London, 1964).
10. F.J. Fisher, 'Inflation and Influenza in Tudor England', Economic History Review, 2nd ser. 18 (1965), 120-29.
- \* 11. E.A. Wrigley, 'Family Limitation in Pre-Industrial England', Economic History Review, 2nd ser. 19 (1966), 82-109: reprinted in Michael Drake, ed., Population in Industrialization (London, 1969), pp. 157-94 (with some omissions).
12. E.A. Wrigley, 'A Simple Model of London's Importance in Changing English Society and Economy, 1650-1750', Past and Present, No. 37 (1967), 44-70.

13. J.T. Krause, 'Some Aspects of Population Change, 1690-1790', in E. L. Jones and G. E. Mingay, eds., Land, Labour, and Population in the Industrial Revolution: Essays Presented to J.D. Chambers (London, 1967), pp. 187-205.
- \* 14. R.B. Outhwaite, Inflation in Tudor and Early Stuart England (Studies in Economic History series, London, 1969; 2nd edn. 1982 -- with very few changes). Gives very considerable weight to population growth as a key factor in generating this inflation, though grudgingly admitting the necessary role of monetary factors.
15. Julian Cornwall, 'English Population in the Early Sixteenth Century', Economic History Review, 2nd ser. 23:1 (April 1970), 32-44.
- \* 16. Ian Blanchard, 'Population Change, Enclosure, and the Early Tudor Economy', Economic History Review, 2nd ser. 23:3 (December 1970), 427-45. A very important article, equally relevant for the tutorial topic on Tudor Enclosures.
17. Michael Flinn, British Population Growth, 1700-1850 (London, 1970).
18. Peter H. Ramsey, ed., The Price Revolution in Sixteenth-Century England (London, 1971). Several of the authors in this collection also give strong weight to the demographic factor in this inflation: Phelps Brown and Hopkins, Hammarstrom, and Brenner. In contrast to Outhwaite, however, they often ignore the necessary role of monetary factors.
- \* 19. F.J. Fisher, 'London as an 'Engine of Economic Growth'', in J.S. Bromley and E.H. Kossman, eds., Britain and the Netherlands, Vol. IV: Metropolis, Dominion, and Province (The Hague, 1971), pp. 3-16. An important aspect of English population growth.
- \* 20. J.D. Chambers, Population, Economy, and Society in Pre-Industrial England (London, 1972), especially chapters 1, 5, 6.
21. R.D. Lee, 'Population in Pre-Industrial England: An Econometric Analysis', Quarterly Journal of Economics, 86 (1973), 581-607.
- \* 22. Harry Miskimin, 'Population Growth and the Price Revolution in England', Journal of European Economic History, 4 (1975), 179-85. Reprinted in his Cash, Credit and Crisis in Europe, 1300 - 1600 (London: Variorum Reprints, 1989), no. xiv.
23. N.F.R. Crafts and N.J. Ireland, 'Family Limitation and the English Demographic Revolution: A Simulation Approach', Journal of Economic History, 36 (1976), 598-623. Very technical and econometric.
24. Peter Clark and Paul Slack, English Towns in Transition, 1500-1700 (1976), Chapter 6: 'Demographic Background'.
25. T.B. James and N.A. Price, 'Measurement of the Change in Populations Through Time: Capture-Recapture Analysis of Population for St. Lawrence Parish, Southampton,

1454 to 1610', The Journal of European Economic History, 5:3 (Winter 1976), 719-36.

26. Michael Flinn, ed., Scottish Population History from the Seventeenth Century to the 1930s (Cambridge, 1977).
- \* 27. John Hatcher, Plague, Population, and the English Economy, 1348-1530 (Studies in Economic History series, London, 1977), pp. 11-73. The best introduction to demographic changes and population decline in late-medieval England, the era preceding this demographic topic on early-modern England.
28. 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: Economic History Review, 2nd ser. 26 (1978), 419-28, 429-36.
- \* 29. Richard M. Smith, 'Population and its Geography in England, 1500 - 1730', in R. A. Dodgshon and R. A. Butlin, eds., An Historical Geography of England and Wales (London, 1978).
30. S. H. Rigby, 'Urban Decline in the Later Middle Ages: Some Problems in Interpreting the Statistical Data', Urban History Yearbook 1979 (Leicester University Press, 1979), pp. 46 - 59.
31. Alan Dyer, 'Growth and Decay in English Towns, 1500 - 1700', Urban History Yearbook 1979 (Leicester University Press, 1979), pp. 60 - 72.
32. C. V. Phythian-Adams, 'Dr Dyer's Urban Undulations', Urban History Yearbook 1979 (Leicester University Press, 1979), pp. 73 - 76.
- \*\* 33. E.A. Wrigley and R.S. Schofield, The Population History of England, 1541-1871: A Reconstruction (London and Cambridge Mass., 1981; 2nd edn. with new introduction, Cambridge and New York, 1989).
- See also the review article on this book by Michael Flinn, in The Economic History Review, 2nd ser. 35 (1982), 443-57.
34. Bruce M. S. Campbell, 'The Population of Early Tudor England: A Re-evaluation of the 1522 Muster Returns and the 1524 and 1525 Lay Subsidies', Journal of Historical Geography, 7 (1981), 145-54.
- \* 35. R.D. Lee and R.S. Schofield, 'British Population in the Eighteenth Century', in Roderick Floud and Donald McCloskey eds., The Economic History of Britain Since 1700 (Cambridge, 1981), Vol. I, pp. 17-35.
- \* 36. D.M. Palliser, 'Tawney's Century: Brave New World or Malthusian Trap?' Economic History Review, 2nd ser. 35 (1982), 339-53.
- \*\* 37. E.A. Wrigley, 'The Growth of Population in Eighteenth-Century England: A Conundrum

Resolved', Past and Present, No. 98 (February 1983), 121-50. Very important article that clearly summarizes conclusions of nos. 25 and 27 with considerable relevance for the pre-1750 period.

38. E.A. Wrigley and R.S. Schofield, 'English Population History from Family Reconstitution: Summary Results, 1600-1799', Population Studies, 37 (1983).
39. Roger S. Schofield, 'The Impact of Scarcity and Plenty on Population Change in England, 1541 - 1871', Journal of Interdisciplinary History, 14 (1983).
- \* 40. C. G. A. Clay, Economic Expansion and Social Change: England, 1500-1700, 2 vols. (Cambridge, 1984), Vol. I: People, Land, and Towns, Chapter I, 'Population', pp. 1-28.
41. David R. Weir, 'Rather Never than Late: Celibacy and Age at Marriage in English Cohort Fertility, 1541-1971', Journal of Family History, 9 (1984), 340-54.
42. S.H. Rigby, 'Urban Decline in the Later Middle Ages: The Reliability of the Non-Statistical Evidence', Urban History Yearbook 1984 (Leicester University Press, 1984), pp. 45 - 60.
43. Derek Keene, 'A New Study of London Before the Great Fire', Urban History Yearbook 1984 (Leicester University Press, 1984), pp. 11 - 21.
44. Roger S. Schofield, 'English Marriage Patterns Revisited', Journal of Family History, 10 (1985), 2-20.
45. Ronald D. Lee, 'Inverse Projection and Back Projection: A Critical Appraisal and Comparative Results for England, 1539 to 1871', Population Studies, 39 (1985), 233-62.
- \* 46. E. A. Wrigley, 'Urban Growth and Agricultural Change: England and the Continent in the Early Modern Period', Journal of Interdisciplinary History, 15 (Spring 1985), 683-728.
- \* 47. R. I. Rotberg and T. K. Rabb, eds., Population and Economy: Population and History from the Traditional to the Modern World (Cambridge, 1986). This is a reprint in book form of The Journal of Interdisciplinary History, 15:4 (Spring 1985), containing the following articles (with the pagination as in the journal version):
  - (a) R.S. Schofield and E.A. Wrigley, 'Introduction', pp. 561-69.
  - (b) R.S. Schofield, 'Through a Glass Darkly: The Population History of England as an Experiment in History', pp. 571-93.
  - (c) Michael Anderson, 'Historical Demography after The Population History of England', pp. 595-607.

- \* (d) Peter H. Lindert, 'English Population, Wages, and Prices: 1541-1913', pp. 609-34.
  - (e) Ronald Lee, 'Population Homeostasis and English Demographic History', pp. 635-60.
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## QUESTIONS

1. When, where, and how did Europe's population begin to recover from the last medieval contractions: in the mid-15th century, late-15th century, or early 16th century? To what extent did Europe's population grow in the course of the later 16th and early 17th centuries? Did it surpass the late-medieval peak (of ca. 1300?)
2. If Europe's population did grow larger than ever before, how was Europe able to feed, clothe, and house such a larger population? In particular how was Europe able to sustain a larger urban population than ever before: in more and larger cities? What were the sources and mechanisms for additional food supplies? How important were overseas discoveries and the New World in feeding the Old?
3. What sources and what kind of evidence have been utilized to estimate the extent of Europe's population growth in the 16th and 17th centuries? How reliable are the data for England and the continent? In particular, how reliable are wage and price data for estimating population growth?
- \* 4. Did Europe's population grow to such an extent that Europe began to experience 'Malthusian pressures' (i.e. of overpopulation) by the 17th century? If so, were the population pressures more or less severe than those experienced in the early 14th century? Again, how reliable are wage and price data as evidence for such 'Malthusian pressures': were standards of living for wage-earners depressed in the later 16th century? What happened to real incomes and standards of living of the peasantry, of landowners, of merchants and artisans? To the extent that poverty was a social problem, what factors other than over-population may have been responsible? [See also the readings on Vagrancy].
5. What were the other economic and social consequences of Europe's population growth in the 16th and 17th centuries? How and why did experiences vary in different parts of Europe?
6. In particular what industries seem to have been stimulated by population growth, and which ones were hindered by it? In general, did demographic expansion mean economic expansion and growth?
7. How did population growth encourage producers to economize on scarce resources (those with inelastic supply curves especially): in agriculture and in industry? Why did responses to demographic pressures vary by region and country?
8. How, when, where, and why did Europe's population cease to grow in the 17th century? What roles did famine, disease -- the plague especially -- warfare, limitations on fecundity/fertility play in slowing down or curbing population growth? Why did Germany, Italy, and Spain in particular appear to have suffered severe population losses in the 17th century? What effect did the cessation of demographic expansion have upon general European economic growth?
9. How, when, where, and why did the plague era come to an end in western Europe? In eastern Europe?

10. Why did population begin to grow once more in the 18th century, to constitute the modern 'demographic revolution'?
11. Is there any connection between climatic and demographic changes? What relationships, if any, are to be found between/among climate, the harvest, famine and malnutrition, disease and mortality, average age of first marriage, fecundity and live birth rates?
- \* 12. What is Hajnal's 'European Marriage Pattern' and what influence did it have on European demographic change from the 14th to 18th centuries? How does it relate demography to the economy? See section C of the bibliography.

**Table 1. The Populations of Europe, by Regions, 1500 - 1800****in millions**

<b>Region</b>	<b>1500</b>	<b>1550</b>	<b>1600</b>	<b>1650</b>	<b>1700</b>	<b>1750</b>	<b>1800</b>
<b>North West</b>	7.6	9.5	11	14.25	15.1	17.4	25.3
<b>NW %</b>	<b>12.5%</b>	<b>13.6%</b>	<b>14.1%</b>	<b>19.2%</b>	<b>18.1%</b>	<b>17.9%</b>	<b>20.7%</b>
<b>Central</b>	29	33.75	36.9	33.5	38.2	43.8	53.5
<b>Cent %</b>	<b>47.6%</b>	<b>48.3%</b>	<b>47.4%</b>	<b>45.0%</b>	<b>45.7%</b>	<b>45.1%</b>	<b>43.8%</b>
<b>Mediterranean</b>	18.3	20	22.3	19.6	22.8	26.5	31.2
<b>Med %</b>	<b>30.0%</b>	<b>28.6%</b>	<b>28.6%</b>	<b>26.3%</b>	<b>27.3%</b>	<b>27.3%</b>	<b>25.5%</b>
<b>Eastern</b>	6	6.6	7.7	7.1	7.4	9.4	12.2
<b>East %</b>	<b>9.9%</b>	<b>9.5%</b>	<b>9.9%</b>	<b>9.5%</b>	<b>8.9%</b>	<b>9.7%</b>	<b>10.0%</b>
<b>TOTAL</b>	<b>60.9</b>	<b>69.85</b>	<b>77.9</b>	<b>74.45</b>	<b>83.5</b>	<b>97.1</b>	<b>122.2</b>

Source: Jan De Vries, 'Population,' in *Handbook of European History, 1400-1600: Late Middle Ages, Renaissance, and Reformation*, Vol. I: *Structures and Assertions*, ed. Thomas Brady, Heiko Oberman and James Tracy (Leiden and New York, 1994), adapted from Table 1, p. 13.

**Table 2: Estimated Populations of England and Wales in Millions, and Crude Birth and Death Rates per 1000: according to Wrigley-Schofield (1541 - 1871)**

<b>THE POPULATION OF ENGLAND (with WALES)</b>						
<b>Quinquennial Demographic Data from Generalised Inverse Projection, 1541 - 1871</b>						
<b>Year</b>	<b>England: Population in millions</b>	<b>with Wales Population in millions</b>	<b>England: Life Expectancy at Birth</b>	<b>Intrinsic Growth Rate</b>	<b>Crude Birth Rate/1000 England only</b>	<b>Crude Death Rate/1000 England only</b>
1541	2.830	3.031	33.94	0.92	37.17	30.34
1546	2.908	3.115	38.82	1.42	37.88	25.98
1551	3.065	3.282	39.59	1.31	35.62	24.82
1556	3.213	3.440	22.38	-1.17	30.24	40.16
1561	3.036	3.251	36.66	0.97	37.06	26.70
1566	3.174	3.398	39.67	0.91	34.16	24.21
1571	3.310	3.545	41.06	0.77	32.37	22.73
1576	3.448	3.692	41.56	1.02	34.20	22.43
1581	3.631	3.889	42.70	1.27	34.12	21.56
1586	3.841	4.113	37.05	0.75	32.09	25.70
1591	3.938	4.217	38.05	0.81	32.12	24.75
1596	4.057	4.344	37.82	0.63	31.50	24.95
1601	4.162	4.457	38.53	0.75	33.24	24.77
1606	4.310	4.616	39.59	0.76	33.05	24.07
1611	4.476	4.793	36.79	0.41	31.60	26.14
1616	4.568	4.892	40.31	0.81	32.30	23.37
1621	4.745	5.081	33.39	0.11	30.91	28.85
1626	4.762	5.099	39.69	0.74	31.81	23.68
1631	4.926	5.275	39.72	0.71	31.66	23.80
1636	5.090	5.450	34.03	0.18	31.47	28.59
1641	5.130	5.494	36.32	0.43	31.97	26.79
1646	5.231	5.602	39.74	0.29	27.79	23.63
1651	5.308	5.684	39.14	0.31	28.55	24.22
1656	5.391	5.773	33.04	-0.60	25.74	28.68
1661	5.280	5.654	33.27	-0.38	28.22	28.92
1666	5.229	5.600	32.48	-0.47	28.53	30.03
1671	5.159	5.524	37.41	-0.04	28.40	26.25



<b>THE POPULATION OF ENGLAND (with WALES)</b>						
<b>Quinquennial Demographic Data from Generalised Inverse Projection, 1541 - 1871</b>						
<b>Year</b>	<b>England: Population in millions</b>	<b>with Wales Population in millions</b>	<b>England: Life Expectancy at Birth</b>	<b>Intrinsic Growth Rate</b>	<b>Crude Birth Rate/1000 England only</b>	<b>Crude Death Rate/1000 England only</b>
1676	5.185	5.552	32.40	-0.39	28.91	30.75
1681	5.109	5.471	31.27	-0.26	30.32	32.14
1686	5.036	5.393	35.93	0.47	31.87	28.56
1691	5.094	5.455	36.35	0.42	30.05	28.06
1696	5.118	5.481	38.06	0.71	31.25	26.67
1701	5.211	5.580	38.47	0.83	32.06	26.39
1706	5.334	5.712	38.50	0.45	28.48	25.67
1711	5.382	5.764	36.89	0.34	29.47	26.77
1716	5.428	5.813	35.75	0.38	31.65	27.91
1721	5.503	5.893	35.49	0.39	32.80	28.21
1726	5.602	5.999	25.34	-0.95	31.16	36.99
1731	5.414	5.798	36.34	0.58	35.13	27.46
1736	5.599	5.996	35.26	0.46	33.79	28.47
1741	5.723	6.129	34.27	0.24	31.71	28.78
1746	5.782	6.191	36.47	0.62	32.68	27.02
1751	5.922	6.342	39.77	0.99	32.97	24.61
1756	6.149	6.584	38.12	0.75	31.87	25.82
1761	6.310	6.757	35.37	0.61	33.48	28.29
1766	6.449	6.906	36.19	0.68	33.88	27.69
1771	6.623	7.093	39.09	1.01	34.90	25.47
1776	6.913	7.403	37.74	0.99	35.76	26.57
1781	7.206	7.717	35.81	0.76	34.86	27.81
1786	7.434	7.960	38.97	1.25	36.89	25.23
1791	7.846	8.402	37.92	1.22	37.17	26.07
1796	8.256	8.841	38.93	1.15	35.51	24.82
1801	8.671	9.286	40.02	1.43	37.60	24.08
1806	9.232	9.887	40.58	1.52	37.90	23.68
1811	9.864	10.563	41.25	1.69	39.18	23.25
1816	10.628	11.381	40.84	1.70	39.48	23.54
1821	11.457	12.269	40.47	1.75	40.22	23.73

<b>THE POPULATION OF ENGLAND (with WALES)</b>						
<b>Quinquennial Demographic Data from Generalised Inverse Projection, 1541 - 1871</b>						
<b>Year</b>	<b>England:</b>	<b>with Wales</b>	<b>England: Life</b>	<b>Intrinsic</b>	<b>Crude Birth</b>	<b>Crude Death</b>
	<b>Population</b>	<b>Population</b>	<b>Expectancy</b>	<b>Growth</b>	<b>Rate/1000</b>	<b>Rate/1000</b>
	<b>in millions</b>	<b>in millions</b>	<b>at Birth</b>	<b>Rate</b>	<b>England only</b>	<b>England only</b>
<b>1826</b>	12.374	13.250	41.43	1.56	37.30	22.40
<b>1831</b>	13.254	14.193	40.89	1.36	36.03	22.43
<b>1836</b>	14.100	15.099	40.56	1.19	35.27	22.47
<b>1841</b>	14.937	15.995	41.71	1.23	35.61	21.61
<b>1846</b>	15.910	17.037	38.99	0.92	35.06	23.71
<b>1851</b>	16.732	17.918	40.46	1.11	35.98	22.65
<b>1856</b>	17.781	19.040	41.53	1.22	35.89	21.92
<b>1861</b>	18.976	20.320	40.62	1.24	36.30	22.71
<b>1866</b>	20.222	21.655	41.47	1.31	35.95	22.06
<b>1871</b>	21.501	23.024			35.00	22.60
<b>1881</b>		26.046			33.90	18.90
<b>1891</b>		29.086			31.40	20.20
<b>1901</b>		32.612			28.50	16.90
<b>1911</b>		36.136			24.30	14.60

**Source:** E. A. Wrigley, R.S. Davies, J.E. Oeppen, and R. S. Schofield, *English Population History from Family Reconstitution*, Cambridge Studies in Population, Economy and Society in Past Time no. 32 (Cambridge and New York: Cambridge University Press, 1997), pp. 613-17. See also: 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 now Welsh 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).

### Other Estimates of English Population Growth, 1880 - 1910

<b>Year</b>	<b>Population in Millions</b>	<b>Birth Rates per 1000</b>	<b>Death Rates per 1000</b>
<b>1880</b>	26.000	32.9	19.2
<b>1890</b>	29.000	30.0	18.3
<b>1900</b>	32.500	27.6	15.9
<b>1910</b>	36.100	21.8	14.5

**Sources:** B. R. Mitchell and Phyllis Deane, eds., *Abstract of British Historical Statistics* (Cambridge, 1962), pp. 29 - 37 for 1880-1910.

**Table 3. Changing Demography of Colyton, Devonshire (England)**

**Average (Mean) Age of First Marriage, 1560-1837**

<b>Period</b>	<b>Men</b>	<b>Women</b>
<b>1560 - 99</b>	28.1 years	27.0 years
<b>1600 - 29</b>	27.4	27.3
<b>1630 - 46</b>	25.8	26.5
<b>1647 - 59</b>	26.9	30.0
<b>1660 - 99</b>	27.6	28.8
<b>1700 - 19</b>	28.1	30.7
<b>1720 - 49</b>	26.2	27.2
<b>1750 - 69</b>	25.0	26.3
<b>1770 - 99</b>	27.6	26.4
<b>1800 - 24</b>	25.6	24.9
<b>1825 - 37</b>	25.9	23.3

**Table 4.****Demographic Profile of Colyton, 1560 - 1837**

<b>Period</b>	<b>Average Age of First Marriage for:</b>		<b>Completed Family Size of Women who married under 30</b>	<b>Period</b>	<b>Life Expectancy of Both Sexes at Birth</b>
	<b>Males</b>	<b>Females</b>			
<b>1560-1646</b>	27	27	6.4	<b>1538-1624</b>	43 years
<b>1647-1719</b>	28	30	4.2	<b>1625-1699</b>	37
<b>1720-1769</b>	26	27	4.4	<b>1700-1774</b>	42
<b>1770-1837</b>	27	25	5.9		

**Sources:**

E.A. Wrigley, 'Family Limitation in Pre-Industrial England,' *Economic History Review*, 2nd ser. 19 (1966), 82-109.

E.A. Wrigley, *Population and History* (1969), p. 87.

**Table 5. Mean Age of First Marriage, i.e., in Bachelor-Spinster Marriages in England (various counties, over time), in ten-year intervals**

<b>DECADE</b>	<b>MALES</b>	<b>FEMALES</b>
1590 - 99	29.3	25.6
1600 - 09	28.3	25.7
1610 - 19	27.5	25.6
1620 - 29	27.6	25.2
1630 - 39	27.3	25.2
1640 - 49	27.4	25.7
1650 - 59	27.5	25.6
1660 - 69	27.4	25.9
1670 - 79	28	26.2
1680 - 89	27.7	25.8
1690 - 99	27.1	25.9
1700 - 09	27.4	26.0
1710 - 19	27.3	26.3
1720 - 29	27	25.9
1730 - 39	26.9	25.5
1740 - 49	26.5	24.8
1750 - 59	26.1	25.0
1760 - 69	25.9	24.5
1770 - 79	26.1	24.3
1780 - 89	25.9	24.0
1790 - 99	25.3	24.0
1800 - 09	25.3	24.0
1810 - 19	25.1	23.6

<b>DECADE</b>	<b>MALES</b>	<b>FEMALES</b>
<b>1820 - 29</b>	25.2	23.8
<b>1830 - 39</b>	24.9	23.1

**Source:** E.A. Wrigley, R.S. Davies, J.E. Oeppen, and R.S. Schofield, *English Population History from Family Reconstitution, 1580- 1837* (Cambridge and New York: Cambridge University Press, 1997), pp. 130- 34.

**Table 6: English and French Population, 1681 - 1821**

<b>Year</b>	<b>England and Wales</b>	<b>England only</b>	<b>France</b>	<b>England as % of France</b>
<b>1681</b>	5.28	4.93	22.4	22%
<b>1821</b>	12.31	11.49	30.2	38%

**Table 7: Growth Rates of English, French, and Dutch Populations from 1681 to 1821 (% per annum)**

<b>Country</b>	<b>% per annum</b>	<b>Overall % growth</b>
<b>England</b>	0.95%	133%
<b>France</b>	0.28%	39%
<b>Netherlands</b>	0.06%	8%



**Table 8. Estimated Population Totals and Percentage Growth Rates\***

	<b>Population Totals (millions)</b>			
	<b>1550</b>	<b>1680</b>	<b>1820</b>	<b>1900</b>
<b>England</b>	3.0	4.9	11.5	30.5
<b>France</b>	17.0	21.9	30.5	38.5
<b>Netherlands</b>	1.2	1.9	2.0	5.1
<b>Spain</b>	9.0	8.5	14.0	18.6
<b>Italy</b>	11.0	12.0	18.4	32.5
<b>Germany</b>	12.0	12.0	18.1	43.6
<b>Western Europe</b>	61.1	71.9	116.5	201.4

	<b>Percentage Growth Rates (Overall: for periods designated)</b>		
	<b>1550-1680</b>	<b>1680-1820</b>	<b>1820-1900</b>
<b>England</b>	64	133	166
<b>France</b>	29	39	26
<b>Netherlands</b>	58	8	149
<b>Spain</b>	-6	64	33
<b>Italy</b>	9	53	77
<b>Germany</b>	0	51	142
<b>Western Europe</b>	18	62	73

**\* Notes and sources:** The totals shown become progressively more accurate. Some of those for 1550 and 1680 are subject to very wide margins of error. In many cases the figures used are based on estimates for dates close to the year heading each column rather than for the year itself. The estimates refer to the present territories of the countries shown. The English data exclude Wales and Monmouthshire. For 1820 and 1900 all totals are taken from or estimated from B.R. Mitchell, *European Historical Statistics*, 2nd edn. (Cambridge, 1981), table BI, except for England in 1820. Otherwise the most important sources used were the following: E.A. Wrigley and R.S. Schofield, *The Population History of England, 1541-1871: A Reconstruction* (London, 1981), table 7.8; B.R. Mitchell and P. Deane, *Abstract of British Historical Statistics* (Cambridge, 1962), chapter I, tables 2, 7; M. Reinhard, A. Arnmengaud and J. Dupaquier, *Histoire générale de la population mondiale*, 3rd edn. (Paris, 1968); J. Dupâquier, *La population française aux XVIIe et XVIIIe siècles* (Paris, 1979); C. McEvedy and R. Jones, *Atlas of World Population History* (London, 1978); M. Flinn, ed., *Scottish Population History from the 17th Century to the 1930s* (Cambridge, 1977); C.M. Cipolla, 'Four Centuries of Italian Demographic Development', and K.H. Connell, 'Land and Population in Ireland, 1780-1845', both in D.V. Glass and D.E.C. Eversley, eds., *Population in History* (London, 1965); J.A. Faber, H.K. Roessingh, B.H. Slicher van Bath, A.M. Van der Woude and H.J. Van Xanten, 'Population Changes and Economic Developments in the Netherlands: A Historical Survey', *A.A.G. Bijdragen*, 12 (1965).

**Table 9.**

**Estimates of the Population of London**

<b>1500</b> (estimate)	50,000 (or more)
<b>1600</b>	200,000
<b>1650</b>	350,000
<b>1750</b>	550,000
<b>1801</b> (census)	1,088,000
<b>1851</b> (census)	2,491,000

**Table 10. Number of Cities in the Indicated Population Range**

<b>Year</b>	<b>50,000- 100,000</b>	<b>100,000 400,000</b>	<b>Over 400,000</b>
<b>1300</b>	4	3 (or 4?)	0
<b>1500</b>	5	5	0
<b>1650</b>	14	12	3