THE UNIVERSITY of York

Discussion Papers in Economics

No. 2003/02

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Abstract
This paper surveys the literature on the mobility of eighteenth and early nineteenth century English rack rent tenant farmers and farming families, and provides new quantitative estimates of the speed of turnover in the market for farm tenure. The evidence presented should increase the degree of belief in the stylised fact of relatively low tenurial mobility, although the extent of inertia should not be exaggerated.

[*] I am very grateful to Avner Offer, Jane Humphries and Jacqueline O'Reilly for their valuable comments on earlier drafts, and to audiences in Brighton, Bristol, Dublin, Manchester and Oxford for their insights. This paper builds on research conducted for my DPhil thesis, which was kindly funded by the Economic and Social Research Council (R00429834700). I would also like to thank the staff of the archives I visited for their time and patience. For permission to use their records, I am grateful to the Warden and Fellows of All Souls College, Oxford, and the Dean and Fellows of Christ Church College, Oxford. The usual disclaimer applies.

Agricultural historians have long suspected that eighteenth and nineteenth century English tenant farmers were not particularly mobile. The widely held belief is that despite short, often annual leases, the turnover of rack rent tenants was 'low'.[1] This stylised fact, though, is based on surprisingly little consolidated evidence. The literature covering 1850-1914 has recently been reviewed, but for the period 1700-1850 '[t]here is no general survey'.[2] To help address this unsatisfactory situation, this paper surveys some of the literature on the mobility of rack rent tenant farmers on privately owned estates during the eighteenth and early nineteenth centuries, and extends these existing studies by providing new data from archival sources. The evidence indicates that the consensus view of relatively slow turnover is not in need of significant revision. The average farmer may not have remained on a holding for life. Nevertheless, the duration of tenants' occupations was not as short as the terms of their leases implied and there was a good deal of family continuity on the same property, although this was unlikely to last for more than a generation or two.[3]

I

Contemporary comment provides numerous examples of individual farmers, or the same farming family, occupying a property for time periods ranging from twelve successive years to 'centuries', as well as instances of landlords said to grant short

[1] A. Offer, 'Farm tenure and land values in England, *c*. 1750-1950', *Economic History Rev.* 44 (1991), p. 10. Compare R. C. Allen, *Enclosure and the yeoman: the agricultural development of the south midlands 1450-1850* (1992), pp. 181, 209; J. V. Beckett, 'Landownership and estate management', in G. E. Mingay (ed.), *The agrarian history of England and Wales* [hereafter *Agrarian History*] VI (1989), p. 616; C. Clay, 'Landlords and estate management in England', in J. Thirsk (ed.), *Agrarian History* V (ii) (1985), pp. 210, 213; L. Davidoff and C. Hall, *Family fortunes: men and women of the English middle class 1780-1850* (1987), pp. 254-5; G. E. Mingay, *English landed society in the eighteenth century* (1963), pp. 170-1; M. E. Turner, J. V. Beckett and B. Afton, *Farm production in England 1700-1914* (2001), pp. 32, 41.

[2] Offer, 'Farm tenure', p. 10. The 1850-1914 survey is G. E. Mingay, 'The farmer', in E. J. T. Collins (ed.), *Agrarian History* VII (2000), pp. 767-71.

[3] For the experience of copyholders and owner-occupiers, see e.g. Clay in *Agrarian History* V (ii), p. 201; H. R. French, 'Social status, localism and the "middle sort of people" in England 1620-1750',

leases but rarely change their tenants.[4] Comments on the rapid turnover of farmers were far more infrequent.[5] Despite the general impression of tenurial stability given by qualitative sources, this evidence alone cannot be conclusive because of the possibility of selection bias. Contemporaries might have been especially likely to note examples of especially long periods of occupation, perhaps because they thought them unusual. Quantitative estimates of the length of tenurial terms are therefore required. The next section reviews the existing literature; new evidence follows.

II

Quantitative studies of the speed of turnover track tenants' names over time from some source, usually estate rentals. If the incoming tenant possessed the same surname as the outgoer, he is usually assumed to have been a member of the same family. This method of tracing family inheritances of farms misses successions down the female line, but on the other hand an incomer could have come from an unrelated family that coincidentally shared the outgoer's surname. The hope is that these biases

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Past and Present 166 (2000), table 10; J. M. Neeson, *Commoners: common right, enclosure and social change in England, 1700-1820* (1996), pp. 204-7, 218-58.

[4] Quote from J. Caird, *English agriculture in 1850-51* (1852; reprint, 1968), p. 347. See also ibid., pp. 2, 333-4; Bodleian Library, Oxford [hereafter BOD], MS.d.d.Harcourt C/266, estate survey, 1871, fos 71, 76; Buckinghamshire RO, D/DR/8/16/1, Rev. T. Townson to W. Drake, 2 May 1753; Hertfordshire Archives and Local Studies, B/170, declaration by T. Harknett, 1851; T. Batchelor, *General view of the agriculture of the county of Bedford* (London, 1808), p. 43; R. W. Dickson and W. Stevenson, *General view of the agriculture of Lancashire* (London, 1815), pp. 127, 139-40; R. Lowe, *General view of the agriculture of the county of Nottingham* (London, 1798), p. 16; W. Mavor, *General view of the agriculture of Berkshire* (London, 1808), p. 90; W. Pitt, *A general view of the agriculture of the county of Leicester* (London, 1809), pp. 31, 82-3; H. E. Strickland, *A general view of the agriculture of the east riding of Yorkshire* (York, 1812), pp. 72-3; T. W. Beastall, *A north country estate: the Lumleys and Saundersons as landowners, 1600-1900* (1974), pp. 103, 133; Clay in *Agrarian History* V (ii), p. 213; D. R. Hainsworth and C. Walker (eds), 'The correspondence of Lord Fitzwilliam of Milton and Francis Guybon, his steward, 1697-1709', *Northamptonshire Record Soc.*, 36 (1990), pp. 131, 276; S. Matthews, 'The cattle plague in Cheshire, 1865-1866', *Northern History* 38 (2001), p. 117; J. Wake and D. C. Webster (eds), 'The letters of Daniel Eaton to the third Earl of Cardigan 1725-1732', *Northamptonshire Record Soc.*, 24 (1971), p. 99.

[5] Christ Church College, Oxford, MS Estates 72, fos 286-7, letter from J. Stratton, 6 Jan. 1852; Caird, *English agriculture*, pp. 131-2; J. Middleton, *View of the agriculture of Middlesex* (London, 1798), p. 51; J. E. Crowther and P. A. Crowther (eds), *The diary of Robert Sharp of South Cave: life in a Yorkshire village 1812-1837* (1997), pp. 107, 206; Wake and Webster, 'Eaton letters', pp. 93, 101, 103, 126.

cancel each other out. Another issue is that the speed of tenants' turnover ought to be judged 'fast' or 'slow' relative to some benchmark. Scholars have tended not to explicitly state what their yardstick is, perhaps because of the danger of arbitrariness in specifying a threshold number of years' survival (or a threshold proportion of farmers remaining after some time period). Where possible, this paper focuses on comparing actual lengths of occupancy with the formal terms of leases. Frequent renewal of short-term contracts, particularly to different members of the same family, is probably indicative of sluggishness in the market for farm tenure. It is also desirable to test that high survival rates were not confined to small farms, or to economically or physically marginal land. Estimates of duration are, again where the evidence allows, therefore related to the size and quality of holdings. A problem here, however, is in assigning a causal direction to any correlation found. For example, a finding of rapid turnover on poor soil could have been because farmers were eager to leave that type of land, or because frequent changes of lessees led to deteriorating soil quality.

A final caveat is that almost all mobility figures include tenants who left by retiring or dying. Davidoff and Hall have suggested that some farmers withdrew from active work in late middle age, thereby encouraging turnover.[6] Removing demographically-driven turnover from the statistics would produce a lower degree of churning in the market for farm tenure than that suggested by the raw data. Unfortunately, adjusting for death and retirement is difficult because it is rarely straightforward to discover why a farmer's name disappeared from the estate rent book. Thus the following results provide an upwardly biased estimate of underlying mobility because they include turnover driven by demographics as well as the market.

[6] Davidoff and Hall, *Family fortunes*, p. 255.

If Beastall's study of the Earl of Scarbrough's Yorkshire estate during the later period of 1862-1905 is any guide, the magnitude of the bias is not insignificant: at least 27 per cent of individual tenancy changes were due to death or retirement.[7] Another factor possibly producing exaggerated estimates of mobility is that the survival of usable rentals is probably biased towards estate managers who kept good records, and who might have been more commercially minded than the norm, and therefore less willing to allow continued occupancy where this was not economically justified.[8]

From the rent rolls of Lord Pembroke's Wilton estate, Thompson estimated that in 1865, 55 per cent of the tenantry had occupied their holdings for at least the previous ten years, probably under tenancy-at-will (annual contracts). On land owned by the Duke of Northumberland in 1880, only 40 of his 673 farms had been in the same family for three generations, although half of the current tenants had succeeded to their father's holding. Farrant found lower rates of turnover on three estates in the lower Ouse valley, Sussex. On the four farms at Stanmer owned by the Earls of Chichester (mean size approximately 900 acres), the duration of occupancy for the three families present in the early 1880s ranged from sixty years to nearly a century under leases of seven to twenty-one years. In Kingston, the Hodsons held a 1,344-acre farm continuously from 1840-1872, while two branches of the Saxby family occupied the Marquis of Abergavenny's Southdown estate (1,992 acres) for a similar period.[9]

Not all farming families in Sussex enjoyed such high survival rates. Saville's research on property in the Sussex Weald owned by the Fuller family provides turnover data on 23 farms during the 1720s and 1730s; only one rented for more than

[7] Beastall, *North country estate*, p. 170.
[8] Compare M. E. Turner, J. V. Beckett and B. Afton, *Agricultural rent in England, 1690-1914* (1997), pp. 77-9.
[9] F. M. L. Thompson, 'Agriculture since 1870', *Victoria county history of Wiltshire* IV (1959), p. 94, table 2; idem, *English landed society in the nineteenth century* (1963), pp. 202-3; S. Farrant, 'The

£50 per annum and where possible the estate managers utilised tenancy-at-will. The mean duration of occupancy for an individual tenant was eight years (median seven years), and in no instance was the outgoer replaced by a member of the same family. There was a positive association between length of occupancy and the farm's rent, but the correlation coefficient was not statistically significant even at the ten per cent level (p-value=0.106). Farmers able to diversify by supplying horses and carts to the local ironworks experienced the longest survival rates.[10]

Short found similarly 'relatively rapid' mobility in the same region about a century later. Fifteen per cent of those listed in the 1841 census as farmers or graziers living in the Sussex High Weald were still in the same parish twenty years later (although not necessarily on the same farm), with a survival rate of only 8 per cent in the Worth area. Turnover was especially fast on 62 farms (average size 137 acres) owned by the fourth Earl of Ashburnham. During 1830-50, each property was occupied by an average of 3 tenants who came from 2.4 tenant families. Short attributed the speed of transference to the nature of the farmers, their tenancy agreements and the land. The fields were small, hilly and poorly drained, and the roads poor. Contemporaries criticised the Ashburnham tenantry for lacking capital and ability: a demographic breakdown indicates that they were either young, and less well equipped, or old and possibly conservative; moreover, most held at will. An average length of individual occupation of nearly seven years, then, is possibly not

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management of four estates in the lower Ouse Valley (Sussex) and agricultural change, 1840-1920', *Southern History* 1 (1979), pp. 161-4.

[10] Calculations from R. V. Saville, 'Gentry wealth on the Weald in the eighteenth century: the Fullers of Brightling Park', *Sussex Archaeological Collections* 121 (1983), pp. 134-6. No rent data available for two farms.

unrespectable given these obstacles, although the relative absence of family continuation is again striking.[11]

The Ashburnham tenants' turnover was generally lower in the 1840s than in the 1830s, and Short estimated a positive but statistically insignificant correlation between farm size and the number of individuals occupying the holding. For a smaller sub-sample of 27 farms containing land described as 'poor' in an 1835 survey, it is possible to assess the importance of the relationship between mobility and soil quality by correlating turnover with the percentage of that farm's acreage recorded as 'poor'. The results suggest that there was no strong correlation between mobility and land quality. There was some tendency for the turnover of individuals to be lower on poorer quality farms: the correlation coefficient was negative and statistically significant at the 10 per cent level although not quite at the more demanding 5 per cent (p=0.055). The correlation between land quality and family turnover was also negative but not statistically significant (p=0.17).[12]

Table 1 presents the results of Wade Martin's study of family occupancy on the Coke estate at Holkham, Norfolk.

Table 1. Survival of farming families at Holkham, Norfolk, 1790-1850

Period	Number of farms held by same family throughout	Survival rate (%)[a]
1790-1810	25	38
1810-30	21	32
1830-50	37	56
1790-1830	9	14
1810-50	14	21
1790-1850	5	8

Source: S. Wade Martins, *A great estate at work: the Holkham estate and its inhabitants in the nineteenth century* (1980), table 4.1.

Note: [a] Calculated assuming a constant 66 farms on the estate, as implied by ibid., appendix 4.

[11] B. M. Short, 'The turnover of tenants on the Ashburnham estate, 1830-1850', *Sussex Archaeological Collections* 113 (1976), pp. 157-74.

[12] Calculated using data from ibid., table 2, appendix.

The first three survival rates indicate that at least a third of properties on the estate were held by the same family for two decades, with greatest stability in the second quarter of the nineteenth century. That the two forty-year survival rates are substantially lower than the twenty-year rates shows that few families remained for an additional twenty years. Less than one in ten farms were cultivated by the same family in 1790 and in 1850. It could be claimed that the Holkham evidence would be likely to produce lengthy terms of occupation, if only because of the estate managers' widespread use of long leases, which were much less common elsewhere. Nevertheless, continuity was also present where contracts were far shorter, such as on the estates of the Earls of Scarbrough, where annual agreements were common. The Codd family occupied a large farm in Glentworth, Lincolnshire, in 1727 and remained there until 1818. Other family members occupied 70 acres in Willoughton, also Lincolnshire, in 1736, but had disappeared by 1760. 'A fairly high degree of continuity of occupation' was present on the Durham estate, where 5 of the 11 occupiers of over 15 acres in 1856 had been in place since 1845.[13]

Land tax returns are another source for calculating turnover rates. Table 2 reports estimates from Neeson's study of Northamptonshire tenants who disappeared from the land tax returns over a ten-year period in 23 open and enclosing parishes. Neeson claimed that the figures for the open parishes showed tenants' 'habitual mobility', although whether an overall individual survival rate of 62 per cent after ten years demonstrates 'customary mobility' is perhaps moot. While not indicative of lifetime occupancy, it does appear to represent a fair degree of continuity. Table 2 suggests that tenants tended to survive longer on larger holdings, but after Ginter's 'comprehensive methodological demolition' of the use of the land tax returns in

[13] Beastall, *North country estate*, pp. 41, 94-5, 100, 104, 128, 178.

calculating acreages, much caution is required in interpreting the figures disaggregated by farm size.[14]

Table 2. Ten-year survival rates of Northamptonshire tenants in open and enclosing parishes, *c*. 1774-1814, by size of holding (%)

	0-5 acres	5-25 acres	25-50 acres	50-100 acres	>100 acres	Overall	Sample size
Open	50	62	90	36	86	62	129
Enclosing	26	53	50	56	73	50	236

Source: Neeson, *Commoners*, table 8.5.
Note: Tenants defined as those renting all their land.

Neeson's research does indicate that parliamentary enclosure was associated with higher attrition rates for tenant farmers. This is in line with the weight of evidence elsewhere, notably Walton's study of Oxfordshire parishes over 1785-1831, which also using land tax data, found that enclosure usually temporarily accelerated the turnover of tenant families, although not to levels that were high compared with the peaks which could occur at other times. Broad's review claimed that midlands enclosures undertaken during 1650-1770 created greater medium-term displacement compared to enclosures in that region in later periods, partly due to the increased amalgamation of farms and the semi-deliberate letting of them to outsiders.[15] Some scholars have concluded that parliamentary enclosure had a more limited impact on tenant farmers, yet their studies assessed the scale of change not by tracking the survival of lessees' names during and after enclosure, but instead by comparing total tenant numbers pre- and post-enclosure, a 'mistake' according to Turner because

[14] L. Shaw-Taylor, 'Parliamentary enclosure and the emergence of an English agricultural proletariat', *J. Economic History* 61 (2001), p. 643. Compare D. E. Ginter, *A measure of wealth: the English land tax in historical analysis* (1992); Neeson, *Commoners*, p. 228, appendices A-B.
[15] J. R. Walton, 'The residential mobility of farmers and its relationship to the parliamentary enclosure movement in Oxfordshire', in A. D. M. Phillips and B. J. Turton (eds), *Environment, man and economic change* (1975), pp. 238-52; J. Broad, 'The fate of the midland yeoman: tenants, copyholders, and freeholders as farmers in north Buckinghamshire, 1620-1800', *Continuity and Change* 14 (1999), pp. 327-31. Walton also found the general rate of family turnover to increase over time.

stability in overall numbers did not necessarily preclude a radically changed personnel.[16]

Table 3 summarises Broad's quantification of turnover on the Verney estate at Middle Clayton, Buckinghamshire; the figures cover farms renting for over £10 a year in the 1680s with a mean size of approximately 73 acres. Broad argued that these figures depicted a 'high' rate of mobility, but as with Neeson's study, there is possibly a case for emphasising continuity rather than change. By this time, almost all the tenants held at will. Thus, in each sub-period, 42-75 per cent of farmers or farming families survived more than half a dozen renewals of their tenancy agreements. Furthermore, Broad points out that some farmers remained in the parish for three or four decades, 'sometimes on the same farm', although only six surnames had a continuous presence for more than a hundred years between 1600-1800.[17]

Table 3. Survival rates at Middle Clayton, Buckinghamshire, 1679-1722

	1679-86	1686-94	1713-22
Farmer remains (% of total)	42	70	65
Farmer remains or widow retains farm (%)	58	70	75
Sample size	26	23	20

Source: Broad, 'Midland yeoman', table 3.

A particularly valuable aspect of Broad's study was his investigation of the reasons why farmers vacated their holdings. He uncovered details for 11 of the 29 outgoers covered by table 3. Five suffered downward mobility and became cottagers or paupers on the estate, while six men died and had their holding taken over by their widow. This role for widows is worth highlighting in two respects. First, that at least a fifth of the turnover events captured in table 3 were caused by death further suggests

[16] M. E. Turner, 'Parliamentary enclosure and landownership change in Buckinghamshire', *EcHR* 28 (1975), p. 569. E.g. J. D. Chambers, 'Enclosure and the small landowner', *EcHR* 1st series 10 (1940), pp. 126-7; J. M. Martin, The small landowner and parliamentary enclosure in Warwickshire', *EcHR* 32 (1979), table 8, p. 343.

that turnover driven by demographics, rather than the market, was non-trivial. Second, it confirms, as historians have suspected, that despite prejudices against female farmers, widows could be important in ensuring family continuity. A widow might hold the farm in her own name for the remainder of her husband's lease, or until a son was old or able enough to take over.[18]

III

Consulting archival material adds additional examples to these published estate case studies. In 1849, an unknown writer listed the number of years each current tenant family had held land on the Harcourt family's estate in Oxfordshire. Figure 1 gives the stated length of these family tenurial terms. Most of the farmers appear to have been rack renters, with tenancy agreements of between one and twenty-one years.[19]

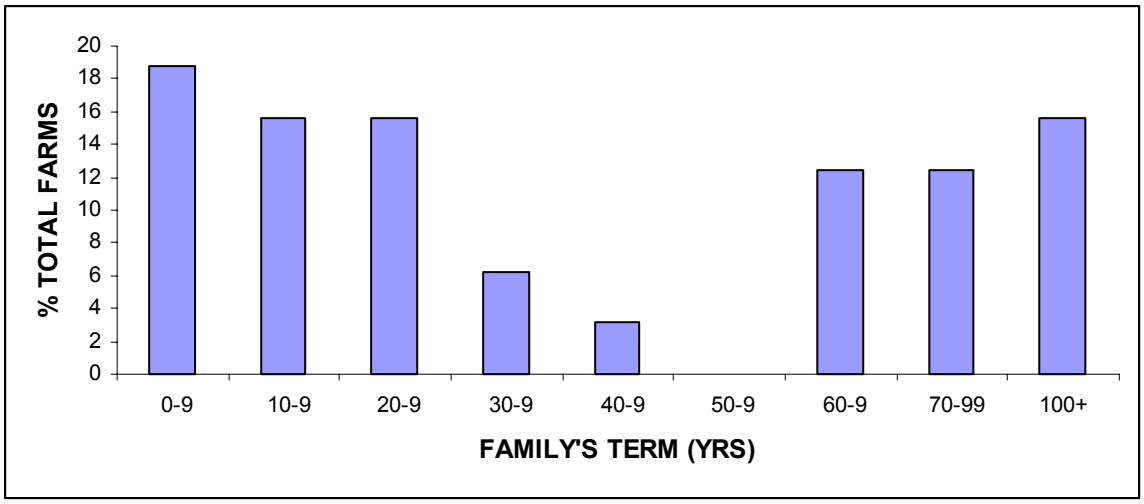

Figure 1. Family tenurial terms on Harcourt land in six Oxfordshire parishes at 1849, by number of farms
Source: BOD MS.d.d.Harcourt C/267, list of tenancy terms, 1849.
Note: The parishes are Cogges, Hinksey, Northmoor, Nuneham Courtenay, Shifford and Stanton Harcourt.

[17] Broad, 'Midland yeoman', pp. 332-4.
[18] Davidoff and Hall, *Family fortunes*, pp. 254, 287-8; I. Pinchbeck, *Women workers and the industrial revolution 1750-1850* (1930; reprint, 1969), chs 1-2.
[19] BOD MS.d.d.Harcourt B/37, estate particulars, 1814; B/39, C/267, 270-7, tenancy agreements, various years.

Mobility on the Harcourt estate was very low. As many as 41 per cent of the farms were said to have been occupied by the same family for at least 60 years. On average, a family survived for approximately 45 years. An intriguing feature of figure 1 is the comparatively small number of farms held for 30-59 years, which indicates that during the Napoleonic Wars, the Harcourts rented out land to tenants with less staying power than in any other time. Perhaps the wartime boom attracted farmers who could not survive the post-war downturn in farming fortunes. Certainly there is some evidence of a 'rush of people like journalists, shopkeepers, even army officers "running helter skelter" to be farmers' during the Wars.[20]

The survival of an 1832 survey makes it possible to calculate the approximate acreage of 17 of the 32 farms depicted in figure 1. Figure 2 presents the results. The largest single category was unmatched (N/M), which includes short occupancy terms and farm acreage changes. This residual notwithstanding, the graph indicates that farms rented out on long family tenures were at least as big as the estate average. For example, families who had occupied Harcourt land for over seventy years held a larger proportion of the total acreage (41 per cent) than their proportion of the total number of farms (28 per cent). There was almost no difference to the distribution depicted by figure 2 if the rent of the land was used instead of the number of acres. It appears that, at least on the Harcourt's Oxfordshire estate, high survival rates were not confined to small or poor quality farms.

[20] Davidoff and Hall, *Family fortunes*, p. 253. Compare G. Hueckel, 'English farming profits during the Napoleonic Wars, 1793-1815', *Explorations in Economic History* 13 (1976), p. 333.

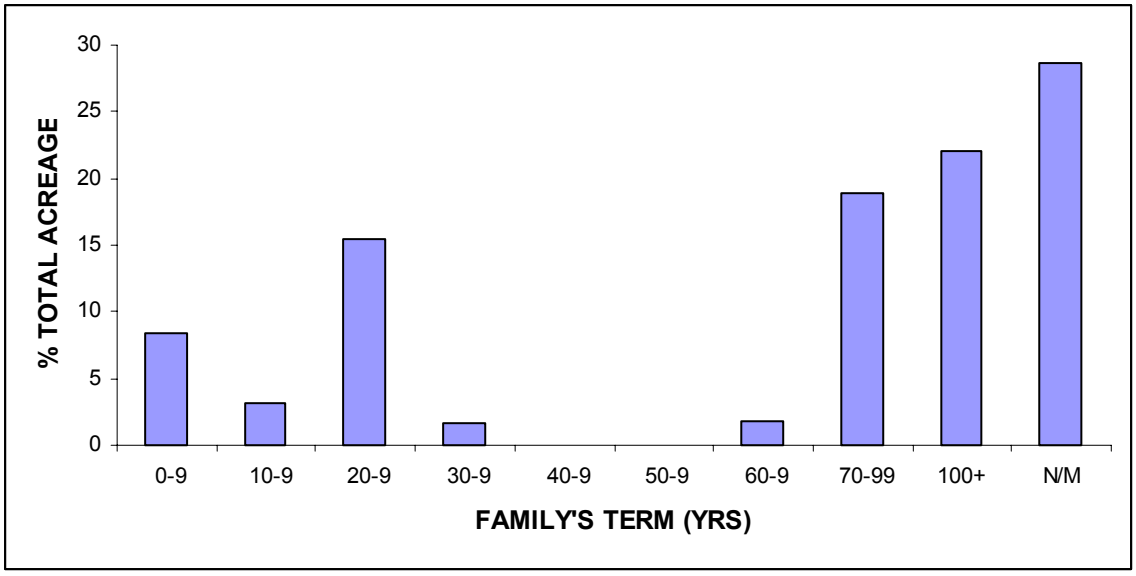

Figure 2. Family tenurial terms on Harcourt land in three Oxfordshire parishes at 1849, by farm acreage
Sources: As figure 1 plus BOD MS.d.d.Harcourt C/265, estate valuation, 1832.
Note: The parishes are Cogges, Northmoor and Shifford.

An alternative method of quantifying the speed of tenants' turnover is to count the number of occasions on which a sample of farmers moved. Unfortunately, the farming careers that are by far the easiest to reconstruct are those of prominent agriculturists whose experience is unlikely to have been representative. Such men must have been relatively mobile to the extent that they possessed a migratory attitude and the aptitude to make any transition work. Thus their attrition rates probably represent an upper bound to the national average. Examination of the careers of twelve elite farmers included in the *Dictionary of national biography on CD-ROM* indicates a mean individual tenurial term of 12 years (median 9 years; 14 observations on duration). The incomer was related to the outgoer in at least 6 of the 17 recorded tenancy changes. These figures for the upwardly mobile, then, appear to confirm the generalisation of relatively limited mobility and not insignificant family continuity suggested by many, but not all, of the estate case studies.[21]

[21] The sample comprised of Robert Bakewell, John Booth, Richard Booth, Thomas Booth, John Ellman, Richard Ellman, John Loudon, John Morton, Clare Read, William Torr, Jethro Tull and Arthur Young.

IV

As a pilot study of another approach of quantifying the mobility of rack rent tenants, a sample of 32 large farms located in southern England was assembled using estate rentals in ten archives. To ensure the maximum possible diversity, no two properties from the same set of estate rent books were included. From each series of rentals, a large property was randomly selected and tenurial details recorded; the appendix lists the sources employed. Farms likely to be smaller than 100 acres were usually ignored because the focus of the project was on attaining turnover estimates for those holdings under which the majority of farmland was occupied.[22] Data collection ceased in the event of substantial boundary changes to the farm, for example upon enclosure, since like would not then be compared with like. Attempts to obtain demographic details such as family connections and deaths of occupants by consulting parish registers were abandoned after the successful linkage rate turned out to be very low.

Together, the thirty-two farms listed in thirty-two different sets of estate rentals provided 1,622 observations on the turnover of rack renters during 1697-1859.[23] The largest recorded time-series for a farm was 160 years, with the smallest being eight and the mean nearly 51 years. The properties lie across ten counties chiefly in the south midlands: six in both of Bedfordshire and Buckinghamshire, four in each of Berkshire, Hertfordshire and Kent, three in Oxfordshire, two in Northamptonshire and one in Cambridgeshire, Sussex and Wiltshire. Private individuals owned all the farms apart from five that were the property of institutions. The most densely covered period was *c*. 1760-1830, with the number of annual

[22] See M. Overton, *Agricultural revolution in England: the transformation of the agrarian economy 1500-1850* (1996), tables 4.10-4.13. In two cases the size rule was broken because a lengthy time-series could be easily transcribed.
[23] One observation is one year (New Style to Lady Day) on one farm.

observations peaking at nineteen around 1800. Coverage was poor during the start and end points of the sample.

The mean size of the sample farms was calculated at roughly 240 acres (median 220 acres). Precision is difficult due to potential measurement errors in contemporary surveys and incomplete information: for three properties no data on size was found, and for many others only a single observation was located. Because small holdings were deliberately excluded from the sample frame, the mean is substantially higher than other estimates of average farm size.[24] Unfortunately, there are no obvious available yardsticks with which to assess how well the sample reflects the characteristics of larger land holdings in southern England. Typically, there was little or no information available on the output produced on the sample farms, or how their acreage was distributed between arable, meadow and pasture.

On the presumption that the sample is adequate, descriptive statistics of the duration of occupancy for individual tenants and farming families can be presented. One method of calculating the mean duration involves pooling the annual data across all the farms and dividing the 1,622 observations by the total number of tenurial changes (118 individual and 73 family). Using this approach, the mean term of occupancy of an individual farmer was about 14 years, and the mean family term approximately 22 years. Another method assigns equal weight to each farm's set of observations by calculating the mean duration on each of the thirty-two properties and then taking the average of these. Table 4 presents the results.

[24] E.g. the *c*. 146-acres estimated for the south midlands in *c*. 1800. Allen, *Enclosure*, table 4.4.

Table 4. Descriptive statistics of individual and family tenurial terms on the sample farms, 1697-1859 (years)

	Individual	Family
Mean	14.7	27.4
Median	14.9	19.3
95% confidence interval for mean[a]	12.8, 16.6	20.8, 33.9
Minimum	4.8	5
Maximum	25	80
Sample size (farms)	32	32

Sources: See appendix.

Note: [a] Lower bound, upper bound.

Both methods generated very similar results, indicating a mean occupancy term for an individual of 14-5 years. The mean term for a family, approximately 22-7 years, appears to have been nearly double that of an individual. Calculations using the pooled data suggest that, when an individual lessee departed, in nearly two-fifths of cases another family member replaced him or her.[25] Widows were recorded as tenants on seven of the thirty-two farms, further supporting claims that on occasion their holding role was important in ensuring continued family occupancy.

The mean duration statistics become even more illuminating when they are compared to the formal contracts that gave farmers access to the land. Some tenancy details were found for twenty of the thirty-two properties. Treating each year of a tenancy-at-will as a separate observation, there are 80 observations on the length of farmers' leases. Tenancy-at-will accounted for 42 of these; the next most frequent were leases for 12 and 21 years (6 observations apiece).[26] The mean contract length was about 6 years. The actual term of farmers' occupation, 14-5 years, therefore appears to have been approximately twice as long as the length of their leases. For farming families (about twenty-five years occupation) the difference was four-fold. Moreover, there may be a bias towards long leases surviving in the archives, since estate managers presumably would have needed to keep these documents for a longer

[25] =(118-73)/118.

period of time than shorter agreements. If so, then the true mean contract length would have been less than the recorded six years, thereby making the divergence between the formal and actual duration of occupancy even greater than that suggested by the raw data.

It is tempting to disaggregate the sample, for instance to assess whether turnover was slower on large or enclosed farms. Regression analysis is hindered by a variety of technical problems; descriptive statistics suggest that individual and especially family tenurial terms tended to be longer on farms that were under 220 acres (the sample median), unenclosed and owned by institutions, but these results must be treated extremely tentatively due to the small number of observations in each sub-category (at most 15 farms).[27] Data paucity also precludes persuasive assessments of how the relationship between lease length and actual turnover changed over time. Mean occupancy terms were calculated for three groups of farms: those properties whose tenancy observations began before 1719; during 1790-1815; and after 1815. For what they are worth given the small sub-period sample sizes (at most seven farms), the results indicate that tenants' duration of occupancy declined over time, particularly for families, whose mean occupancy term was twice as long in farms with observations beginning pre-1719 compared to the two subsequent sub-periods.[28] The fragmentary data on contract length for these three groups of farms suggests that the mean lease length fell over time, but that tenants always stayed longer than the terms of their leases, and that the difference increased over the eighteenth century because the fall in mean contract length outweighed the decline in actual occupancy. The

[26] A twelve-year lease determinable every 3 years was treated as a 3-year lease, and so forth.
[27] Mean individual terms: 16, 15 and 16 years on small, open and institutionally owned farms respectively. Mean family terms: 37, 32 and 50 years respectively.
[28] Mean individual terms: 19, 14 and 16 years in the 1697-1719, 1790-1815 and post-1815 farm groups respectively. Mean family terms: 45, 24 and 20 years respectively.

duration of individuals rose from very approximately twice their contract length to nearly five-times; for families the increase was from roughly six- to eight-fold.[29]

In those clear instances of tenancy-at-will, totalling 42 observations across eight farms, the lessees did not move anything like annually. A tenant-at-will departed on only three occasions, and in two cases the incomer came from the same family as the outgoer. One relatively long surviving tenant-at-will was William Hill, who occupied Great Oak Close, Lilford, Northamptonshire, from 1798 until at least 1807.[30] The other was Samuel Bennett, who held a farm on the Paynes' estate at Tempsford, Bedfordshire, throughout 1807-25. Bennett's experience was not unusual for a substantial tenant-at-will on the Tempsford estate at this time, despite the likelihood of there being quite strong pressures to change the seven incumbents. In addition to the final years of a national agricultural boom, trustees ran the estate during the owner's minority; presumably they would have been keen to leave it in good order. And Charles Payne's actions after he came of age indicate that the family could not afford to neglect their estate: Charles mortgaged it, and then sold up in 1824. Finally, the estate managers were not shy of shaking up tenants, for four small occupants were given notices to quit in 1817. Despite these incentives for removal, all seven farming families in occupation in 1807 were still in place in 1825, as were five of the original seven tenants-at-will. Of course the Tempsford lessees could have been excellent agriculturists – and there is no indication of dissatisfaction with them in an

[29] The mean lease length of the 1697-1719 group was 8 years (14 observations), falling to 3 years for the 1790-1815 group (26 observations). Only one contract was found for post-1815 group. The small number of observations precludes consideration of changes in the importance of widows over time, the null hypothesis being that their role declined due to the alleged rise of separate spheres. Davidoff and Hall, *Family fortunes*, ch. 6.

[30] Hill survived until 1822, although his tenancy terms after 1807 are not known.

1810 estate survey – but this evidence does not suggest that even tenants-at-will were necessarily inherently mobile.[31]

V

Some contemporaries expressed concern about the security of sitting tenants when an estate was sold ('new lords new laws').[32] Even if relatively few farmers were at risk because substantial amounts of land were not frequently traded, it is still worthwhile attempting to assess the impact of new landowners on tenurial turnover.[33] As a first test, the sample of 32 large farms was divided into two groups: properties that had been owned by the same family for many years and those that had been newly purchased, with the cut-off point being continued ownership for 25 years before the first tenancy observation. The mean length of the individual and family terms were (respectively) four and five years longer on the 19 holdings that had been owned by the same family for over 25 years, suggesting some disruption to tenurial stability upon a change of ownership.[34]

A second method is to track farm occupancy before and after the land was sold. Havinden found records for two Berkshire parishes, East Lockinge and Ardington. In 1718, Matthew Wymondsold purchased land in East Lockinge, including the township of West Ginge. After his death, Wymondsold's property passed (by his widow's remarriage) to John Pollexfen Bastard who, by 1781, owned the whole of West Ginge and most of East Lockinge. Comparing the nine farmers

[31] Bedfordshire and Luton Archives and Record Service [hereafter BLARS], BS/1481/1-4, notices to quit, Aug. 1817; BS/1486-92, estate survey and rentals, 1807-25; WY/279, sale particulars, 1824.
[32] Pitt, *General view, Leicester*, p. 343, and in a different context, T. Hardy, *Far from the madding crowd* (1874; 1994 edn.), p. 71.
[33] Beckett in *Agrarian History* VI, pp. 546-64, and Turner et al, *Rent*, pp. 170-2, 214-5, provide overviews of the land market.
[34] Farms classified using J. Burke, *A genealogical and heraldic history of the landed gentry of Great Britain and Ireland* (London, 1837-8); idem, *A general and heraldic dictionary of the peerage and*

mentioned in a 1767 tithe survey of East Lockinge with a list of tenants liable for church repairs in 1718, just three surnames recur, all of whom were small-scale agriculturists. The changes seem to have been driven by a drive for consolidation, because in 1781 the whole parish was let to a single farmer. Similarly, in West Ginge five tenants were listed before Wymondsold's purchase, but by 1767 one man cultivated the whole.[35]

Table 5 lists the tenantry in East Lockinge during the nineteenth century before and after the Loyd family bought the manor from the trustees of the Bastard family in 1854. At that date, four of the seven farms had different tenants compared to 1842, although in only two cases were the new occupiers from another family. These latter newcomers represented 37 per cent of the total acreage of the farms as surveyed in 1842. By 1863, nine years after the purchase, one more tenant family had disappeared and Loyd had taken a farm in hand. Two more changes had occurred by 1868.

Table 5. Tenantry under different owners, East Lockinge, Berkshire, 1842-68

Farm	1842 *(Bastard trustees)*	1854 *(Loyd)*	1863 *(Loyd)*	1868 *(Loyd)*
East Lockinge farm	William Gibbs	Jas. Gibbs	Jas. Gibbs	Jas. Gibbs
Lockinge Kiln farm	William Clarke	Jas. Gibbs	Jas. Gibbs	Jas. Gibbs
West Ginge farm	Sarah Saunders	Chas. Tame	Jas. Bartholomew	?J. K. Reeves
Red Barn, West Ginge	John K. Reeves	J. K. Reeves	J. K. Reeves	J. K. Reeves
Ardington Wick farm	Richard Richards	Richard Richards	In hand	In hand
Ardington Estate farm	Thomas Richards	Thomas Richards	Thomas Richards	Thomas Richards
Ardington Clarke's farm	Mary Clarke	Chas. Clarke	Francis Clarke	In hand

Source: Havinden, *Estate villages*, tables 5, 15, appendix 5.
Notes: Landowner given in parentheses. Includes property in West Ginge and Ardington initially owned by Bastard.

baronetage of the United Kingdom (6th edn., London, 1840); *Victoria county history*, various vols. No information was found for two farms; the five institutional owners were excluded.

[35] M. Havinden, *Estate villages revisited: a second, up-dated edition of a study of the Oxfordshire (formerly Berkshire) villages of Ardington and Lockinge* (1999), pp. 37-43, appendix 1.

Table 6 gives details for Ardington, which changed hands thrice in the space of thirty years. The first comparison is the names of the farmers present when the Clarke family sold up in 1831 with those under the second new owner, Robert Vernon, given in the tithe award eleven years later (Vernon had purchased the estate in 1833). Three of the eight farming families, accounting for 15 per cent of the total acreage, had departed. All but one of those tenants surviving experienced large changes in the size of their holdings, gaining or losing upwards of a hundred acres. The second change of ownership was when the Loyd family bought the manor in 1861. Two years later, three of the four farms had different occupiers compared to 1854, two of which were a complete change of the occupying family (representing 70 per cent of the aggregate acreage in 1842). Seven years after the purchase, in 1868, one joint-tenant had departed and a second farm had been taken in hand. The Phillips family remained on Mead farm throughout the whole period covered by table 6.

Table 6. Tenantry under different owners, Ardington, Berkshire, 1831-68

Farm	1831 *(Clarke)*	1842 *(Vernon)*	1854 *(Vernon)*	1863 *(Loyd)*	1868 *(Loyd)*
East Betterton farm	William Lawrence	Richard Lawrence	Chas. Lawrence	Wm. Whitfield	Wm. Whitfield
Mead farm	James Phillips	James Phillips	James Phillips	John Phillips & Jos. Boot	John Phillips
Mill farm	Mr Tame	Edmund Tame	Robert Willoughby	Robert Willoughby	In hand
Opposite church	Mr Mallam	Richard Mallam	?Thomas Goodwin	In hand	In hand
Land nr the Portway	John Ballard	[3 Ballards were smallholders]	?		
Present in 1831 but not 1842: Life Dacre (house and grounds); J. Palmer and J. Wiltshire (both land in Mead)					

Source: As table 5 plus Havinden's tables 4, 6.
Notes: Landowner again given in parentheses. There were substantial acreage changes over 1831-42.

Linkage is also possible for the Payne's estate at Tempsford, Bedfordshire, sold to William Stuart in 1824. The first column of table 7 lists the substantial tenants-at-will at the time of the sale. In 1829, five of the seven lessees, who together

occupied 73 per cent of the total acreage, had survived the change of landlord, although John Bird lost more than 50 acres of land. Robert Denne, who left, had held the mansion house and grounds together with a small farm, which Stuart might have decided to occupy himself. Four years later, in 1833, Bird had departed completely, while Samuel Bennett had lost the acreage he had initially gained under the new owner.

Table 7. Tenants' survival under different owners, Tempsford, Bedfordshire, 1824-33

Tenants and acreage, 1824 *(Payne)*	Survivors and acres, 1829 *(Stuart)*	Survivors and acres, 1833 *(Stuart)*
Samuel Bennett, 342 acres	Samuel Bennett, 429 acres	Samuel Bennett, 336 acres
John Bird, 288 acres	John Bird, 236 acres	-
Silas Cross, 259 acres	-	-
Robert Denne, 163 acres	-	-
Richard Gell, 148 acres	Richard Gell, 148 acres	Richard Gell, 132 acres
Thomas Hill, 120 acres	Thomas Hill, 163 acres	Thomas Hill, 159 acres
Charles Woods, 240 acres	Charles Woods, 251 acres	Charles Woods, 259 acres

Source: BLARS WY/38, 279, 307, map reference book, sale particulars, schedule.

The evidence from these three parishes indicates that, even when land did change hands, a sale rarely had a completely destabilising effect on the incumbent tenantry. A change of ownership could quicken the speed of turnover, but at least as frequently the increase was barely perceptible.

VI

The above sections assessed the speed of turnover in the market for English farm tenure over 1700-1850. Qualitative evidence was drawn from contemporary comment, and quantitative evidence from the careers of famous agriculturists plus published and new studies at the estate and farm level. The data suggested that the turnover experience of rack rent farmers on private estates could vary widely according to local conditions, and that further work is needed to determine more fully the extent of differences by type of holding and over time and space, especially

considering that much of the above evidence relates to the south and midlands. Yet for historians seeking a generalisation of the national picture, the stylised fact of relatively low mobility appears to broadly hold, particularly given scattered evidence that at least a fifth of individuals' tenancy changes were caused by death or retirement rather than market forces. The extent of inertia should not be exaggerated, however. It appears, for instance, to have been unlikely for a farming family to survive for more than a generation or two on the same property. Nevertheless, it is perhaps telling that individuals and families stayed on their holdings for significantly longer than the duration of their leases.

Almost no historians have conducted an explicit Bayesian analysis of how their research might impact upon a reader's initial belief in the validity of the hypothesis under investigation.[36] Bayes' theorem states that a reader's belief that a hypothesis is true after reading new information (her posterior belief) can be expressed as her belief in the hypothesis before the information was available (prior belief) multiplied by a term (the Bayes factor) representing the updating of her old belief in the hypothesis as a result of viewing the new data. A non-rigorous example can illustrate how the information presented in this paper could change a reader's existing belief in the truth of the hypothesis of generally low tenurial mobility in England during 1700-1850 (against this hypothesis not being true). Suppose that a hypothetical reader initially believes that the odds in favour of the hypothesis are 2:1. Further suppose she believes that the odds of the empirical results presented above being found when the hypothesis is true are 3:1 in favour (this is the Bayes factor). Thus the impact of the new information on the reader is to raise her belief in the

[36] An exception is J. B. Kadane and D. A. Schum, *A probabilistic analysis of the Sacco and Vanzetti evidence* (1996). For explanations of Bayesian methods, see P. M. Lee, *Bayesian statistics: an introduction* (1997); A. O'Hagan, *Probability: methods and measurement* (1988). My thanks to David Firth for assistance with inquiries.

hypothesis from a prior odds of 2:1 in favour to a posterior odds of 6:1 (2:1*3:1): she becomes more firmly convinced that the hypothesis is correct.

In short, the above results should increase the degree of belief in the stylised fact that eighteenth and nineteenth century English tenant farmers were not inherently mobile.

APPENDIX: SOURCES OF THE LARGE FARM SAMPLE

Notes: Owner given in parentheses; all years are New Style to Lady Day.

Bedfordshire and Luton Archives and Record Service
BS/1486-92, WY/279: Bennett's, Tempsford, Bedfordshire (Payne), 1807-25.
C/1176-7, 1185-7, 1663-4, 1710, 1714, 1716-7, 1719, 1724, 1730, 1751-75: Berry Fields, North Keysoe, Bedfordshire (Crawley), 1704-1804.
FN/308/1-12; FN/1003-4, 1006, 1008, 1010: Rectory farm, Great Barford, Bedfordshire (Francklin, as tenant of Trinity College, Cambridge), 1821-39.
GA/2449, 2456, 2460: Stonebanks', Sharnbrook, Bedfordshire (Gibbard), 1818-38.
L/26/1159, 1173, 1177, 1180, 1484: Paradise farm, Crudwell, Wiltshire (Lucas), 1755-1808.
PA/175; X/186/26: Feary's farm, Upper Dean, Bedfordshire (Boswell), 1767-81.
PM/2384-86, 2938/1/1: Bailey's farm, Sandy, Bedfordshire (Pym), 1802-30.

Berkshire RO
D/ECR/E1: Furzy Knowle, ?Hanny or ?Shellingford, Berkshire (Goodlake), 1831-59.
D/EMT/A6-7: Freemantle farm, ?Wasing, Berkshire (Mount), 1772-87.
D/EPB/E15/1-13, E21; T29/1A, 2A: Old Hayes (etc.), Coleshill, Berkshire (Pleydell-Bouverie), 1766-75.

Bodleian Library, Oxford
MS.d.d.All Souls A/43-121, C/194-5: Parsonage Estate, Stanton Harcourt, Oxfordshire (All Souls College, Oxford), 1774-1852.
MS.d.d.Bertie D/4; MS.Top.Berks A/5, B/16-36, 38-9; MS.Top.Oxon A/46-7, B/197-206, C/383; Maps MS.c.17.13 (44)R: Late Webb's, Wytham and Seacourt, Berkshire (Bertie), 1760-1809.
MS.d.d.Harcourt B/17-21, B37, C/131, C/192/61, 63-4; C/194/23, 25, 27, 28, 30a, 32a; C/195/34, 36a, 38a, 40, 42a; Oxfordshire Archives, Welch CV/II/1: Shield or Shill Farm, Alvescot, Oxfordshire (Harcourt, as trustees of Blake's charity), 1798-1859.

Buckinghamshire RO
D/AF/122/216; D/AF/218/9, 40; D/AF/219, 221-2, 249-53: Wattson's, Dorton, Buckinghamshire (Aubrey), 1785-1825.
D/D/6/130, 139, 155; D/D/14/1/1Q-5Q; D/D/14/3Aa; D/D/14/35/5: Havering Down Farm, West Wycombe, Buckinghamshire (Dashwood), 1759-1848.
D/DR/2/81/1-33, D/DR/2/83: John Jane's, Amersham, Buckinghamshire (Tyrwhitt-Drake), 1812-51.
D/LE/3/150, 166, 169; D/LE/9/8-10, 18; D/LE/9/21/1-13, 22/1-24, 23/1-25, 31/1-10: Lodge farm, Medmenham, Buckinghamshire (Lee Antonie), 1776-1833.
D/LO/4/18, 21; D/LO/6/1/14, 21; D/LO/6/9/2, 4-5: Grove farm, Chesham, Buckinghamshire (Lowndes), 1745-1819.

Hertfordshire Archives and Local Studies
23434, 46712, 46716, 57371-2; K/516-7, 519: Fair Land or Fair Lawn farm, Stevenage, Hertfordshire (Lytton), 1797-1822.
27233, 27245, 27424/1: Caswell farm, Wheathampstead, Hertfordshire (Drake-Garrard), 1767-89.
61477/1-16: Field's farm, ?Barton and Offley, Hertfordshire (Wilshere), 1799-1806.

B/93, 252, 994, 1020-36: Rectory and Parsonage farm, Broxbourne, Hertfordshire (Bishop of London), 1697-1856.

Centre for Kentish Studies

U24/A2/1-43; U24/E1, E7: Fyll farm, Egerton, Kent (Mann), 1814-50.

U274/T12; U951/A22, A26, A33, A39, A42-4, C67, C136/3: South Stour farm, Mersham and Aldington, Kent (Knatchbull), 1761-1804.

U1950/E8/4-12, E10/1, T51-2: Brasted Court Lodge farm, Brasted, Kent (Stanhope), 1777-1853.

Northamptonshire RO

F(WW) 78-142 and unnumbered; Fitz Misc. Vols 92, 548, 550: Chapman's, Higham Ferrers, Northamptonshire (Wentworth-Fitzwilliam), 1750-1836.

POW/2-9: Great Oak Close, Lilford, Northamptonshire (Powys), 1741-1828.

Oxfordshire Archives

DIL/I/l/33A-U; II/i/4-5, 7-11: Spelsbury farm, Spelsbury, Oxfordshire (Dillon), 1702-1802.

DIL/XVII/c/11-5, 17-59: How's, Hardwick, Buckinghamshire (Lee), 1719-78.

Other

Christ Church College, Oxford, Archives, LIV/B/2; MS Estates 11, fos 100-260; Estates 12, fos 307-411: Hallwood farm, Chatteris, Cambridgeshire (Christ Church College, Oxford), 1818-44.

West Sussex RO, Goodwood MS 1904; E/4501-2; E/5143: Charlton Manor farm, Singleton, Sussex (Lennox), 1765-1801.

BPP, 1824, XIII, Charity Commissioners Report, pp. 252-3, appendix pp. 760-2: Clowder's Farm, Sydenham, Kent (Leathersellers Company), 1784-1822.