Some Emerging Issues in the Demography of Medieval England and Prospects for their Future Investigation

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Abstract

This brief overview of recent and possible future areas for developments in the field of medieval English demography examines recent work on male mortality and female marriage patterns, focusing especially on analysis of the inquisitiones post mortem *and various other manorial records. It stresses the degree of uncertainty surrounding demographic analyses based on these data, and the challenges facing those who seek to derive demographic indicators. It concludes that much more is now known with some confidence about male adult mortality than female nuptiality and hence fertility, leading to considerable asymmetry in our current basic demographic knowledge.*

In this brief overview of recent and possible future areas for developments in the field of medieval English demography the emphasis is on the potential of local studies based in part on some of the most promising, and in some cases much debated and contested approaches that have emerged since *Local Population Studies'* inception in 1968. To adopt a starting line in that year should not be interpreted as intending to devalue work undertaken before that date. In fact, Josiah Russell had been innovatively precocious in his use of formal demographic procedures in his monograph published in 1948 and while it may have suffered subsequently from considerable criticism it engages with methodological challenges that in recent decades have stimulated much that is now done by those practising historical demography as a recognisable sub-discipline concerned with all time periods.[1] Furthermore, M.M. Postan's work begun before and extended after World War II endowed population levels and rates of change with a central role in his theses regarding the changing character of the rural English economy from the eleventh to the early sixteenth centuries. However, his work and that of those who were engaged in a similar approach was based principally on such parameters as land holding sizes, rents, prices, peasant inheritance, settlement colonisation and desertion as correlates of demographic change.[2] In the mid-1960s there appeared three papers coinciding roughly with the very early years of parish register based historical demography in England that can be argued to have had a significant impact on the fashioning of key issues in the conceptual and methodological

1 J.C. Russell, *British Medieval Population* (Albuquerque, New Mexico, 1948).

2 This work is summarised in M.M. Postan, *The Medieval Economy and Society: an Economic History of Britain in the Middle Ages* (Harmondsworth, 1972).

frameworks of what subsequently emerged as a self-evident medieval English demographic history. It may be helpful to assess how far issues raised by those three papers have stimulated recent research and brought forth findings and methodologies that have proven fruitful and through which there is a lifeline for future scholarly endeavour.

In 1965 Sylvia Thrupp published a paper in which she introduced the notion of the replacement rate as a means of gaining some quantitative measure of population growth or growth potential since it was based on the number of sons who could be documented to be alive at the point in time when a father died.[3] Such a measure could be derived by counting the sons who were recipients of bequests from fathers at the time of the father's death and, particularly in locations practising partible inheritance, when sons were listed as co-heirs to a holding in relevant entries in the records of manorial courts. In some cases researchers have attempted to identify the survival of sons through tracking their appearances in manorial court proceedings before and after the paternal death. Thrupp's paper generated a statistic that was subsequently quite widely used in the quest for measures of demographic growth and decline. Scholars have been generally willing to see demographic growth in places when the replacement rate exceeded unity (one) and decline when it fell below.

Shortly after Thrupp's much cited paper on replacement rates had appeared Hollingsworth alighted on data collected from the *inquistiones post mortem* (IPMs) relating to tenants-in-chief of the Crown that were originally assembled and tabulated by Josiah Russell almost twenty years previously.[4] Some deft calculations enabled Hollingsworth to estimate replacement rates on a quinquennial basis and impute growth rates in this population from the middle of the thirteenth to the early sixteenth century. They show pre-Black Death growth rates among this status group to have been positive for most of the century prior to 1348 but thereafter in decline in most quinquennia through to the middle of the fifteenth century.[5] In the late fifteenth century, according to Hollingsworth's calculations and with some short-lived exceptions, the tenants-in-chief were replacing themselves at implied annual growth rates of 1 per cent and over, a feature apparently consistent with the replacement rates that Thrupp had derived from will-makers in the archdeaconries of Essex and St Albans.[6] Thrupp's student Gottfried continued this emerging enthusiasm for the replacement rate, having by the late 1970s analysed marginally more than 20,000 wills made by testators in Norfolk, Suffolk, Hertfordshire and London between 1430 and 1480.[7] He argued that raw totals of probated wills peaked during periods of epidemic disease reported in narrative sources and was convinced that the frequency of

3 S.L. Thrupp, 'The problem of replacement-rates in late medieval English population', *Economic History Review*, 18 (1965), pp. 101–19.
4 T.H. Hollingsworth, *Historical Demography* (London, 1969), pp. 375–88.
5 Hollingsworth, *Historical Demography*, pp. 378–9.
6 Thrupp, 'Problem of replacement-rates', p. 114.
7 R.S. Gottfried, *Epidemic Disease in Fifteenth Century England: the Medical Response and the Demographic Consequences* (Leicester, 1978).

epidemic outbreaks measured in this way declined after 1480.[8] These data, particularly those generated by Hollingsworth showing strong demographic growth in the late fifteenth century among the landed elite, continue to secure a high profile in the literature and have been reproduced very recently in what is claimed to be a definitive new account of Britain's economic evolution after 1270 as representative of national population trends in the fifteenth century.[9]

More localised demographic investigations using a variety of sources have not reached such optimistic conclusions about demographic buoyancy in the late fifteenth century. Glennie, in his very important but unfortunately unpublished doctoral dissertation, covering wills in London and Hertfordshire which were analysed over a time frame extending well into the sixteenth century, did not share Gottfried's optimism regarding a supposed decline in epidemic frequency and improved life chances between 1480 and 1520.[10] However, one study of fifteenth century wills made by residents of Yorkshire and Nottingham pointed to a shift in the seasonality of probated wills at the end of the fifteenth century from a late summer/early autumn peak to one that fell in late winter and spring and which was in that respect similar to the seasonality of all deaths reported in the earliest parish registers after 1538.[11] P.J.P. Goldberg, the author of this study, does note renewed short-term instability in will numbers in the early sixteenth century and is far from confident of demographic buoyancy at that date. Of course, these will-based studies are unable to employ a base population against which the testators can be set to compute a conventional mortality rate. Studies of monks resident in the Benedictine houses of Canterbury, Westminster and Durham from the late fourteenth through (in certain cases) to the monastic dissolutions provide the very best data and set one of the highest standards of analysis to be found in any medieval demographic investigations to date. The communities of monks in these institutions are, however, far from representative of the population at large since they were made up of unmarried males over the age of 18 or 20 years, living in distinctive residential conditions although as a group distinguished by age and sex they were perhaps no less representative than other 'populations' that we have discussed so far in this paper. The patterns across these three monastic communities are remarkably synchronised in suggesting that frequency and intensity of mortality crises rose after 1450. If they in any way mirror wider trends in crude death rates and the short-term instability of mortality, they provide little support for scholars who see an amelioration in the mortality climate as the fifteenth century progressed. In fact, the monastic communities

8 R.S. Gottfried, 'Population, plague and the sweating sickness: demographic movements in the later fifteenth century', *Journal of British Studies*, 17 (1977), pp. 12–37.

9 S. Broadberry, B.M.S. Campbell, A. Klein, M. Overton and B. van Leeuwen, *British Economic Growth 1270-1870* (Cambridge, 2015), p. 18.

10 P.D. Glennie, 'A commercializing agrarian region: late medieval and early modern Hertfordshire (unpublished Ph.D. thesis, University of Cambridge, 1983).

11 P.J.P. Goldberg, 'Mortality and economic change in the diocese of York, 1390-1514', *Northern History*, 24 (1988), pp. 38–55; E.A. Wrigley and R. S. Schofield, *The Population History of England 1541–1971: a Reconstruction* (Cambridge, 1989), pp. 291–5.

have left a body of evidence which enables a clear specification of their members who were 'at risk', being made up of persons 18 or 20 years of age and over. They thus allow the expectation of life at specific adult ages to be determined. As communities they were located in somewhat varied environmental settings and it is perhaps no surprise that of the three Benedictine monasteries, Durham with far more monks resident in rural cells had the highest expectation of life at age 25 years (e_{25}). While life chances varied across the three locations, all three show a sharp deterioration in life chances in the later fifteenth century with no evident improvement until perhaps the second decade of the sixteenth century.[12] Two other studies using a variant of nominative linkage have also succeeded in computing age-specific life expectancies for the fifteenth century. They concern adult manorial tenants in Essex and the scholars at Winchester College who then moved to New College Oxford.[13] They both reveal a deterioration in life chances in the late fifteenth century, although not as severe as that experienced by the Benedictines.

Since life expectancy fell and mortality instabilities appear to be synchronised in the monastic populations, caution has to be exercised when viewing population trends based on replacement rates among the high status landowners. Students drawn to the replacement rate as a relatively easily won demographic tool have not always been alert to the potential ambiguity in its meaning. Only if the expectation of life at the mean age of paternity is equal to the mean age of paternity can a replacement rate of one be equated with stationarity. If the expectation of life at the mean age of paternity is greater, then growth can be achieved with a replacement rate of less than one. If less, then replacement rates greater than unity will be required to achieve stationarity. Such evidential demands do mean that knowledge of actual ages, life expectancy and paternity histories is needed to provide confidence in the use of the replacement rate, particularly when small numbers of deaths are involved in the computation and small changes in the rate are used to support cases for growth or decline. In fact, to secure growth rates in excess of 1 per cent per annum with life expectancies of the levels found in the populations discussed above would require there to have been a sharp rise in fertility, presumably enabled by a noteworthy drop in female marriage age and a rise in the proportions marrying in the later fifteenth century. Regrettably, as we will see, there is little evidence in any local studies that can be regarded as bearing meaningfully on this issue.

12 A detailed review of work on monastic communities, principally by John Hatcher and Barbara Harvey, can be found in R.M. Smith, 'Measuring adult mortality in an age of plague: England 1349–1540', in M. Bailey and S. Rigby (eds), *Town and Countryside in the Age of the Black Death: Essays in Honour of John Hatcher* (Turnhout, 2012), pp. 43–86.

13 L.R. Poos, *A Rural Society after the Black Death: Essex, 1350–1525* (Cambridge, 1991), pp. 115–20: L.R. Poos, 'Life expectancy and "age of first appearance" in medieval Manorial Court Rolls', *Local Population Studies*, 36 (1986), pp. 45–52; R. Oakes, 'Mortality and life expectancy: Winchester College and New College Oxford *c.* 1393 – *c.* 1540 (unpublished Ph.D. thesis, University of Winchester, 2009); R. Oakes, 'Adolescent mortality at Winchester College: new evidence for medieval mortality and methodological considerations for historical demography', *Local Population Studies*, 88 (2012), pp. 12–32; R. Oakes, 'Mobility and mortality: how place of origin affected the life chances of late medieval scholars at Winchester College and New College Oxford', in C. Briggs, P.M. Kitson and S.J. Thomson (eds.), *Population, Welfare and Economic Change in Britain 1290–1834* (Woodbridge, 2014), pp. 79–102.

It is clear that demographic conditions in the latter stages of what is conventionally viewed as the end of the medieval period, specifically during the century before the arrival of the parish register, remain a subject in need of far more concerted investigation than undertaken hitherto. Wills could be assembled systematically to derive a wider geographic coverage for the calculation of replacement rates that could be tracked particularly across the period from around 1470 to 1540 when the course of demographic change is especially uncertain. The chances of locating another monastic archive equivalent to those that have been so profitably exploited for the Benedictine houses at Canterbury, Westminster and Durham are now probably low but it would be very valuable to establish if there are any such series that could be derived for institutions in northern France and the Low Countries so as to ascertain if similar adult male communities were subject to the trends that were in any sense common to three geographically separated monastic English populations. Indeed, any institution that enabled those entering it to be allocated an age on entry and the monitoring of their subsequent movement in and out of observation might form a valuable source for the investigation of these issues. If similar trends were found to those so far encountered, this would go some way to increasing confidence in our understanding of what was happening in the wider English population. The last two decades have brought to light enough data to suggest that as far as mortality is concerned we are no longer permitted to argue unproblematically that one late medieval mortality regime was transformed into one early modern mortality regime at some point in the later fifteenth century. Furthermore we may also question the focus on plague as the only cause of death that was of significance when considering the causes of trends. There are probably reasonable prospects of locating more English manorial data sets in this period that would permit the tracking of those who entered landholdings at reliably documented ages until their death, although this raises another issue central to the debates surrounding the use of medieval manorial evidence for demographic purposes which we must now consider.

The use of manorial sources was at the heart of some incisive observations to be found in another paper from the mid-1960s, by Goran Ohlin.[14] In this paper he subjected to statistical scrutiny certain of Russell's estimates of age specific mortality and death rates in the Black Death using evidence from the tenants-in-chief of the Crown. However the article's high citation frequency rests largely on Ohlin's reflections on what had been a pioneering paper by Postan and his then pupil Titow, correlating grain prices and tenants' deaths on manors of the Bishop of Winchester *c.* 1245–1350 that were located largely in central-southern England.[15] Ohlin certainly revealed the great need for care when using incomplete or partial medieval sources for demographic purposes and when applying to them technical demographic methods and models that were not fully understood by their

14 G. Ohlin, 'No safety in numbers: some pitfalls of historical statistics', in R. Floud (ed.), *Essays in Quantitative Economic History* (Oxford, 1974), pp. 59–78 (originally published in H. Rosovsky (ed.), *Industrialisation in Two Systems: Essays in Honor of Alexander Gerschenkron* (New York, 1966), pp. 68–90).

15 M.M. Postan and J.,Z, Titow, 'Heriots and prices on Winchester manors' *Economic History Review*, 11 (1959), pp. 392–411 (reprinted in M.M. Postan, *Essays on Medieval Agriculture and General Problems of the Medieval Economy* (Cambridge, 1973), pp. 150–85).

users. One important point made by Ohlin was that measures of life expectancy made by Postan and Titow seemed seriously to overestimate the severity of mortality in the thirteenth and fourteenth centuries. This over-estimation of mortality arose in part from a failure to take account of the changing composition of the tenant population liable to pay heriot, from an inability to define the age distribution of the tenant population and from what Ohlin regarded as an erroneous assumption that entry into tenancies occurred at age 20 years and that by computing the number of years lived subsequently, the expectation of life at age 20 would be calculated.[16]

Ohlin was certainly willing to accept that Postan and Titow had shown that the 'contours of mortality' as they changed with respect to grain prices were broadly correct.[17] In other words the tenants of the Winchester estate in the late thirteenth and early fourteenth centuries were clearly highly harvest-sensitive with respect to year-to-year variations in deaths totals. Indeed Britnell, in a valuable overview of the very considerable historiography associated with this remarkable Winchester data set, concluded that 'this paper has been subject to criticism as an unambiguous index of famine mortality but there can be little doubt that even if their calculation of death rates were over-ambitious Postan and Titow were essentially correct in their interpretation of the evidence'.[18] A very recent use of the Winchester data as they relate to 12,378 inheritances on 77 manors from 1270 to 1349 along with a real wage series shows a substantial impact on mortality after one year following a price rise or real wage fall.[19] A particularly striking finding of this study was an assessment of mortality exhibited over the same period by English tenants-in-chief of the Crown which shows them to have also been vulnerable to food price rises. It is supposed that this similarity was due to a rise in the incidence of infectious disease 'that had been incubated among hungry peasants'.[20] More regionally-specific studies of this kind are definitely needed that could be undertaken by concerted use of inheritances as reported in manorial court proceedings (and sometimes account rolls) to establish the scale of geographical variability in susceptibility to harvest failure.

The historical demographer, as was revealed in the pioneering efforts of Postan and Titow, is inevitably drawn to any evidence that can be thought to generate death rates and life expectancies. A modest number of attempts to calculate such measurements, using the corpus of manorial documents, have been made, although there has been continued dispute regarding the ways in which male ages have been determined for those entering land holdings as well as how the resulting age distribution of the population and specific definitions of the population at risk are determined. The debate surrounding the indubitably pioneering attempt by Zvi Razi to employ the manorial court evidence from

16 Ohlin, 'No safety in numbers', p. 74.
17 Ohlin, 'No safety in numbers', p. 73.
18 R. Britnell, 'Winchester Pipe Rolls and their historians', in R. Britnell (ed.), *The Winchester Pipe Rolls and Medieval English Society*, (Woodbridge, 2003), pp. 1–20. Here at p. 12.
19 M. Kelly and C. Ó Gráda, 'Living standards and mortality since the Middle Ages', *Economic History Review*, 67 (2014), pp. 358–81.
20 Kelly and Ó Gráda, 'Living standards and mortality', p. 369.

Halesowen for these purposes exemplifies these problems and indicates just how fundamental have been and continue to be the problems that Ohlin identified in the development of robust methodologies.[21] One study, however, stands apart in this quest for firmly established measures of death rates and life expectancies among non-elite males, and it was published in this journal almost 20 years ago. Ecclestone undertook a very impressive study of *garciones* who were males aged 12 years and over holding no land recorded in the hallmoot courts on two neighbouring manors of Glastonbury Abbey in south-west Wiltshire.[22] This research produced the most convincing evidence bearing on adult male life expectancy at the manorial level before the Black Death and unfortunately has not been replicated to date for any comparable population. Ecclestone established a means of distinguishing between the *garciones* who were born on the manor from those who were immigrants and for whom it would therefore be difficult to allocate an accurate age.[23] Furthermore he also was able to obtain a median age at which these initially landless males who appeared first on the list close to age 12 years (the age at which males were required to be tithing) came off the lists when they entered into land or moved away and out of observation.[24] Being able to control for those factors makes it possible to determine those *garciones* who constituted the population at risk of experiencing death as the reason for their disappearance from the lists. A resultant estimate of the expectation of life at age 20 years (e_{20}) of 27.4 years is remarkably close to that which Razi, using very different evidence and far more problematic methods, established for what he termed relatively 'well-documented' and economically substantial tenant landholders at Halesowen (Worcestershire) in the half century preceding the Black Death.[25] Of course Ecclestone's estimates do not relate to all adult males in those communities but only to the landless and they omit any influence from the greatly enhanced mortality occurring in 1316–1317 during the Great Famine. Nonetheless this e_{20} falls midway between the range of e_{25}s estimated for the monks of Westminster, Canterbury and Durham in the late fourteenth century and first third of the fifteenth century before the latter experienced significant falls in life expectancy in the remainder of that century.[26] It is certainly worthy of note that a recent attempt to derive new estimates by applying some novel procedures arising from contemporary research into AIDS-related mortality to fourteenth-century IPMs have also generated e_{25}s for this high status group that are remarkably close to those for the landless *garciones* of Wiltshire.[27] It is

21 L.R. Poos, Z, Razi and R. Smith, 'The population history of medieval English villages: a debate on the use of manor court records', in Z, Razi and R. Smith (eds.), *Medieval Society and the Manor Court* (Oxford, 1996), pp. 298–368, especially pp. 310–14, 329–33, and 350–53.

22 M. Ecclestone, 'Mortality and rural landless men before the Black Death: the Glastonbury Head-Tax Lists', *Local Population Studies*, 63 (1999), pp. 6–29.

23 Ecclestone, 'Mortality and rural landless men', pp. 16–18.

24 Ecclestone, 'Mortality and rural landless men', p. 19.

25 Ecclestone, 'Mortality and rural landless men', p. 22; Z. Razi, *Life, Marriage and Death in a Medieval Parish: Economy, Society and Demography in Halesowen 1270–1400* (Cambridge, 1980), pp. 43–5.

26 Smith, 'Measuring adult mortality', p. 79.

27 L.R. Poos, J. Oeppen and R. Smith, 'Re-assessing Josiah Russell's measurements of late medieval mortality using the Inquisitions *Post Mortem*', in M. Hicks (ed.), *The Fifteenth-Century Inquisitions Post Mortem* (Woodbridge, 2012), pp. 155–68.

hoped that further work creating calendars of this particular source will enable the application of this method to the whole of the fifteenth century data provided by the IPMs.

Evidence accumulates to indicate that adult life expectancies did not vary greatly across male social status groups in the fourteenth and fifteenth centuries. Of course, we have no documentary evidence that casts light on the life chances of infants and young children for any social group until the mid sixteenth century. Yet when such data do become available from the parish registers they show that when set against model life tables, the mortality among these youngest age groups is far lower than would be expected if estimated from that found among the adults. Adult male life expectancies, therefore, have to be used very circumspectly in drawing any inferences of what they might mean for mortality among infants and children and hence for estimates of the expectation of life at birth.[28] Unfortunately there remains little prospect of these major lacunae in our medieval evidential base being rectified. Of course, a similar lack of evidence can be seen to apply to females of any age group in this era. Also, the numbers of places and the sizes of groups that have been discussed above are still embarrassingly small and caution has to be exercised in making generalisations. The search for data that enable us to chart populations at risk and hence specify the demographic stocks and flows remains a high priority for future research on medieval mortality, although there have been significant advances in the identification of sources and in the methods applied to their analysis in this field since 1968.

A third paper of enormous significance for both medieval and post-medieval demography that appeared in the mid-1960s was by John Hajnal.[29] In this he set out the salient features of what he initially termed a European marriage pattern, subsequently refined to be viewed as a north-west European household formation system, distinguished in one key respect by relatively late marriage and a low incidence of marriage for women. The core of Hajnal's paper focused on the period after 1600 but in one relatively brief section he made use of some evidence published originally by J.C. Russell in which Russell gave proportions of English female poll tax-payers over the age of 14 years listed as married in a small number of places in England in 1377. He concluded that the percentages were high (70 per cent or more), suggesting to him that England looked more like areas of south-eastern Europe around 1900 or much of the Asian and sub-Saharan African world at the time that he was writing, in which almost all women married and most had done so before they reached the age of 20 years. This suggested a very marked contrast between medieval and early modern patterns of nuptiality in England, although Hajnal hinted that there might have been a detectable initial shift towards a European marriage pattern in towns, where it appeared that female marital incidence was lower in 1377.

A key feature of this marriage system, as Hajnal realised, was the role it played in enabling the 'preventive check' so central to one of Malthus's key determinants of demographic control, to operate. In the absence of marriage registers some students of

28 Smith, 'Measuring adult mortality', pp. 71–2.

29 J. Hajnal, 'European marriage patterns in perspective', in D.V. Glass and D.E.C. Eversley (eds), *Population in History: Essays in Historical Demography* (London, 1965), pp. 101–43.

local population conditions between *c.* 1250 and 1400 have used the *merchet* fines, paid to manorial lords when daughters of customary tenants married, to measure the marital propensities of females. Razi, in a pioneering use of these fines, considered their variability over time in the manor of Halesowen.[30] He noted that *merchets* rose in frequency during phases associated with enhanced mortality, reflecting the fact that many may have been remarrying or entering marriages enabled by inheritances of land, although he also noted that this positive relationship between marriage and mortality was not evident during and immediately after the Great Famine since he viewed the severely disrupted economic conditions working to thwart marriage altogether. However, the rising number of marriages in the late 1330s and 1340s he interprets to be consistent with buoyant demographic trends in the two decades preceding the Black Death. He identifies, as have other scholars, a marriage surge after the Black Death because of remarriages and the huge increase in land availability enabling household formation. In the later fourteenth century recorded *merchet* totals fell, in part Razi argues because of population decline in general and in particular because of a declining presence of young adults in the population. Razi does acknowledge that *merchet* fines were increased sharply in value after 1349 and that the general number of fines declined substantially more severely than did the population, suggesting a growing reluctance on the part of customary tenants to pay the fines as they increasingly resisted landlords' demands. It has been argued that the actual frequency of marriage fines, when landlord authority may have been relatively greater before 1349, offers the basis of calculating a marriage rate. However, there is ample evidence to show that the marriage fine was far more likely to have been paid by the wealthier sections of the customary tenant population. In fact, *merchet* was more akin to a stamp duty used as a means of controlling inheritance and hence a tax on peasant wealth.[31] Cottagers and smallholders were unlikely to appear in the records of *merchet* payers and as a consequence their marital behaviour is very difficult to chart.

Care has always to be exercised in assuming that *merchet* payments can be regarded as similar to entries in an early modern marriage register. To date, the most incisive study of *merchet* payments is that undertaken very recently by Kelly and Ó Gráda who have used the variable amount of the marriage fine to very good effect.[32] They studied the annual series of *merchet* payments on 65 manors located on the estates of the Bishopric of Winchester. They also use data on inheritances and the land market suggesting there were considerably fewer marriages than there were inheritances, reflecting perhaps the fact that those entering smaller properties were less likely to have been charged *merchet*. They do find a strong inverse relationship between years of high wheat prices and the numbers of *merchet* payments. However, in years when prices were particularly high those making larger *merchet*

30 Razi, *Life, Marriage and Death,* pp. 45–50 and 131–5.

31 R. Smith, 'Further models of medieval marriage: landlords, serfs and priests in rural England, *c.* 1290–1370', in C. Duhamel, A. Lobrichon and G. Lobrichon (eds), *Georges Duby. L'Ecriture de l'Histoire* (Brussels, 1996), pp. 161–73; Poos, Razi and Smith, 'Population history of English villages', pp. 316–9.

32 M. Kelly and C. Ó Gráda, 'The preventive check in medieval and preindustrial England', *Journal of Economic History*, 72 (2012), pp. 1015–35.

payments appear to have increased in relative frequency. Kelly and Ó Gráda see these data as highly suggestive of the presence of a strong Malthusian preventive check and hence one in which the propensity to marry was strikingly related to economic conditions. They do note that high price years did enable the wealthier tenants to marry in larger numbers reflecting the fact that in those difficult years the wealthier peasants were acquiring land at the expense of the poorer and thereby enabled their daughters to marry more easily.[33] Razi found a similar interrelationship in Halesowen.[34] There is considerable scope for using the medieval manorial court record for a far more extensive study of the responsiveness of *merchet* payers to changing economic conditions from around 1260 to 1350 than has hitherto been achieved, inspired by Kelly and Ó Gráda's efforts. Unfortunately the changing character of landlord-tenant relations as captured in those records means that these issues are unlikely to be studied beyond about 1370 or 1380 with any confidence, leaving a substantial chronological gap before they can be viewed again after 1538. There are also possibilities of pursuing these issues that may not be dependent on the strictly statistical analysis exemplified by Kelly and Ó Gráda. One such recently published example by Bennett constitutes a very impressive study of single and poor women in England, whom she sees demonstrating behaviour in the difficult conditions in the century before 1348 that were fully compatible with the European marriage pattern.[35]

While a preventive check of this order of magnitude is also seen by Kelly and Ó Gráda as compatible with the presence of a variant of the European marriage pattern (as defined by Hajnal), their research casts little direct light on the age of female marriage or the overall proportion of females in the whole population *ever* marrying. Razi made a significant effort to compute female marriage ages in Halesowen which in part rests on the claim that males entered into property at or very close to the age of 20 years. He also used a procedure involving what he termed 'three-generation families'. When B, son of A, first appears in the court record as a 'landholder', Razi claims it can be assumed that B was roughly 20 years old; if C son of B (or D daughter of B) then appears in the record roughly 20 years later, it can be assumed that B married and bore C (or D) at about the age of 20. Between 1270 and 1349 in 59 cases in a sample of three-generation families a link can be made with daughters whose *merchet* payment was recorded an average of 11–18 years after their father's first appearance. Razi saw in these data strong evidence that females were marrying at ages incompatible with Hajnal's European marriage pattern. However, these *merchet* payers link to just 29 per cent of those with recorded *merchet* payments in that period and it is also probable that these *merchets* relate disproportionately to the wealthier villein landholders who may well have been more likely to marry and to have done so at ages younger than the average. Similar procedures were used by Razi to estimate female marriage ages after 1349

33 Kelly and Ó Gráda, 'Preventive check', pp. 1023–4.

34 Razi, *Life, Marriage and Death*, p. 47

35 J.M. Bennett, 'Women and poverty: girls on their own in England before 1348', in M. Kowaleski, J. Langdon and P.R. Schofield (eds), *Peasants and Lords in the Medieval English Economy. Essays in Honour of B.M.S. Campbell*, (Turnhout, 2015), pp. 299–324.

when he has discovered that 15 (13 per cent) of the daughters noted in the court roll married between ages 12 and 19 years.[36]

There remain doubts about whether ages have been accurately attributed and whether these observable minorities are representative of the full distribution of marriage ages among the Halesowen tenant population.[37] H.E. Hallam attempted to make calculations for female marriage ages for which there were potentially large margins of error relating to (at most) 128 marriages from five south Lincolnshire manors between 1252 and 1349, and 54 marriages from the same locations after the Black Death. He argues that female ages for first marriage fell between 21 and 26 years before 1349 and between 24.6 and 30.3 years after that date.[38] At present it would seem that there is very limited solid evidence providing certainty on female marriage age in either before or after the Black Death.

Court rolls do not enable estimations of the proportions married and the most plausible estimates that have been produced to date derive from the later fourteenth century poll taxes. Modest sized samples from poll tax records for 1377 that give names and marital status of those over 14 years of ages yield, contrary to Russell's findings, approximately 60 per cent of females currently married which are proportions close to those found in listings of inhabitants from the seventeenth century.[39] There is also ample evidence to suggest that unmarried females may have been more likely to have escaped the tax collectors' net than their married neighbours. Poos made considerable efforts to use Essex poll tax returns for 1381 relating to persons aged 15 years and over and which are especially afflicted by the under-enumeration of females to reach similar conclusions pointing towards a pattern of female marital incidence that appears closer to a European than a non-European pattern.[40] There is much scope for an extension of the approach employed by Poos to other communities in other English counties in 1381, particularly now there is a conveniently available full edition of the 1381 Poll Tax.[41] Similar proportions of females married to those estimated by Poos have been calculated from serf lists of the Prior of Spalding from the1260s, although these listings are the subject of markedly differing interpretations, making this particular body of evidence especially hard to assess.[42] Proportions of females married in certain urban locations in 1377 point to significantly larger proportions of single women than found in rural locations but these patterns may be the result of significant immigration of single women into such settlements with potentially large effects on age structure.[43]

36 Razi, *Life, Marriage and Death*, pp. 50–64.
37 Poos, Razi and Smith, 'Population history of English villages', pp. 316–8.
38 H.E. Hallam, 'Age at first marriage and age at death in the Lincolnshire Fenland 1252–1478', *Population Studie*s, 39 (1985), pp. 55–69.
39 R. Smith, 'Hypothèses sur la nuptialité en Angleterre aux XIIIe–XIVe siècles', *Annales, Économies, Sociétés, Civilisations*, 38 (1983), pp. 113–19.
40 Poos, *Rural Society after the Black Death*, pp. 133–58.
41 C. Fenwick, *The Poll Taxes of 1377, 1379 and 1381*, 3 vols (Oxford, 1998, 2001, 2005).
42 Smith, 'Hypothèses sur la nuptialité', pp. 127–8; E.D. Jones, 'Death by document: a reappraisal of Spalding Priory's census evidence of the 1260s', *Nottingham Medieval Studies*, 39 (1995), pp. 54–69.
43 P.J.P. Goldberg, 'Urban identity and the poll taxes of 1377, 1379 and 1381', *Economic History Review*, 43 (1990), pp. 194–216.

While evidence has emerged from these studies that suggests a female marital regime that displays more than partial European traits from at least the late thirteenth century, the overall data set is still remarkably thin and should certainly caution those historians who have recently developed or found persuasive an argument about the emergence of late and low intensity marriage among the female populations of north-western Europe, including England, in labour deficient conditions after the Black Death. They are keen to see the late medieval period as one in which late and low intensity female marriage regime emerged to promote favourable economic change.[44] There is surely enough evidence to sow doubt in the chronological ordering of this argument in the English case since it could be argued that the European marriage pattern was characteristic of marital behaviour that can be charted in both the period of sharply worsening economic conditions before 1349 and that which saw significant rises in well-being after the Black Death. It behoves those who have engaged in this debate to work harder in the sources to improve the robustness of the data relating to the historical demography of medieval marriage before constructing grandiose edifices on thinly built and shaky foundations.

Observers of the varying modes of demographic calculation discussed above, in which a range of assumptions are often made, will quickly realise that the results of research to date are surrounded by considerable uncertainties. Much more is now known with some confidence about male adult mortality than female nuptiality and hence fertility from these cases studies, leading to considerable asymmetry in our current basic demographic knowledge. There are many topics to do with such matters as climatically-driven demographic change, gender-differentiated demography, the Black Death and subsequent plague mortalities, population turnover and mobility and the long-running debate over changing national population totals that given the space available in this discussion have not been considered at all. Likewise, the considerable archaeological data sources that have been used by some to cast light on medieval demographic behaviour have been omitted from this discussion entirely, although it should be noted that interpretations based on such evidence remain the subject of very considerable dispute. Focus in this current discussion has been placed on areas of research where there have been very real developments using approaches that have the capacity to be employed more widely in the future and can be pursued using reasonably robust methodologies. Progress will always be rather slow, given the frequently intractable nature of the available medieval sources and the palaeographical and linguistic expertise, as well as the technical demographic skills needed to exploit the primary evidence.

44 An influential paper which has spawned a substantial literature, little of which has presented any new robust estimates of English marriage ages and incidence, both before and after the Black Death, is T. De Moor and J. L. van Zanden, 'Girl power: the European marriage pattern and labour markets in the North Sea region in the late medieval and early modern period', *Economic History Review*, 63 (2010), pp. 1–33.