

The Population of Southern England in 1086: A New Look at the Evidence of Domesday Book

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Introduction

Domesday Book's practice of recording tenant numbers provides an opportunity to estimate the total population of an area. However, to do so first requires an understanding of the methods of Domesday Book's compilation and a careful evaluation of its recorded numbers. Such numbers then may be converted to total population estimates by making assumptions about household size and rates of omission. This study presents a revised method of calculating such estimates for the population of Southern England by arguing that more attention should be paid to the different categories of tenant recorded in the Survey than has been the case in previous attempts.

Domesday Book was completed in 1086, but its purposes are still shrouded in mystery, for the *descriptio* – as the Survey described itself – did not state its goals. Nineteenth-century writers argued that the Survey had a fiscal purpose¹ and this consensus largely went unchallenged until V.H. Galbraith instead proposed that Domesday Book 'set forth the legal theory of the new feudalism'.² However, recent scholarship has concluded that the Survey had a variety of motives.³ Faced with a pressing need to strengthen the crown's revenue and defensive capabilities in the face of Danish invasion,⁴ William and his advisers sought to conduct a tenurial inquiry into the wealth and holdings of all who held land directly from the king and to revise the royal revenues;⁵ the results were collated to form what was to become known as Domesday Book.⁶

In order to conduct the Survey, the country was divided into seven 'circuits',⁷ and within each circuit Commissioners gathered the information required, aided perhaps by pre-existing fiscal lists.⁸ They sought to achieve the king's goals by recording the transfer and holding of land, by noting the annual value of tenants' estates and by carrying out a fiscal reassessment of the country.⁹ Indeed, recent work has suggested that there was a clear correlation in

Domesday Book between the assessment, expressed in terms of hides, and an area's ability to pay, as defined by individual manor's resources.¹⁰

It was probably out of a concern to catalogue fully the labour resources of each manor that the Domesday Commissioners were apparently requested also to note tenant numbers. Their instructions for recording tenants appear to be preserved in the *Inquisitio Eliensis*, where a passage gives the following question to be asked concerning every holding:

*Quot villani, quot cot, quot servi, quot liberi homines, quot sochemanni.*¹¹

That is, how many villeins, cottars, serfs, freemen and sokemen were there?

The recorded Domesday population of Southern England

The answers to the Commissioners' questions show that Southern England in 1086 had a recorded rural tenant population of 102,499, a figure which represented 38% of the country's recorded number. The largest figure for the eleven counties under consideration, as Table 1 shows, was for Devon with 17,246, while Surrey had the smallest, with 4,105. Cornwall's recorded population was very dispersed, while Wiltshire, Somerset, and the South-east contained much denser pockets. In fact the Kent and Sussex coastal plains, together with parts of Norfolk and Suffolk, represented the densest areas of recorded population in the Survey, with regions with over 20 recorded tenants per square mile.¹²

It is important to stress that these figures relate only to the recorded population in Domesday Book, and not to the total overall population of England in 1086, for it seems clear that the Survey was only recording heads of households¹³ and that many signs of omission abound in the folios. For example, the burghal data are very inadequate; substantial boroughs like Winchester and even London were omitted completely.¹⁴ Consequently, it is difficult to discuss Domesday borough populations in any detail and they must largely be excluded from further examination here. Other examples include the omission of settlements known to be in existence by 1086, the exclusion of known activities (such as Cornish tin mining), and inconsistencies within the folios themselves (such as the recording of ploughteams with no one to work them).¹⁵ Finally, the work of two Domesday scholars has disturbingly suggested that whole groups

TABLE 1. RECORDED RURAL POPULATION OF DOMESDAY SOUTHERN ENGLAND

County	V	B	S	So	F	P	Col	Cos	Cot	Mis	Total
<i>W. Circuit</i>											
Gloucs.	3819	1859	2140		21	52	85			215	8191
<i>S.W. Circuit</i>											
Cornwall	1704	2426	1149				49			40	5368
Devon	8472	4866	3318			1	32	70	36	451	17246
Somerset	5273	4826	2120			3	208	56	392	113	12991
Wiltshire	3497	2783	1588			3	270	1411	285	107	9944
Dorset	2632	2990	1244			4	33	196	198	85	7382
<i>S.E. Circuit</i>											
Berkshire	2685	1859	793			6	24		734	38	6139
Surrey	2389	936	503						276	1	4105
Hampshire	3900	4000	1765			2	98			15	9780
Kent	6829	3372	1160	44	2	12			309	25	11753
Sussex	5883	2519	416			5			766	11	9600
TOTALS	47083	32436	16196	44	23	88	799	1733	2966	1101	102499

Notes: The abbreviations used are V: Villein; B: Bordar; S: Serf; So: Sokeman; F: Freeman; P: Priest; Col: Colibert; Cos: Coscett; Cot: Cottar; Mis: Miscellaneous.

These data are for the counties defined by their modern (pre-1973) boundaries. Thus, parts of Domesday Gloucestershire now in Wales are excluded.

Source: H.C. Darby, *Domesday England* (Cambridge, 1977) pp. 8, 338-45.

were almost completely omitted in some areas. Walmsley has shown that Domesday ignored the rent-paying tenants of Burton Abbey, perhaps only including them obliquely in the ploughland data in terms of the rent they paid. As a consequence, Sawyer has argued the *descriptio* may have omitted half the population – the rich rent-paying part – and only recorded the demesne peasantry, with the results that the size of the various groups in the population may have been underestimated by scholars, and the regional distribution of wealth distorted.¹⁶

It follows that the Survey is not a 'census of the population'¹⁷ and therefore it will never be possible fully to establish the true size of the overall population in 1086. At best, if there is assumed to be a constant – if unknown – relationship between those recorded and those omitted (especially those in the households of recorded household heads), then Domesday Book provides an invaluable guide to the relative distribution of the actual rural population, and this has tended to be the assumption made by many scholars.¹⁸ However, if the relationship is not constant, as Walmsley and Sawyer suggest, then data on recorded population can never fully indicate the relative pattern of actual population, and it is important to bear this caveat in mind when seeking to use Domesday's information on recorded population.

Before moving to the next stage in this analysis and considering the problem of the average size of the Domesday household – that is, the 'multiplier' that will be necessary to attempt to convert numbers of recorded household heads into an estimate for the total rural population – one further aspect of the Domesday record of population needs to be examined. Beyond simply giving numbers of recorded people, the Domesday folios attempted to distinguish between a number of categories of tenant according to the requirements of the *Inquisitio Eliensis*. These categories were broad-based for, as Miller and Hatcher have observed, they 'often cut across distinctions which were held to be of some importance' in eleventh-century society and, as they note elsewhere, 'economic lines and lines of status do not completely coincide' in Domesday Book.¹⁹ The nature of these broad categories is important, for their existence bears eloquent testimony to the range of human conditions in eleventh-century Southern England and gives some indication of the social and economic differences to be found across the South. It is possible that household size altered with economic and social status and it is necessary therefore first to consider the characteristics of some of the major categories of Domesday tenant before exploring such differences.

Villeins

Representing 41% of the country's recorded rural population and holding 45% of the land, villeins constituted the main farming group. Many of them would have held a standard holding of a virgate of thirty acres, and worked that land with a ploughteam, consisting on average of three oxen, and with the labour of their own family.²⁰ While the typical villeins were able to support themselves from their holdings, it would be wrong, however, to imagine all of them were farmers. Certainly, Eyton was of this opinion when he noted that 'the smith's condition was probably that of a villein . . .'. As Welldon Finn has remarked, 'the villein must often have been a tradesman and a technician with special responsibilities in the manorial economy'.²¹

Bordars, cottars, coscets, and coliberts

This group represented a 'general class of cottagers' in the Survey,²² and can be thought of as occupying a lower social and economic position than the villeins. According to the Survey, they represented 33.2% of the total recorded population of the country, yet only 5% of Domesday England's land was held by them. On average, each bordar farmed about five acres of land and possessed few, if any, plough animals. Many cottar holdings appear to have amounted to little more than a cottage and a garden and some may have lived in boroughs as servants or labourers.²³ Overall, this category should be seen as a group of smallholders whose condition was generally harder than that of the villein's, although at least better than that of the *servi*.

Serfs

The *servi* were normally landless and worked full-time on their lord's land, providing the bulk of the demesne workforce and ploughing services, although they had no share of their own in the ploughteams of the village.²⁴ In general, they were regarded with low esteem. Indeed, an example from Lewes, in Sussex, contains, as Darby says, 'a grim reminder of the general status of slaves for it tells us that the toll paid on the sale of a man was 4d.' At Bodmin, in Cornwall, another source states that the toll on female slaves was apparently the same.²⁵ To this picture must be added the fact that some serfs held an acre or two of land, and had a little free time to work for themselves,²⁶ but this can hardly have altered their general position and suggests that their material ability to support large families was severely limited.

An interesting problem arises from the suggestion that, unlike all of the other groups mentioned, Domesday Book recorded *servi* as

individuals and not as heads of household. Both Vinogradoff and Darby were undecided over this problem, while Maitland argued that the relationship altered across the country, and Welldon Finn suggested that only those with definite 'domestic' duties (especially ploughing) were recorded.²⁷ Clearly, this issue merits some consideration here since it has important implications for estimating the group's size.

Fortunately, Domesday itself provides some indications for the resolution of this enigma. Thus the diagnostic for Welldon Finn's suggestion is that the number of *servi* recorded in the Inquest should be twice the number of ploughs held by the lord.²⁸ This idea seems to be based on the assumption that on average it took two people to operate a plough in eleventh-century England.²⁹ However, what Domesday illustrates in numerous examples from Southern England is that there was no such straightforward connection between recorded numbers of ploughs and *servi*, and so it must appear that *servi* were not being recorded in the manner Welldon Finn argued.³⁰

The case for treating *servi* as individuals has been based on some entries that record populations of 'both male and female serfs' (*inter servos et ancillas*, where *ancilla* denotes a female serf).³¹ This wording implies that the entries refer to individual serfs rather than heads of household because there would be no need otherwise specifically to record females in such cases. However, the insufficient number of *ancillae* recorded across Domesday Southern England makes this view untenable on a general basis and suggests that their recording must be seen as extraneous comment by the Commissioners. In the great majority of counties, for example, no *ancillae* were recorded at all despite the strong probability that some must have existed there.³²

From this discussion it therefore appears most probable that Domesday Book was recording *servi* as heads of household, at least as far as Southern England was concerned, and this will be the assumption made here when using the data.

Burgesses

Reynolds has argued that the term 'burgess' 'seems to have had the relatively precise meaning in 1086 of one who paid his share of the borough dues.'³³ Such people held land in boroughs by what was to become known as burgage tenure, and usually only owed money rents. They also enjoyed much more freedom of alienation for their tenements than did smallholders in the countryside.³⁴ 'At least in the larger towns,' argue Miller and Hatcher, 'the typical burgess must

already have been a man mainly engaged in a trade or a craft' although it is clear that many were farmers.³⁵

Freemen and sokemen

Such individuals did not owe customary services to their lord and were able to leave the manor or sell their land without permission. Interestingly, none appear in the folios of any of the counties of the South-west circuit, and elsewhere in Southern England only 46 in Kent and 21 in Gloucestershire were recorded. This may indicate an idiosyncratic use of group definitions by the Domesday Commissioners in the region; many perhaps were actually silently included among the villeins.³⁶

Others

Finally, there exists within the folios occasional references to a wide assortment of other miscellaneous categories. For example, five beekeepers in Devon, 40 *cervisarii* in Cornwall, 56 salt-workers in Dorset, and 84 swineherds in Somerset are recorded.³⁷ These figures pose something of a mystery for it is inconceivable, for instance, that there was only one forester in the whole of Surrey, and the omission of the South-west's mining activity in the Survey is also curious.³⁸ The best solution to this problem perhaps is that, as with *ancillae* and freemen, their existence in the folios represented an extraneous comment by the Commissioners and that the bulk of such groups were already subsumed within the rest of the recorded population.³⁹ This might be because the activity was only part-time, or that Domesday was concerned only to record people by one of the principal categories of society, and not by occupation.⁴⁰

The description of these general categories has pointed to important socio-economic divisions within Domesday society, and has clearly suggested that the various groups were likely to have had very different means available to them to sustain their lives. Most importantly, it should be recognised that these varying levels of resources might have translated into very different abilities to support families. In other words, it would seem probable that the various categories of Domesday society considered here had very different average family and household sizes. This obviously makes the real task of estimating Domesday populations much more complex than previous scholars have indicated, but it is clearly an avenue which must be explored.

The estimated Domesday population of Southern England

It is generally agreed that Domesday Book recorded only heads of households.⁴¹ Thus to convert its information into estimates for total population it is necessary to multiply by the average size of the Domesday household. The derivation of such a multiplier, however, is complicated by at least three considerations: the necessary figure can only be an average, very little independent evidence exists on the size of the eleventh-century household, and confusion exists over the terms 'family' and 'household'. Maitland's conjecture was of a multiplier of 5.0 and this has stood the test of time remarkably well, most scholars agreeing with such an estimate.⁴² Certainly, Russell's case for an average household size of 3.5 has been effectively dismissed by Krause, and the contemporary consensus argues for an average household multiplier between 4.0 and 5.0.⁴³ It is in the nature of the problem that little corroborative evidence is available, but work by Hallam on the medieval Fenland, for example, does support an average figure of between 4.0 and 5.0.⁴⁴ Thus, if the data presented in Table 1 are multiplied by 5.0, the totals produced in Table 2 result, giving a total population estimate of 512,495 for Southern England.

Nevertheless, this view of a multiplier in the 4.0 to 5.0 range has itself received criticism, and some scholars have argued for a higher figure: Inman used one of 6.0, Davies one of 6.5, while Postan has argued strongly for estimates 50–75% above the consensus.⁴⁵ His case, based on the notion that villein holdings in Domesday were tenurial units occupied by several households and on the possibility that the concept of the medieval family has been too greatly influenced by modern ideas, is a very interesting one and may in many cases reflect the most appropriate view. Certainly, the work of Walmsley would also indicate the need, in certain circumstances, for a higher multiplier, for he has argued:

... five or six might be a satisfactory multiplier in some areas but at Burton, where at least two thirds of the Domesday households have been omitted we should need a multiplier in the region of fifteen or sixteen.⁴⁶

The consequences of this important finding are not only that in certain circumstances a multiplier higher than 5.0 might be needed, but also that any one multiplier cannot be applied indiscriminately across the country. There must have been regional variations in the size of the multiplier, just as the average size of the household must have varied across the country, and as a result it can no longer be

TABLE 2. ESTIMATED TOTAL DOMESDAY RURAL POPULATION, USING AN AVERAGE HOUSEHOLD SIZE MULTIPLIER OF 5.0

County	V	B	S	So	F	P	Col	Cos	Cot	Mis	Total
<i>W. Circuit</i>											
Gloucs.	19095	9295	10700		105	260	425			1075	40955
<i>S.W. Circuit</i>											
Cornwall	8520	12130	5745				245			200	26840
Devon	42360	24330	16590			5	160	350	180	2255	86230
Somerset	26365	24130	10600			15	1040	280	1960	565	64955
Wiltshire	17485	13915	7940			15	1350	7055	1425	535	49720
Dorset	13160	14950	6220			20	165	980	990	425	36910
<i>S.E. Circuit</i>											
Berkshire	13425	9295	3965			30	120		3670	190	30695
Surrey	11945	4680	2515						1380	5	20525
Hampshire	19500	20000				10	490			75	48900
Kent	34145	16860	5800	220	10	60			1545	125	58765
Sussex	29415	12595	2080			25			3830	55	48000
TOTALS	235415	162180	80980	220	115	440	3995	8665	14980	5505	512495

Notes: Abbreviations used are listed in Table 1.
Source: Table 1.

argued that the recorded population in Domesday adequately reflects the relative density of the actual population in 1086; it is perhaps more an artefact of the Survey.

Consequently, it is possible that previous attempts which have assumed a single average multiplier have underestimated the country's total population and have distorted its distribution. There is, of course, little which can be done about this since the spatial variations in household size are now irrecoverable, and data such as that from Burton Abbey almost unique. All that can be done – though this is in itself a step forward – is to realize the difficulty and to recognise that any estimates or maps of population based on Domesday can only hint at the actual size and distribution of population in 1086. Thus, Havinden has recently argued that the Survey may have consistently omitted Somerset's freemen because, as Harvey has argued (and has been discussed above) Domesday was only concerned to list individuals if they were directly responsible for paying taxes. Certainly, when considering the national distribution of Domesday's population, Dodgshon has suggested that if allowance is made for the *censarii* and other omitted groups, 'then the westward slope of population density may not have had so steep a gradient as Darby's maps suggest'.⁴⁷

It also follows from the work of Walmsley and Sawyer that it is wrong to apply a single average multiplier indiscriminately to all groups in the population, for – as they show – some categories of tenant need to be multiplied by as much as 15.0 if they are to approach their true size.⁴⁸ A uniform multiplier, therefore, distorts the relative importance of various groups within the population, just as much as it distorts the spatial patterning. One important aspect of the presence of various groups is not, however, mentioned by either Walmsley or Sawyer, and this needs to be considered here for it has profound implications for the discussion of Domesday population.

On *a priori* grounds at least, one would expect that more wealthy tenants would be able to support larger families than poorer tenants, and that therefore any scheme which multiplies all tenants by the same average household multiplier must inevitably distort the actual picture. In other words, the concept of a single average household multiplier must be replaced by a differential set of multipliers which take into consideration the varying socio-economic circumstances of Domesday tenants. To pursue this line of investigation, it is thus necessary to see whether this *a priori* assumption is valid, and then to examine whether it can be applied to the Domesday data from Southern England which was presented in Table 1.

As has already been argued, extant evidence on the size of

Domesday households is almost impossible to find, and it is therefore necessary to turn to research on the later medieval period for such data. Indeed, there is increasing evidence now becoming available that the size of families did in fact vary with the size of their landholdings in the thirteenth and fourteenth centuries.⁴⁹ Summarising this work, Zvi Razi has said, '... the wealthier a family was, the larger was the number of its children.'⁵⁰ His own study of the manor of Halesowen in Worcestershire, between 1270 and 1400, gives an important guide to the nature of these differences. He shows that the most frequently occurring family size of those tenants who held a virgate of land (approximately 25–30 acres) was about 6.0, almost 4.0 for those with half a virgate, and for those with a quarter of a virgate it was approximately 3.0.⁵¹

However, before applying later medieval figures as a guide to the Domesday case, it is worth considering three impediments to their use. First, the evidence relates to family and not to household size. As a result the presence of elderly kin, servants, and lodgers is ignored. However, since this causes only the size of wealthier families to be underestimated (since poorer families generally cannot afford to support dependants outside their immediate family) and because household size is also likely to be related to landholding size, it may be valid to use family size figures in order to derive some estimates for Domesday. This is reasonable provided it is realised that any such figures are likely to underestimate the true size of various groups, especially at the more wealthy end of the spectrum, and to underestimate the difference between groups. However, at least, the use of such differential multipliers, even if only based on family data, will not totally mask the differences between categories of tenants in the way that the use of a single multiplier has done.

Second, multipliers obtained from the thirteenth and fourteenth centuries may not be applicable to the eleventh century. They were influenced in a large measure by a growing land shortage, and may not therefore be relevant to the conditions of 1086. However, in place of absolute land shortage, a restricted access to land can be considered to have still operated, structured by such constraints as the manorial system, the land market, wealth, serfdom and the differential demands of labour services made on various social groups. These all acted to restrict the land available and the time to work it, depending on the status of the villager.⁵² Moreover, reference to later medieval data is a recognised practice by Domesday scholars, as the use of Hallam's Fenland work has already demonstrated. Thus, such later data may be considered to have some validity in a Domesday context.

A third area of difficulty concerns the problem of matching divisions based on landholding in the thirteenth century with the categories of tenants observed in Domesday, for the divisions used in the *descriptio* were not based on the area of land farmed. Thus it was certainly possible for a bordar to hold a greater area of land than a villein, while still being his inferior in terms of Domesday's generic socio-economic classification. Nevertheless, it should be noted that while such cases often occurred, in general terms the majority of villeins did farm more land than bordars or cottars, and this has been illustrated in the descriptions of the various types given above. Certainly, one noted scholar, Rex Welldon Finn, has clearly argued that Domesday's categorisation of people did reflect landholding differences.⁵³

Having considered these three problems, and bearing their caveats in mind, it does seem possible to argue that the socio-economic categories of Domesday Book might reflect landholding differences, and that such differences might have given rise to variations in household size in 1086. If these conclusions are at all valid, it seems interesting to explore their implications in terms of Domesday population in some detail, and to do this it becomes necessary to attribute average household size multipliers to the various categories of Domesday tenant. In fact, this is relatively straightforward for it will be observed, from the above descriptions, that the possible landholding differences which have been noted between Domesday tenant groups broadly correspond with the landholding divisions which Razi records in the thirteenth century.

Thus, it is argued that since Domesday's typical villein appears to have held 30 acres of land, the multiplier of 6.0 which Razi later finds for such a landholding category seems appropriate for this group. Bordars, who generally farmed only five acres, would seem suited by a multiplier of 4.0, while the recorded number of cottars, coscets and coliberts are perhaps best multiplied by 3.0 in view of the small amount of land they held. *Servi* are considered to have an average multiplier of 3.0. Priests, Burgesses and the miscellaneous group are multiplied by 6.0.⁵⁴ These figures constitute here a set of 'differential' Domesday average household multipliers which, it is argued, will more sensitively reflect Domesday's population and distribution than the single average household multiplier of 5.0 which hitherto has been used by scholars.

The results of recalculating Southern England's estimated Domesday population using these differential multipliers are given in Table 3. This yields an estimate of 484,950 for the population of this region in 1086, a figure which is only 27,545 lower than that obtained from

TABLE 3. ESTIMATED TOTAL DOMESDAY RURAL POPULATION, USING DIFFERENTIAL MULTIPLIERS

Multiplier	V	B	S	So	F	P	Col	Cos	Cot	Mis	Total
County	6.0	4.0	3.0	6.0	6.0	6.0	3.0	3.0	3.0	6.0	
<i>W. Circuit</i>											
Glouces.	22914	7436	6420		126	312	255			1290	38753
<i>S.W. Circuit</i>											
Cornwall	10224	9704	3447				147			240	23762
Devon	50832	19464	9954			6	96	210	108	2706	83376
Somerset	31638	19304	6360			18	624	168	1176	678	59966
Wiltshire	20982	11132	4764			18	810	4233	855	642	43436
Dorset	15792	11960	3732			24	99	588	594	510	33299
<i>S.E. Circuit</i>											
Berkshire	16110	7436	2379			36	72		2202	228	28463
Surrey	14334	3744	1509						828	6	20421
Hampshire	23400	16000	5295			12	294			90	45091
Kent	40974	13488	3480	264	12	72			927	150	59367
Sussex	35298	10076	1248			30			2298	66	49016
TOTALS	282498	129744	48588	264	138	528	2397	5199	8988	6606	484950

Note: The abbreviations used are listed in Table 1.

Source: Table 1.

TABLE 4. THE EFFECTS OF DIFFERENT AVERAGE HOUSEHOLD SIZE MULTIPLIERS ON DOMESDAY POPULATION TOTALS

	Villeins		Bordars		Serfs		Priests		Colib.		Cosceits		Cottars		Miscell.		Totals		Ranks		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	c	d	e	f	g
<i>W. Circuit</i>																					
Gl	46.6	59.1	22.7	19.2	26.1	16.6	0.600	0.800	1.0	0.7					2.60	3.30	40,955	38,753	-5.4	7	7
<i>S.W. Circuit</i>																					
Co	31.7	43.0	45.2	40.8	21.4	14.5			0.9	0.6					0.80	1.00	26,840	23,762	-11.5	10	10
De	49.1	61.0	28.2	23.3	19.2	11.9	0.005	0.007	0.2	0.1	0.4	0.3	0.2	0.1	2.60	3.20	86,230	83,376	-3.3	1	1
Sm	40.6	52.8	37.2	32.2	16.3	10.6	0.020	0.030	1.6	1.0	0.4	0.2	3.0	2.0	0.90	1.10	64,955	59,966	-7.7	2	2
Wi	35.2	48.3	28.0	25.6	16.0	10.9	0.030	0.040	2.7	1.9	14.2	9.7	2.9	1.9	1.10	1.50	49,720	43,436	-12.6	4	6
Do	35.7	47.4	40.5	35.9	16.9	11.2	0.050	0.070	0.4	0.3	2.7	1.8	2.7	1.8	1.20	1.50	36,910	33,299	-9.7	8	8
<i>S.E. Circuit</i>																					
Bk	43.7	56.6	30.3	26.1	12.9	8.4	0.100	0.100	0.4	0.3			12.0	7.7	0.60	0.80	30,695	28,463	-7.5	9	9
Sy	58.2	70.2	22.8	18.3	12.3	7.4							6.7	4.1	0.02	0.02	20,525	20,421	-0.5	11	11
Ha	39.9	51.9	40.1	35.5	18.0	11.7	0.020	0.030	1.0	0.7					0.20	0.20	48,900	45,091	-7.7	5	5
Ke	58.1	69.0	28.7	22.7	9.9	5.9	0.100	0.100					2.6	1.6	0.20	0.30	58,765	59,367	+1.0	3	3
Sx	61.3	72.0	26.2	20.6	4.3	2.5	0.050	0.060					8.0	4.6	0.10	0.10	48,000	49,016	+2.1	6	4
TOTALS																	512,495	484,950			

Notes:

- a. Percentage of county's total estimated rural population, using an average household size multiplier of 5.0 (from Table 2).
- b. Percentage of county's total estimated rural population, using differential average household size multipliers (from Table 3).
- c. Total county's estimated rural population, using an average household size multiplier of 5.0 (from Table 2).
- d. Total county's estimated rural population, using differential average household size multipliers (from Table 3).
- e. Percentage change in total estimates, comparing (d) with (c).
- f. Rank of county, by population total, using an average household size multiplier of 5.0.
- g. Rank of county, by population total, using differential average household multipliers.

County and category abbreviations are given in Table 2.

Data may not sum exactly to 100% in all cases due to rounding of individual category totals.

Sokemen and freemen are omitted from this table, although they have been tabulated separately in Tables 1, 2, and 3. This only involves the Gloucestershire and Kent cases. For Kent, the individual category data are: sokemen, (a) 0.4 (b) 0.4; freemen, (a) 0.02 (b) 0.02. For Gloucestershire, the individual category data are: freemen, (a) 0.3 (b) 0.3.

Sources: Table 2, Table 3.

the single multiplier of 5.0 (Table 2). Such a difference is, of course insignificant when all the margins of error in this case are considered. However, it is not in the derivation of a final figure for total population that the real value of differential multipliers lie. Rather, by focusing attention on the key variable that is available for analysis, the varying strength of various groups in the population, such multipliers highlight relative spatial differences in Southern England's constituent communities, and so indicate more fundamental aspects of Domesday's population than attempts to calculate global estimates can ever reveal. This focus operates on a variety of scales: the county level; on the hundred scale within counties; and, finally, on the level of varying communities within each hundred. Interestingly, the effects of the use of differential multipliers at each of these scales can be demonstrated using the data for Southern England.

Thus, to consider the county scale first, it can be seen from Table 4 that the use of differential multipliers results in an average reduction of 5.7% in the estimated population of most of the Southern counties. However, two counties experience a relative increase in numbers: Kent, with a gain of 602 achieves a 1.0% rise, and Sussex witnesses an increase of 1,016, or 2.1%, in its size. As a result, the rank order of Sussex, in terms of estimated population, rises from sixth to fourth, while that of Kent remains unaltered at third in the region.

A closer inspection of Table 4 reveals that the reason for these changes in size and rank are due to the differential effects of the chosen multipliers on the relative sizes of the component groups of each county. As the table shows, bordars, serfs, coliberts, coscets, and cottars witness a relative decline in their numbers because their multipliers have changed from 5.0 to 4.0 and 3.0. Alternatively, villeins and members of the miscellaneous group experience an increase in size, since their multiplier has increased from 5.0 to 6.0. In other words, Table 4 clearly shows that if a county contains a majority of bordars, serfs, cottars and other such tenants, in its recorded population then it will witness a decline in numbers if differential multipliers are used. On the other hand, a county where villeins predominate in terms of recorded numbers will experience an overall increase in its estimated population size. Surrey, with 58% of its total recorded population in the villein category, Kent with 58%, and Sussex with 61%, were the only counties in Southern England where villeins constituted over 50% of the recorded population.⁵⁵ Of these counties, Kent and Sussex experienced an increase in numbers and relative rank, and it is not without interest that Surrey, while not increasing in population size, experienced the lowest rate of decline at -0.5%. The use of differential multipliers at a county scale can be

thus seen to increase the relative position of South-east England, and to decrease the relative position of the rest of Southern England in terms of estimated population (see Tables 1 and 4).

It is instructive to turn attention now to the level of the individual county, and to consider variations across constituent hundreds. The county of Wiltshire fell from fourth to sixth in terms of estimated population ranking when differential multipliers were used, and it was the only county in Southern England to witness any decline. It is thus interesting to consider Wiltshire as an example of the actual complexity of local experience for, as will be shown, by no means do all parts of the county demonstrate the same changes.

Table 5 presents the estimated Domesday population of Wiltshire by hundred, using differential multipliers. It also shows the change in ranking which the use of those multipliers has produced when compared with a blanket multiplier of 5.0. It can be seen that those hundreds which saw a relative increase in their size were Heytesbury, Mere, Kingsbridge, Elstub, Alderbury, Damerham, and the joint hundred of Cawdon and Cadworth. All of these, with the exception of Kingsbridge, lay to the south of the county. Areas which saw a relative decline were largely in northern Wiltshire. As at the county level, what this suggests is that a differential treatment of Domesday's population (especially its villeins and *servi*) will alter the relative distribution of total estimated population in a region. Evidence from the Wiltshire case also provides circumstantial support for such treatment, since it offers some confirmation of the greater ability of groups within those southern hundreds to support larger households.

Thus, for example, Damerham, Kingsbridge, and the joint hundred of Cawdon and Cadworth, were among the highest valued hundreds in Wiltshire in Domesday Book, with values of £4.3 and £10.0 per square mile. As such, they were important contributors to Wiltshire's total value in Domesday, which stood third nationally, at 69 shillings per square mile, far in excess of the country's average of 32 shillings. Indeed, Wiltshire had the highest values per man (11 shillings) and per ploughteam (32 shillings) in England.⁵⁶ Sawyer, reviewing this data, has argued that the basis for these high values was pastoralism, the backbone of the English economy at this time:

It seems likely that such traditionally important sheep areas as . . . Wiltshire and the Berkshire Downs were already sheep-producing regions in the eleventh century and the Domesday values do seem to be much higher in sheep areas than elsewhere.⁵⁷

TABLE 5. THE ESTIMATED TOTAL DOMESDAY POPULATION IN WILTSHIRE

<i>Hundred</i>	<i>Vill.</i> ($\times 6$)	<i>Bord.</i> ($\times 4$)	<i>Serfs</i> ($\times 3$)	<i>Cot.</i> ($\times 3$)	<i>Cosc.</i> ($\times 3$)	<i>Col.</i> ($\times 3$)	<i>Burg.</i> ($\times 6$)	<i>Mis.</i> ($\times 6$)	<i>Totals</i> (a)	(b)	<i>Rank</i> (c)
Highworth	264	88	51		96				499	575	-
Scipe	216	164	27						407	430	-
Staple	228	72	51	39	30				420	480	-
Cricklade	408	196	96	12	33		210		955	995	-
Malmesbury (d)	1,812	372	330	195	471	21	524		3,725	4,107	-
Dunlow	120	112	36						268	300	-
Thorngrove	150	120	51	15					336	385	-
Chippenham	1,644	584	363	186	486	30		144	3,437	3,995	-
Bradford	480	380	96			54	198	138	1,274	1,315	-1
Melksham	684	356	153		153				1,346	1,525	-1
Whorwellsdown	504	292	111		9	30			946	1,035	-2
Westbury	228	172	96			48		228	772	835	-
Warminster	600	348	150	48	24	42	180	78	1,470	1,590	-1
Heytesbury	450	184	144	15	207	48			1,048	1,295	+2
Mere	528	336	96	87	216				1,263	1,525	+2
Dunworth	708	496	57			36		6	1,303	1,370	-3
Chalke	732	308	87		21	30			1,178	1,225	-9
Cawdon & Cadworth	402	280	93	57	255	51	180		1,318	1,595	+3
Branch & Dole	942	580	333	33	126	63	396		2,473	2,765	-
Potterne & Cannings	648	740	108			15		12	1,523	1,680	-
Calne	486	512	129	6	372	30	444	6	1,989	2,320	-
Kingsbridge	348	396	168	63	129				1,104	1,385	+3
Blackgrove	306	260	72						638	700	-
Thornhill	612	240	69						921	925	-2
Ramsbury	408	296	27						731	755	-

Selkley	1,188	600	204	9	114	42	6	2,163	2,360	-
Studfold	474	412	123	57			6	1,072	1,215	-1
Swanborough	864	292	270		420			1,846	2,235	-
Elstub	366	328	198		15	24		931	1,110	+1
Kinwardstone	1,956	288	318	72	486	42	150	3,312	3,645	-
Amesbury	936	624	357	30	249	15	12	2,223	2,655	-
Aldbury	360	176	93	33	195		24	881	1,075	+3
Frustfield	42	56	9		42			149	190	-
Downton	408	128	120		15			671	725	-
Damerham	252	76	24			114		466	535	+1
Salisbury (e)	204	288	3					495	535	-
unlocated (f)	6	28	12					52	70	-
Total (g)	20,964	11,112	4,725	957	4,170	735	660	45,605	51,457	

Notes:

- Total estimated Domesday population of Wiltshire, using differential average household multipliers.
 - Total estimated Domesday population of Wiltshire, using an average household multiplier of 5.0.
 - The hundred's change in rank, in terms of total estimated population size, from an ordering based on an average household size multiplier of 5.0, to an ordering based on differential average household size multipliers ('-' denotes no change in rank).
 - To take into consideration a quarter of a *masura* recorded for the borough of Malmesbury, its total is increased by 2.0 (0.25 $\times$ 6.0, plus rounding upwards) for total (a), and by 2.0 (0.25 $\times$ 5, plus rounding upwards) for total (b).
 - Salisbury is extra-hundredal.
 - The following cannot be identified: *Gategram*, *Chenebuild*, *Bichenhilde*, and *Celdewell*.
 - The total estimated Domesday population of Wiltshire is larger than that given in Table 4, which is derived from data given in H.C. Darby, *Domesday England* (Cambridge, 1977), pp. 338-45. This is because the detailed tabulation given here is based on the medieval county, includes boroughs and identifies more places than do Darby's data.
- Hundred designations are from J. Gover, A. Mawer, and F. Stenton, *The Place Names of Wiltshire* (Cambridge, 1939). Tenant category abbreviations are given in Table 1, except 'Burg.' which denotes burgesses.

Source: A.E. Nash, 'Population Change in late Medieval Wiltshire' (unpub. Ph.D. thesis, Cambridge Univ, 1984), pp. 148, 151-2, 160.

Thus, those Wiltshire hundreds which may have had a higher proportion of large families than elsewhere were located in what was already a rich long-established sheep-rearing area based on the Wiltshire chalklands.

A 1225 taxation list provides a further refinement to this view because it demonstrates that while peasant flocks were sizeable in south Wiltshire, only the richest tenants actually owned sheep. At Homington, in Cadworth and Cawdon hundred, one man alone owned 127 of the village's 238 sheep, at West Hatch three men owned the entire village flock. Thus, while it may be remarkable that there were so many village sheep – at Damerham, for example, the flock amounted to 1,053 sheep – it is perhaps equally remarkable that so many of the villagers had very few or none of these animals.⁵⁸ As Postan has argued:

Thus sheep-farming in our part of south Wiltshire appears to have been to a large extent the rich man's occupation . . . the middling and small man in the reputedly sheep-farming villages of South Wiltshire was the man with 'three acres and a cow'.⁵⁹

In other words, while these areas were prospering to a greater extent than other parts of Wiltshire from their participation in pastoralism, only certain individuals within those areas were able to enjoy the full economic benefits. The prosperous villein, then, in Heytesbury, Mere, Cawdon and Cadworth, Kingsbridge, Elstub, Alderbury and Damerham was much more likely to be engaged in sheep rearing than other groups within the same hundreds, or elsewhere in the county. Moreover, since the rewards for engaging in this activity were often much higher than those for most other available occupations at the time,⁶⁰ it is not unreasonable to argue that such individuals had a greater ability to support larger households than did others in the population.

A brief comment on borough populations will serve to demonstrate the effects of differential multipliers on the final scale of analysis: the individual community. Clearly, the results of using group-specific multipliers at this level will be to inflate preferentially the total estimated population of individual communities which contained more villeins, or burgesses and other miscellaneous individuals by comparison with manors in which bordars and *servi* predominated. In other words, the gap between the largest and the smallest settlement in a region, in terms of population, will be increased, and the scale of the settlement hierarchy will be expanded.

What this means is that it is likely that there was a bigger difference

between the sizes of Domesday communities than is presently imagined, and that the size of larger communities, especially boroughs, has been considerably underestimated. Of course, as stated above, the Domesday data on boroughs is fragmentary at best, and there are considerable problems with its treatment, but the use of a larger multiplier for burgesses would give at least some further indication of the impact of a slowly developing borough sector in the economy. Thus, for example, to use the Wiltshire case again, if the average household multiplier for burgesses is increased from 5.0 to 6.0, this results in a 20% increase in the size of Wiltshire's burghal population, from 1,902 to 2,282 (see Table 5). As a proportion of the total estimated population, Wiltshire's burghal population rises from 3.7%, using a single multiplier of 5.0 for the whole recorded population, to 5.0% if differential multipliers are used. Obviously, this small increase is not significant in itself, but it does possibly allow a more realistic sense of the borough's contribution to an area's total population. Moreover, a 20% increase in the size of individual boroughs such as Cricklade or Wilton is of some importance for it may paint a fairer portrait of these communities at a time when they were beginning to develop and integrate Wiltshire's market economy. Certainly, the use of differential multipliers makes it impossible for Wishford, in Branch and Dole hundred, to attain, with a recorded population of four villeins and 21 bordars, the same estimated population size as the borough of Bedwyn with 25 burgesses.⁶¹ Under an average overall household multiplier of 5.0, both communities record a figure of 125, but under differential multipliers Wishford achieves an estimated population of 108, and Bedwyn one of 150.

However, there does remain one area where differential multipliers are as mute as more simple overall average household multipliers, and that concerns the intractable problem of omission. It is clearly impossible, at this remove, to solve this difficulty, since the bases for estimating an omission rate are unknown, and it is impossible to judge whether any suggested value is realistic or not. Nevertheless, it has to be admitted that Darby's figure of 5% looks very small in the light of examples of later medieval omission.⁶² Therefore, it is probably wiser, if a general figure must be given, to lean towards an estimate of 35%, since this is likely to be of the right order, given the general rates found in other medieval sources.⁶³ Certainly, such a figure is more in line with Postan's suggestion that perhaps 50% of all households were omitted in Domesday, and with Havinden's calculations based on Somerset's ploughland total in the Survey.⁶⁴ Such a figure for omission would give Southern England an

overall total Domesday estimated rural population of 654,683, an increase of 169,733 over the total derived from the use of differential multipliers without an omission factor.

To complete the picture, since this part of the analysis has so far only been concerned with the resident rural population, 3,672 tenants-in-chief and under-tenants, and an estimated 46,000 burghs (to allow for Domesday's fragmentary record here) might be added,⁶⁵ to produce a final figure of 704,355. Such a figure perhaps represents the best estimate available for the total population of Domesday Southern England.

Conclusions

Those who attempt to estimate Domesday population figures are fortified by the encouragement of such scholars as Salway, who has recently argued:

For medieval England historians have expended a great deal of effort on the size of the population at different periods. Their conclusions are very varied, since the evidence is subject to different interpretations, but they are right to place so much importance on the subject.⁶⁶

Indeed, there are three major reasons why medieval historians should consider the size of Domesday's population: the subject's intrinsic importance, its value in comparative analyses, and the worth of an examination of the relative distributions of Domesday's component population groups. To be able to state with some confidence that the population of Domesday Southern England could not have been less than 700,000 in itself is an important result, and as Darby argued when commenting on his national estimate of 1.5 million, merely 'to be able to say this for such a remote date is in itself an indication of the value of Domesday Book as a source of information'.⁶⁷

Recent work has convincingly indicated that the population of Roman Britain was higher than that of 1086, and was likely to be between 4.0 and 6.0 million in size. This level was not again reached until perhaps 1300. However, the country's population by 1450, after the ravages of plague in the fourteenth century, was scarcely larger than it had been at Domesday. Such comparisons bear testimony to the precocious developments of the Romano-British and the thirteenth century, and bear witness to the leadening effects of epidemic diseases in the years after the Black Death.⁶⁸

In the context of Southern England, Havinden has recently argued

that the total population for Somerset in 1086 was between 88,000 and 93,000, a figure which is eloquent of the abilities of the Domesday cultivator when it is compared to Somerset's figure of 274,000 from the first census of 1801.⁶⁹ For Wiltshire, evidence for 1086 produces an estimate of almost 46,000 people. This compares with a figure of between 31,000 and 35,000 obtained from the 1524/5 lay subsidy and clearly demonstrates the pattern of population change found nationally.⁷⁰ While these levels appear low, and seem to be signs of under-utilisation of the land, it is sobering to reflect that the Domesday figure itself would have appeared huge to Wiltshire's Mesolithic population of hunter-gatherers, for their average number at any one time is estimated to have been not more than 175 for the whole county. Turning to Sussex, Professor Cunliffe has argued for a population of 25,000 at the beginning of the Saxon period. This should be compared with a figure of 35,000 at Domesday, or some 650 years later.⁷¹ The second reason for constructing Domesday estimates, that of comparison, therefore seems to be valid and worthwhile. As Postan has argued:

much more significant than global numbers of population is its dynamics, i.e. the speed and direction of its movements and its changing relation to other economic factors.⁷²

Certainly, it would be agreed that to seek much more than general comparisons or intrinsic interest from such global figures would be to clutch at a chimera. However, the third purpose in analysing Domesday population is not to build on estimates in such a manner, but rather to turn attention to a close scrutiny of the variations in the size of the component groups which lie within the Domesday record itself. By focusing on that wealth of local detail, it is possible to begin to analyse differences in the distribution and type of population at a county level, at a hundred level and even at the scale of an individual community, as has been done here. Such an analysis enables the richness of Domesday to be more fully exploited than has hitherto proved possible, and to explore with greater precision the differences in population which may have existed between different regions, and between different groups in Domesday society.

In other words, this analysis has attempted to go beyond intrinsic interest and global estimates, and has endeavoured to show that within the folios themselves there lies another dimension of analysis. This has concerned the comparison of the relative size of various groups in Domesday's population. Whether the actual operation of the differential multipliers used here is valid or not, it is clear that the

comparison of the Survey's constituent populations, and the construction of group-specific multipliers, offers a potential which has until now been greatly neglected in Domesday population studies. As Havinden has recently commented:

the amount of detail which the Survey contains is staggering, and enables contrasts to be made between different regions, which are likely to reflect real differences, even if the real figures are suspect.⁷³

It has been with those contrasts to which Havinden refers that this discussion has been principally concerned, and it is to be hoped that by revealing the importance of a differential treatment of Domesday's various populations in the case of Southern England, that the value of such work in the general study of Domesday population has been demonstrated.

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Notes

¹ J.H. Round, *Feudal England* (Cambridge, 1895), pp. 17–26; F.W. Maitland, *Domesday Book and Beyond* (Cambridge, 1897).

² V.H. Galbraith, *The Making of Domesday Book* (Oxford, 1961), p. 54.

³ S.P.J. Harvey, 'Domesday Book and its predecessors', *English Historical Review*, 86 (1971), p. 753.

⁴ H.R. Loyn, *The Norman Conquest* (London, 1965; 3rd. edn. 1982), p. 129; S.P.J. Harvey, 'Domesday Book and Anglo-Norman Governance', *Transactions Royal Historical Society*, 5th. ser., 25 (1975), pp. 181–83.

⁵ Harvey, *Eng. H.R.*, pp. 769–70; *Trans. R.H.S.*, p. 182.

⁶ A title first recorded almost a century after its compilation and based on a reference to *Revelation* 20:12 (the allusion is clearer if it is recalled that the Anglo-Saxon for 'judgement' was *dom*): H.C. Darby, *Domesday England* (Cambridge, 1977), p. 6; *Chambers Etymological Dictionary*, ed. A. Findlater (London, 1918), p. 137, I am grateful to Dan Hastings for the latter point.

⁷ Darby, *Domesday England*, p. 7. Of the counties defined in this paper as 'Southern England', Cornwall, Devon, Dorset, Somerset and Wiltshire comprised the South-west circuit; Berkshire, Hampshire, Surrey, Kent and Sussex comprised the South-east circuit, while Gloucestershire was included in the Western circuit.

⁸ Harvey, *Trans. R.H.S.*, pp. 182, 191; *Eng. H.R.*, pp. 768–73.

⁹ Harvey, *Trans. R.H.S.*, pp. 183–87. Interestingly, Domesday Book was used for many centuries as a proof of landholding, boundaries and ancient demesne: E.M. Hallam, *Domesday Book Through Nine Centuries* (London, 1986), pp. 37, 74–113; A.E. Nash, 'The mortality pattern of the Wiltshire lords of the manor, 1242–1377', *Southern History*, 2 (1980), p. 34.

¹⁰ J. McDonald and G.D. Snooks, 'How Artificial were the Tax Assessments of Domesday England? the Case of Essex', *Economic History Review*, 2nd. ser., 38 (1985), pp. 352–3, 371.

¹¹ Darby, *Domesday England*, pp. 4, 61 (the unexpanded form of *cotarii* appears in the original).

¹² Darby, *Domesday England*, pp. 46, 338–45.

¹³ Darby, *Domesday England*, p. 87.

¹⁴ R. Welldon Finn, *Domesday Book: A Guide* (Chichester, 1973), p. 91.

¹⁵ P.H. Sawyer, 'Medieval English Settlement: New Interpretations', in *English Medieval Settlement*, ed. P.H. Sawyer (London, 1979), pp. 2–3; on the early origins of tin mining see A.L. Poole, *From Domesday Book to Magna Carta 1087–1216* (Oxford, 2nd. edn., 1955), p. 83; on tenant omission see R. Welldon Finn, 'Wiltshire' in *The Domesday Geography of South-West England*, ed. H.C. Darby and R. Welldon Finn (Cambridge, 1967), pp. 23–6.

¹⁶ J.F.R. Walsmsley, 'The *censarii* of Burton Abbey and the Domesday population', *North Staffordshire Journal of Field Studies*, 7 (1968), pp. 73–5; P.H. Sawyer, 'The Wealth of England in the Eleventh Century', *Trans. R.H.S.*, 15 (1965), pp. 154–5.

¹⁷ The quotation is taken from an anonymously-authored description of Domesday Book which appears inside the front cover of *Domesday Book: Sussex*, ed. J. Morris (Chichester, 1976). The same mistake appears in a recent review of a biography of Maitland: N. Annan, 'The Right Historical Stuff', *The New York Review of Books* (Feb. 13, 1986), p. 31.

¹⁸ P.W. Wheatley, 'Staffordshire', in *The Domesday Geography of Midland England*, ed. H.C. Darby and I. Terret (Cambridge, 1954), p. 185; Darby, *Domesday England*, p. 92.

¹⁹ E. Miller and J. Hatcher, *Medieval England: Rural Society and Economic Change, 1086–1348* (London, 1978), pp. 2, 28.

²⁰ Miller and Hatcher, *Medieval England*, pp. 22–4; R. Lennard, *Rural England, 1086–1135* (Oxford, 1959), pp. 351–6; Welldon Finn, *Domesday Book*, p. 66.

²¹ R.W. Eyton also argued that, because of this, Dorset's artisans were counted as villeins in Domesday Book: *A Key to Domesday: An Analysis and Digest of the Dorset Survey* (London, 1878), p. 51; Welldon Finn, *Domesday Book*, p. 37.

²² Darby, *Domesday England*, p. 71.

²³ Welldon Finn, *Domesday Book*, pp. 36–7; Lennard, *Rural England*, pp. 351–6; Miller and Hatcher, *Medieval England*, pp. 22, 23; K.P. Witney, 'The Economic Position of Husbandmen at the Time of Domesday Book: A Kentish Perspective', *Economic History Review*, 2nd. ser., 37 (1984), p. 26; C. Dyer, 'Towns and Cottages in Eleventh-Century England', in *Studies in Medieval History presented to R.H.C. Davis*, ed. H. Mayr Harting and R.I. Moore (London and Ronceverte, Virginia, 1985), pp. 93–5, 106. D. Pelteret has argued that the colibert held on average 30 acres of land, but the advantages of this were mitigated by them being less free than the *servi*: 'The *coliberti* of Domesday Book', *Studies in Medieval Culture*, 12 (1978), pp. 46–7. However, his view of their large landholding is not corroborated by other scholars.

²⁴ M.M. Postan, *The Famulus: The Estate Labourer in the Twelfth and Thirteenth Centuries* (Cambridge, 1954), p. 6; H.B. Clarke, 'Domesday Slavery (adjusted for

slaves)', *Midland History*, 1 (1972), p. 41; Welldon Finn, *Domesday Book*, p. 34; Darby, *Domesday England*, p. 72; Miller and Hatcher, *Medieval England*, p. 22; D. Pelteret, 'Slave raiding and slave trading in early England', *Anglo-Saxon England*, 9 (1981), pp. 111-12.

²⁵ Darby, *Domesday England*, pp. 72-3; the woman at Bodmin was subsequently released: M. Förster, 'Die Feilassungsurkunden des Bodmin-Evangliars' in *A Grammatical Miscellany offered to Otto Jespersen*, ed. N. Bøgholm, A. Brussendorf and C.A. Bodelsen (Copenhagen, 1930), p. 91, no. xxx.

²⁶ Welldon Finn, *Domesday Book*, p. 34.

²⁷ P. Vinogradoff, *English Society in the Eleventh Century* (Oxford, 1908), p. 463; Darby, *Domesday England*, pp. 76-7; Maitland, *Domesday Book*, p. 17; Welldon Finn, *Domesday Book*, p. 35.

²⁸ Welldon Finn, *Domesday Book*, p. 35.

²⁹ This notion is supported by a range of almost contemporaneous illustrations and literary sources: *Aelfric's Colloquy*, ed. G.N. Garmonsway (London, 2nd edn., 1947), pp. 7, 20-21, lines 26-30 (but note pp. 13-15); *The Bayeux Tapestry*, ed. N. Denny and J. Filmer-Sankey (London, 1966), plate 9 (A.H. Inman similarly interprets this scene, and refers to other medieval illustrations of two individuals working one plough: *Domesday and Feudal Statistics* (London, 1900), p. 22; I am grateful to Dr C.W.J. Withers for this reference).

³⁰ See, for example, Cumberwell or Broughton Gifford in folio 70b of Wiltshire's part of the Survey: R.R. Darlington, 'A translation of the Text of the Wiltshire Domesday' in *The Victoria County History of Wiltshire, II*, ed. R.B. Pugh and E. Critall (London, 1955); Exceat or Charlston in folio 21b of Sussex's description: *Sussex*, ed. Morris, entries 10, 29-30.

³¹ folio 260b (Stanton Lacy in Shropshire). On the translation of *servi* as 'serf' rather than 'slave', see R.H. Hilton, *The decline of serfdom in medieval England* (London, 1969), p. 14. On the translation of *ancilla*, see *Revised Medieval Latin Word List*, ed. R. Latham (Oxford, 1965), p. 20; T. Lomas, 'Land and people in south-east Durham in the Later Middle Ages' (unpub. Ph.D. thesis, Teeside Polytechnic, 1977); Darby, *Domesday England*, pp. 72-4.

³² Only 231 *ancillae* were recorded in all of Southern England (1 in Devon, 3 in Dorset, 4 in Kent and 223 in Gloucestershire, a county which apparently owes its higher numbers to an idiosyncrasy of the Commissioners in its circuit); it is worth noting that 2,147 *servi* were recorded in Gloucestershire: Darby, *Domesday England*, fig. 33 and Appendix 3.

³³ S. Reynolds, *An Introduction to the History of English Medieval Towns* (Oxford, 1977), pp. 36-7, 93, the quotation is from p. 97.

³⁴ Welldon Finn, *Domesday Book*, p. 91; Darby, *Domesday England*, pp. 73, 84, 367.

³⁵ Miller and Hatcher, *Medieval England*, p. 10.

³⁶ Darby, *Domesday England*, Appendix 3; Miller and Hatcher, *Medieval England*, p. 23.

³⁷ Darby, *Domesday England*, pp. 339-45.

³⁸ H.C. Darby, 'Domesday England', and R.A. Donkin, 'Change in the Early Middle Ages', in *A New Historical Geography of England*, ed. H.C. Darby (Cambridge, 1973), pp. 63, 109.

³⁹ A point made by Eyton, *Key to Domesday*, p. 51.

⁴⁰ Darby, *Domesday England*, p. 81.

⁴¹ H.R. Loyn, *Anglo-Saxon England and the Norman Conquest* (London, 1962), p. 337; Darby, *Domesday England*, p. 87. The case of the *servi* has been discussed above.

⁴² F. Maitland, *Domesday*, p. 437, a figure he suggested 'for the sake of argument'.

⁴³ J.C. Russell, *British Medieval Population* (Albuquerque, 1948), p. 38; J. Krause, 'The medieval household, large or small?', *Econ. Hist. Rev.*, 2nd. ser., IX (1956), pp. 420-32; Welldon Finn, 'Wiltshire' in *Domesday Geography*, p. 23; Darby, *Domesday England*, pp. 88-9; Miller and Hatcher, *Medieval England*, p. 29.

⁴⁴ H.E. Hallam, 'Some thirteenth-century censuses', *Econ. Hist. Rev.*, 2nd. ser., X (1957-8), pp. 340-1; 'Population Density in Medieval Fenland', *Econ. Hist. Rev.*, 2nd. ser., XIV (1961-2), pp. 71-80.

⁴⁵ Inman, *Domesday*, p. 115; R.T. Davies, *A Sketch of Civilisation in Medieval England* (London, 1924), pp. 2-3; M.M. Postan, 'Medieval Agrarian Society in its Prime - England', in *The Agrarian Life of the Middle Ages*, vol. I of the *Cambridge Economic History of Europe*, 2nd. edn., ed. M.M. Postan (Cambridge, 1966), pp. 561-3.

⁴⁶ Walmsley, *N. Staffs. J. Field Stud.*, p. 79.

⁴⁷ M. Havinden, *The Somerset Landscape* (London, 1981), p. 100; S. Harvey, 'Evidence for Settlement Study: Domesday Book', in *English Medieval Settlement*, ed. P.H. Sawyer (London, 1979), pp. 195-6; R.A. Dodgshon, 'The Early Middle Ages, 1066-1350', in *An Historical Geography of England and Wales*, ed. R.A. Dodgshon and R.A. Butlin (London, 1978), p. 84.

⁴⁸ Walmsley, *N. Staffs. J. of Field Stud.*, pp. 73-5, 79; Sawyer, *Trans. R.H.S.*, pp. 154-5.

⁴⁹ R.M. Smith, 'English peasant life cycles and socio-economic networks' (unpub. Ph.D. thesis, Cambridge Univ., 1975), p. 119. Indeed, this evidence is also supported by general theories of peasant economy. See, A. Chayanov, *The Theory of Peasant Economy*, ed. D. Thorner, et al. (Homewood, 1966), pp. 53-89; R.M. Smith, 'Some issues concerning families and their property in rural England 1250-1800', in *Land, Kinship and Life-cycle*, ed. R.M. Smith (Cambridge, 1984), p. 11.

⁵⁰ Z. Razi, *Life, Marriage and Death in a Medieval Parish: Economy, Society and Demography in Halesowen 1270-1400* (Cambridge, 1980), p. 86.

⁵¹ Razi, *Life*, p. 85: the figures used here have been derived from the number of offspring given in Razi's 'Figure 7', and have been adjusted to include parents; his definitions for the size of the peasant landholding categories used are to be found on pp. 76, 78 and 79.

⁵² E. Dewindt, *Land and people in Holywell-cum-Needingworth* (Toronto, 1972).

⁵³ Welldon Finn, *Domesday Book*, pp. 33-47.

⁵⁴ This is based on the assumption that such individuals were villeins or had access to an equivalent level of resources. On this point, see: Eyton, *A Key to Domesday*, p. 51; Welldon Finn, *Domesday Book*, p. 37; Clarke, *Mid. Hist.*, p. 41, footnote 20.

⁵⁵ This, and areas where bordars and cottars formed over 30% of recorded population, is clearly shown in Dodgshon, 'The Early Middle Ages', p. 84, Figure 4.2.

⁵⁶ A.E. Nash, 'Population Change in Late Medieval Wiltshire' (unpub. Ph.D. thesis, Cambridge Univ., 1984), pp. 181-4; Darby, *Domesday England*, p. 228.

⁵⁷ P.H. Sawyer, 'The Domesday Geography of South-east England', *Econ. Hist. Rev.*, 2nd. ser., XVI (1963), p. 155.

⁵⁸ M.M. Postan, 'Village livestock in the Thirteenth Century', *Econ. Hist. Rev.*, 2nd. ser., XV (1962), p. 244; see also E. Power, *The Wool Trade in English Medieval History* (Oxford, 1941) pp. 30-1 (some of her figures disagree with Postan, p. 230).

⁵⁹ Postan, *Econ. Hist. Rev.*, p. 245.

⁶⁰ Power, *Wool Trade*; Donkin, 'Changes', pp. 97, 112-4; Miller and Hatcher, *Medieval England*, pp. 225-6; J.L. Bolton, *The Medieval English Economy, 1150-1500* (London, 1980), pp. 174-6, and esp. p. 177.

⁶¹ Nash, 'Population Change', p. 122 and Table A1.8, pp. 511, 513. Dyer has recently argued that Domesday's urban population represented 10% of the total population: 'Towns and Cottages', pp. 92, 102.

⁶² Darby, *Domesday England*, p. 89.

⁶³ M.M. Postan, *The Medieval Economy and Society* (London, 1972; republished 1975), p. 33; Miller and Hatcher, *Medieval England*, p. 29.

⁶⁴ Postan, *Medieval Economy*, p. 31; Havinden, *Somerset*, p. 103.

⁶⁵ Data for tenants-in-chief and under-tenants are derived from Inman, *Domesday*, p. 3. Data for burgesses have been estimated on a *pro rata* basis, from data given in Darby, *Domesday England*, p. 89; it can only be an approximation, given the lack of evidence, and is likely to be an underestimate given the higher numbers of boroughs in the South: Darby, 'Domesday England', p. 68.

⁶⁶ P. Salway, *Roman Britain* (Oxford, 1981), p. 542. This view should be contrasted with those contained in: M.M. Postan, *The Medieval Economy and Society* (London, 1972; republished 1975), pp. 31–2; Miller and Hatcher, *Medieval England*, p. 29.

⁶⁷ Darby, *Domesday England*, p. 91. For differing views of the national total see: Maitland, *Domesday Book*, p. 437; Poole, *From Domesday*, p. 36; Russell, *British Medieval Population*, p. 54; J. Hatcher, *Plague, Population and the English Economy 1348–1530* (London, 1977), p. 68; Postan, *Medieval Economy*, pp. 31–2.

⁶⁸ Salway, *Roman Britain*, pp. 544–9; Hatcher, *Plague*, p. 72.

⁶⁹ Havinden, *Somerset*, p. 101.

⁷⁰ Nash, 'Population Change', p. 326.

⁷¹ S. Piggott, 'The first agricultural communities', *The Victoria County History of Wiltshire, I, Part 2*, (London, 1973), pp. 284–8; B. Cunliffe, 'Saxon Sussex: Some problems and directions', in *The South Saxons*, ed. P. Brandon (Chichester, 1978), p. 225.

⁷² Postan, *Medieval Economy*, p. 34.

⁷³ Havinden, *Somerset*, p. 97.