OCCUPATIONAL AND GEOGRAPHICAL STABILITY IN THE REGION OF SITTINGBOURNE, KENT, 1881–1891

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Introduction

This article presents the results of a study of occupational and geographical mobility in the region of Sittingbourne, Kent, in the period 1881–1891. The study is based on the census enumerators' books (CEBs) for 1891 and the transcript of the 1881 CEBs for the whole of Great Britain, distributed on CD-ROM by the Church of Jesus Christ of Latter Day Saints (LDS CD).[1] Studies of migration based on CEBs often use distance of birthplace from the place of enumeration as an indication of distance migrated.[2] While this distance is a valid measure of net lifetime migration, it gives no indication of distance or direction of migration over shorter periods, and at particular stages of the life cycle. Lifetime migration can be meaningfully considered as the end-result of a number of components related to the stage of the life-cycle. These components fall into four general categories: first, childhood migration – while a person is dependent on and living with his/her parents and migration is beyond his/her control; second, pre-marital migration – while a person is not living with or dependent on his/her parents, but is not yet a husband or wife and does not have the responsibility of supporting or caring for a family; third, family migration – a husband or wife has responsibility for supporting and caring for a family; and fourth, post-family migration – the children have left home and the individual's partner may have died. Overlap exists between these categories, and some individuals may not experience all categories. Notably, family migration of parents also involves the childhood migration of their children, and offspring who marry while living in the family home will not experience the pre-marital stage.

The object of this study is to investigate the occupational and geographical stability of male household heads – that is, the third type mentioned above – over the period 1881–1891. This stage of the life cycle was selected because identification of heads in the two censuses was facilitated by the presence of a wife and, in many cases, co-resident children. Birthplaces of co-resident children are often used as an indication of the place of residence of the family at the time of birth of the child.[3] Valuable as this marker is, it is only applicable

Table 1 Populations of individual parishes, 1881 and 1891

Parish	Population		
	1881	1891	% increase
Bobbing	471	435	-7.6
Borden	1,263	1,351	7.0
Milton	4,219	5,213	23.6
Murston	878	908	3.4
Sittingbourne	7,856	8,302	5.7
Tunstall	269	243	-9.7
Total	14,956	16,452	10.0

Source: 1891 Census of Great Britain, vol II, BPP 1893–4, CV, 66–67

to families with co-resident children and strictly relates only to the mother, who may not have been at her normal residence at the time of the birth. The LDS CD was considered to be a useful tool to enable identification of families at the time of the 1881 census. Families consisting of at least husband and wife were identified in the 1891 CEBs for an area in north Kent, and the entry for the head replicated in a database. Where possible, the same families were identified in the LDS CD, and the 1881 data for the head was imported into the database holding the details of heads from the 1891 CEBs.

The study area

The area studied comprised six parishes in north Kent and will be referred to as Sittingbourne or 'the study area'. These parishes were Bobbing, Borden, Milton next Sittingbourne (also known as Milton in Milton and as Milton Regis), Murston, Sittingbourne and Tunstall. Table 1 shows that the total population of these parishes was 14,956 in 1881 and 16,452 in 1891.[4] The study area measured six square kilometres, with part of its northern extremity bordering the Swale (the stretch of sea separating the Isle of Sheppey from mainland Kent). The A2, London to Dover Road, runs through the area from east to west, and the A249 Maidstone to Sheerness road runs along the western edge. The population of the area included workers engaged in a range of agricultural and non-agricultural occupations, as shown in Table 2. Main occupations included in each class are listed in Appendix 1 (p.71, below). In 1903 wheat, barley, oats, hops, mangold and fruit were the main crops of the rural parishes of Bobbing, Borden and Tunstall. For Sittingbourne and Milton, trade was derived chiefly from manufacture and transit of bricks and cement, the market, supply of the neighbouring district, shipping of corn and import

Table 2 Industrial classes of all male heads in the study area, 1881 and 1891

	1881		1891		Increase	
	Number	%	Number	%	Number	%
Agriculture	353	14.8	402	14.1	49	13.9
Brick and cement making	679	28.4	679	23.7	0	0.0
Building	146	6.1	226	7.9	80	54.8
Manufacture	389	16.3	507	17.7	118	30.3
Transport	176	7.4	229	8.0	53	30.1
Dealing	241	10.1	292	10.2	51	21.2
Industrial service	230	9.6	287	10.0	57	24.8
Public service/ professional	69	2.9	107	3.7	38	55.1
Domestic service	42	1.8	54	1.9	12	28.6
Indefinite	6	0.3	5	0.2	-1	-16.7
Residual	60	2.5	73	2.6	13	21.7
Total	2,391	100.0	2,861	100.0	470	19.7

Note : Calculated from 1881 and 1891 census data using a classification scheme based on that of Armstrong (see text)

of coals. Corn mills and paper mills are also mentioned, as is a tanyard. Murston was noted for manufacture of bricks and cement, a gas works, and a ship and boat-building yard.[5] The study area lies at the northern extremity of the dip slope of the North Downs, a region described as 'truly the garden of England', bearing grain crops, fruit, hops and dairy cattle.[6] Brick earth was present in the northern part of the area.

Methods

Entries for married male household heads in the 1891 CEBs were copied into a computer database. The LDS CD was searched for the same people but only if they and their wives were both over 26 years old at the 1891 census. This age restriction was applied because it was considered very unlikely that people aged under 26 years would have been married in 1881. It was also decided to study only those families in which widowhood or remarriage did not appear to have occurred between 1881 and 1891, and in which the male head had a

currently co-resident wife. Heads who had experienced widowhood or remarriage were excluded in order to restrict the study to a uniform group (that is, those who had spent the decade 1881–1891 in one marriage). Totally reliable criteria for identifying men who had been widowed and remarried during the decade 1881–1891 were difficult to devise. If the wife's forename differed at the two censuses, or if a family contained children with different surnames in 1891, the family was not included in the study. However, it is accepted that in a small number of instances a man's second wife will have the same forename as his first wife, and that children born to her before her current marriage will have assumed the surname of their step-father. Such cases will not be apparent as remarriages in the CEBs, and the heads will be included in the study. However, the numbers involved are likely to be small, and will not affect the validity of the conclusions.

Map references of 1881 residences were obtained from a historical and genealogical mapping system and an Ordnance Survey Atlas.[7] Distances were calculated by use of a spreadsheet, applying Pythagoras' theorem to the British National Grid.

When a head in the 1891 census was tentatively identified in 1881, the decision as to whether to include him in the study was based on the following guidelines. It must be stressed that flexibility was maintained, and each head was the subject of an individual decision as to inclusion or exclusion. The guidelines were used for guidance only, and discretion was exercised.[8]

Surnames of husband and wife were required to be the same at both censuses (trivial spelling differences were ignored). If this was so, conditions one to five below were applied.

1. If birthplaces of husband and wife were the same in both censuses, and the birth year of each partner calculated from the 1881 census differed by no more than three years from that calculated from the 1891 census, the head was included in the study.

2 Heads were accepted if birth year discrepancies of up to six years of either partner were present, provided that the same co-resident child was identified living with the parents at both censuses.

3. Stated birthplaces sometimes varied between the two censuses. In deciding whether or not to include heads in the study, consideration was given to the likelihood of the two birthplace entries referring to the same place. If the parishes were nearby or adjacent, or if one birthplace was an area containing the birthplace given at the other census, the head was accepted. For more distant parishes, greater discrepancy between the two parishes was accepted, as it is considered likely that the enumerator and the enumerated person would consider precise location of a distant birthplace less important than that of a nearby one. The presence of the same co-resident child at both censuses was taken to support the view that two families were one and the same.

4. Wider variations in birthplace or birth year were accepted if the family dwelt at the same address at both censuses. This is illustrated by the case of William Ostler (or Hosler), who was living at 125 Church Road in 1881 and 1891 with his wife, but with no co-resident children. This case also demonstrates the potential problem arising with variations in surname spelling. In 1881 William's surname was Ostler, his age was given as 30 years old, and his birthplace as London, Surrey. His wife was Jane Ostler, aged 38 years and born at New Kent Road, Surrey. In 1891, William Hosler, aged 58 years and born in Essex, was resident at the same address with his wife Jane, who was 45 years old and born in London. If the guidelines had been applied without knowledge of the place of residence at both censuses, the family would not have been identified.

5. If one or both partners had a missing birthplace at one census, the head was included if other criteria suggested that he should be.

A number of heads (mainly mariners) found to be living with their families in 1891 were tentatively identified in 1881 living away from their families or as visitors in other households. Even in cases where the family was identified without the head in 1881, these heads were excluded from the study. It was considered necessary to have the strong link of co-habitation positively to link heads across the two censuses.

Occupations were classified according to a schema based on that of Armstrong, which bases industrial classification on Booth's schema developed in the 1880s.[9] Details of occupations were obtained from *Lloyd's encyclopaedic dictionary* and a dictionary of occupational terms.[10] The main occupations included in each industrial class in the present study are listed in Appendix I (p. 71, below). Social class was based on the Registrar General's classification, as modified by Armstrong.[11] In the present work, individuals were classified by social class, as the census data was not considered sufficiently precise to allow meaningful classification by socio-economic group. The limitations of the CEBs were recognized in the census report.[12] These limitations included lack of precision in the householders' answers to the questions asked, and the difficulties of distinguishing manufacturers from dealers and masters from men.

Results

The population of each parish in the study area in 1881 and 1891 is given in Table 1 (p. 54, above). The total population increased by 10.0 per cent over the decade. The rural parishes of Tunstall and Bobbing decreased by 9.7 per cent and 7.6 per cent respectively. The industrial parish of Milton showed the greatest increase (23.6 per cent), while the urban parish of Sittingbourne, the industrial parish of Murston and the rural parish of Borden showed increases of between 3.4 per cent and 7.0 per cent. The national increase for the decennium 1881–1891 was 11.7 per cent and the increase for Kent was 13.7 per cent.[13]

Table 3 Reasons for exclusion of male heads from analysis

Reason	Number
Widower in 1881	21
Unmarried in 1881	431
Remarried	50
Not with family in 1881	88
Not looked for in 1881	604
Not found in 1881	212
Total excluded	1,406

Source: See text

In the study area 3,377 households were identified in 1891, of which 2,861 had male heads. Of these households with male heads, 1,406 were excluded from the analysis. The reasons for exclusion are shown in Table 3. The 604 heads not looked for in 1881 consisted of those male heads who were either never-married or widowed in 1891, or who were aged less than 26 years in 1891, or whose wives were under 26 in 1891.

Of the remaining 2,257 who were looked for, 212 (9 per cent) were not found. Of these, 48 per cent were aged 26–35 years in 1891 and a further 30 per cent were aged between 36 and 45 years. The reason for the failure to find these 212 heads in 1881 is therefore attributed to the fact that as they were young, many had never married and could not be identified with certainty from the data available from the 1881 census, as the requirement for a co-resident wife was not satisfied. Other suggested reasons for failure to find individuals in 1881 include variations in spelling of names, wide discrepancies in stated ages and birthplaces, use of aliases, errors in transcription (by enumerator or LDS transcriber) and failure of householders to complete a census schedule. The number of 1891 male heads included in the study was 1,455 (2,861 total male heads minus 1,406 exclusions) which represents 50.8 per cent of the total number of male heads present in the study area in 1891.

Occupations of heads in 1881 and 1891

Table 4 compares the numbers and percentages in each industrial class for 1891 heads included in the study (1,455) and for the total number of male heads (2,861). Percentage differences between the two groups are less than one, with the exception of agriculture and transport, which showed differences of 2.5 per cent and 2.6 per cent respectively. This finding demonstrates that the occupational distribution of heads selected for inclusion in the study was broadly similar to that of all male household heads in the study area.

Table 4 Comparison of 1891 total male heads with heads included in the study

	Included		Total	
	Number	%	Number	%
Agriculture	241	16.6	402	14.1
Brick and cement making	350	24.1	679	23.7
Building	114	7.8	226	7.9
Manufacture	257	17.7	507	17.7
Transport	79	5.4	229	8.0
Dealing	160	11.0	292	10.2
Industrial service	146	10.0	287	10.0
Public service/professional	43	3.0	107	3.7
Domestic service	27	1.9	54	1.9
Indefinite	2	0.1	5	0.2
Residual	36	2.5	73	2.6
Total	1,455	100.0	2,861	100.0

Note : Calculated from 1881 and 1891 census data using a classification scheme based on that of Armstrong (see text)

Table 2 (p. 55, above) compared the industrial classes of all heads in the study area in 1881 and 1891, both as absolute numbers and percentages. Percentages in most classes varied little between the two censuses. However, there was a notable reduction in the percentage of heads involved in brick and cement making, but the absolute number of heads in this group was unchanged. Increases greater than one per cent were seen in building (1.8 per cent) and in manufacture (1.4 per cent). The last two columns of this table show the increase in numbers between 1881 and 1891 and the percentage increases in the period 1881–1891.

Distances migrated 1881–1891

Table 5 shows that almost 80 per cent of 1891 heads included in the study were resident in the study area in 1881. Of the remainder over 70 per cent had migrated less than 40 kilometres since 1881. Table 6 shows distances migrated between 1881 and 1891 for all industrial classes. The shortcomings of net lifetime migration (that is, migration which only takes account of birthplace and current place of residence) are well illustrated by the example of Warren

Table 5 Distances migrated 1881 – 1891

Distance	Number	%
0km	1,159	79.7
1–10km	84	5.8
11–40km	126	8.7
41–100km	65	4.5
101–200km	8	0.5
>200km	13	0.9
Total	1,455	100.0

Sources: 1891 CEBs, Public Record Office, London, RG12/716.
National index to 1881 British Census and 1881 British census Church of Jesus Christ of Latter Day Saints (CD-ROM)(1999)

Table 6 Geographical mobility of household heads by industrial class (per cent)

	0km	1–10km	11–40km	41–100km	101–200km	>200 km	Total %	No.
Agriculture	76.3	10.8	11.2	1.2	0.0	0.4	100	241
Brickmaking	89.5	4.1	3.5	2.9	0.0	0.0	100	314
Cement making	94.4	2.8	2.8	0.0	0.0	0.0	100	36
Building	80.7	8.8	7.0	3.5	0.0	0.0	100	114
Manufacture	71.2	3.9	13.6	5.8	2.7	2.7	100	257
Transport	81.0	5.1	7.6	5.1	0.0	1.3	100	79
Dealing	74.4	5.0	9.4	10.0	0.6	0.7	100	160
Industrial service	87.0	6.2	4.8	2.1	0.0	0.0	100	146
Public service/professional	74.4	0.0	9.3	9.3	0.0	7.0	100	43
Domestic service	63.0	3.7	22.2	11.1	0.0	0.0	100	27
Indefinite	0.0	50.0	0.0	50.0	0.0	0.0	100	2
Residual	72.2	2.8	16.7	8.3	0.0	0.0	100	36

Sources: 1891 CEBs, Public Record Office, London, RG12/716. National index to 1881 British census Church of Jesus Christ of Latter Day Saints (CD-ROM) (1999)

Budds, a tallowchandler aged 34 and resident in Milton in 1891. He was born in Milton, and his wife was born in Folkestone, as was their 12 year-old daughter. Folkestone is 42 kilometres from Milton, approximately to the south east. Their next two children were born at Sheerness, 12 kilometres north of Milton, and a fourth child was born at Folkestone. Two further children were born at Milton. Warren Budds clearly migrated more frequently than consideration of his residence in 1891 and his birthplace would suggest.

Occupational stability of all linked heads 1881–1891

As Table 4 showed, 24.1 per cent of included heads were engaged in brick and cement making in 1891. The next commonest class was manufacture (17.7 per cent), closely followed by agriculture (16.6 per cent). Public service/ professional and domestic service were the only classes in which less than 5 per cent of included heads were engaged. Table 7 shows occupational stability between 1881 and 1891, as percentage values, for all industrial classes. Attention will be focussed on the six industrial classes with more than 100 members at the 1891 census.

Agriculture

Table 7 illustrates that of 241 heads engaged in agriculture at the time of the 1891 census, 72.6 per cent were similarly engaged in 1881. A further 7.5 per cent were engaged in brickmaking and 6.6 per cent in industrial service in 1881. Table 6 shows that 76.3 per cent of heads engaged in agricultural work in 1891 were resident in the study area in 1881. The number of agricultural workers in the study area increased by almost 14 per cent in the period studied (see Table 2, p. 55, above), despite the agricultural depression which had severe effects on Kent as a whole in the late-nineteenth century.[14]

In Figure 1 the 1881 distribution of heads who were engaged in agriculture in 1891 and who migrated into the study area between 1881 and 1891 is shown. These individuals came predominantly from the region to the south of Sittingbourne. Two heads do not appear on this map – one was in Middlesex and the other in Yorkshire in 1881. Of the 57 agricultural heads who migrated into the study area between 1881 and 1891, all but nine were involved in agriculture in 1881. Of non-migrant heads who were involved in agriculture in 1891 but not in 1881, 36.4 per cent were involved in brickmaking or cement making in the earlier year, while 21.8 per cent were engaged in industrial service. The heavy physical nature and seasonal components of these occupations would have encouraged movement between them. Manufacture contributed 12.7 per cent and dealing 10.9 per cent of non-migrant heads involved in agriculture in 1891 but not in 1881.

Brick and cement making

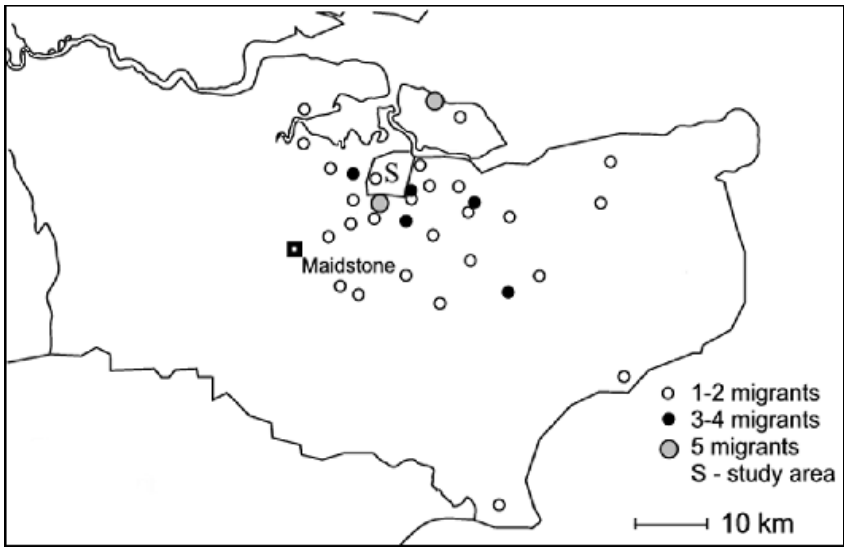
Bricks and cement were both made locally from materials dug from the earth and are therefore considered together, rather than as a branch of manufacture.

Table 7 Occupational stability of heads 1881 – 1891 (per cent)

	Ag	Br	C	Bu	M	T	De	IS	PP	DS	In	R	Total %	No.
Agriculture	**72.6**	7.5	0.8	0.8	3.7	2.9	2.9	6.6	0.0	1.7	0.0	0.4	100	241
Brickmaking	1.6	**79.6**	0.6	0.6	0.3	1.0	1.9	13.1	0.0	0.0	0.0	1.3	100	314
Cement making	2.8	8.3	**72.2**	0.0	5.6	0.0	0.0	11.1	0.0	0.0	0.0	0.0	100	36
Building	5.3	4.4	0.0	**71.1**	8.8	1.8	1.8	6.1	0.0	0.0	0.0	0.9	100	114
Manufacture	3.5	6.2	0.4	1.9	**71.2**	1.2	5.4	5.8	3.1	0.0	0.4	0.8	100	257
Transport	5.1	13.9	0.0	2.5	2.5	**62.0**	7.6	5.1	0.0	1.3	0.0	0.0	100	79
Dealing	7.5	10.6	0.0	0.6	7.5	3.8	**60.6**	4.4	1.3	2.5	0.0	1.3	100	160
Industrial service	13.7	32.2	4.1	0.0	9.6	4.8	4.8	**28.1**	0.7	1.4	0.7	0.0	100	146
Public service/professional	2.3	2.3	0.0	2.3	4.7	0.0	9.3	4.7	**69.8**	0.0	2.3	2.3	100	43
Domestic service	25.9	0.0	3.7	3.7	3.7	7.4	0.0	3.7	0.0	**51.9**	0.0	0.0	100	27
Indefinite	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	100	2
Residual	16.7	8.3	0.0	0.0	11.1	2.8	11.1	8.3	11.1	2.8	0.0	**27.8**	100	36

Notes: The total for each row is the total of members of the class included in the study from the 1891 CEBs. The cells represent the percentages involved in particular occupations in 1881. Calculated from 1881 and 1891 census data using a classification scheme based on

Figure 1 1881 distribution of migrant agricultural workers (Kent only)

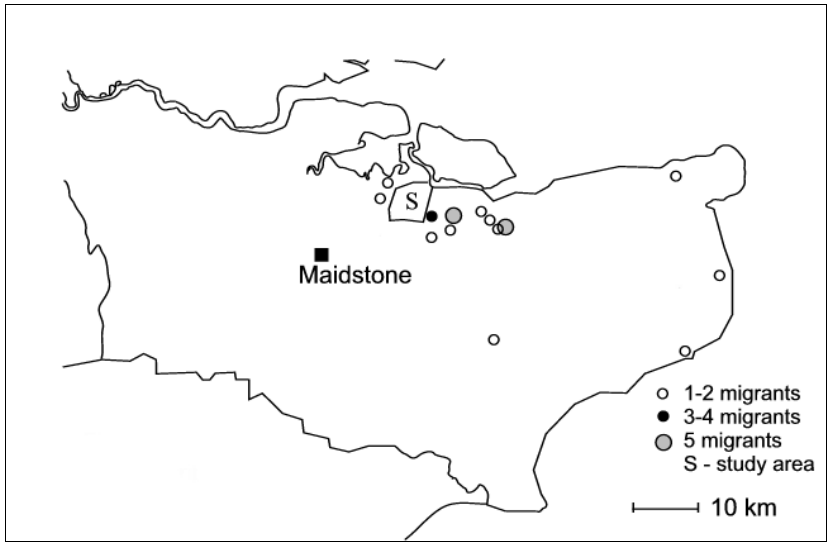


In 1891, 350 included heads (24.1 per cent) were involved in brick and cement making (see Table 4, p. 59, above). Of these 350 heads, 36 were involved in cement manufacture and the remaining 314 in brickmaking. A total of 305 heads were involved in manual occupations in the brickfields (that is, social classes 3M, 4, 5), with 273 (89.5 per cent) of them resident in the study area in 1881. It is probable that some of the heads listed under industrial service were also involved in unskilled work in the brickfields. Social class 2 included eight men described as brick manufacturers, managers and a book-keeper. Social class 3M consisted of eight foremen and social class 3N contained a brickmaker's clerk. Social class 4 held 48 workers whose occupations were specifically associated with brickmaking, such as brickmaker, sorter, and moulder. Social class 5 held 249 workers enumerated as labourers or general labourers in brickfields.

Of the nine heads who were members of social classes 2 and 3N in 1891 (that is, non-manual workers), eight were resident in the study area in 1881. The exception was resident at Stone in Dartford. It is noteworthy that his birthplace was Sittingbourne. In the decade 1881–1891 two foremen made the transition from the manual to the non-manual group, describing themselves in 1891 as a clerk and brickfield manager respectively. The latter was the migrant from Stone in Dartford.

Figure 2 shows the 1881 residences of heads involved in brickmaking in 1891. These men clearly came from the region of the north Kent brickfields, and provide a contrast with the migrant agricultural workers. Table 7 indicates

Figure 2 1881 distribution of migrant brickworkers (Kent only)



that almost 80 per cent of 1891 brickworkers were involved in brickmaking in 1881, and Table 6 shows that almost 90 per cent were present in the study area. Thirty-two heads who were involved in brickmaking in 1891 were resident outside the study area in 1881. Only six of these were not involved in brickmaking in 1881. It is apparent that the great majority of 1891 brickfield workers were engaged in similar work in 1881, and were located in the north Kent brickfields.

According to Twist, Perks and Bellingham, houses for brickworkers were built by the large brickmaking company of George Smeed, which later became Smeed-Dean, at Murston in the area of Murston Road, Gas Road, George Street and Malcomb Place.[15] A comparison was made of heads in these areas in 1881 and 1891. Eighty-seven heads living in these streets were included in the study. Of these, 40 (46.0 per cent) were living in the same houses in 1881 and 1891.[16] A randomly selected block of 87 heads of varying occupations, including labourers of various types, in the Park Road area of Sittingbourne showed 18 (20.7 per cent) at the same residence in 1881 and 1891. The high residential persistence of occupants of houses built by the large brickmaking company for its employees is obvious when compared to occupants, engaged in various occupations, of other houses not built for brickfield workers. Other factors may well have influenced residential persistence of brickfield workers, but there can be little doubt that provision of housing was an important factor.

There was a strong seasonal element to brickmaking. According to Twist, skilled men worked all year round. In winter they dug the clay and chalk,

screened refuse for fuel and prepared the kerfs (piles of clay mixed with carefully controlled proportions of chalk and ash) for the next season's work. Making the green (unfired) bricks lasted from March until the end of September, with work for some men in the kilns lasting until December. The peak time for employment in brickmaking, therefore, coincided with the peak time for employment in agriculture, so in an area offering employment in agriculture and brickmaking the summer would have provided excellent opportunities. For most families the outlook in winter would have been more bleak.

It is apparent that there was great residential and occupational stability among brickworkers. Reasons for this include the high demand for bricks, the provision of accommodation by brickmakers Smeed-Dean and the necessity for brickworkers to live close to the brickfields. Twist relates that in the 1870s 'brickies' would work from 3am to 10am and, if they were not too drunk, from 4pm to 7 or 8pm, thus resting during the heat of mid-day. The same author states that demand for bricks was created by the expansion of housing, factories, schools, docks and London's Underground Railway.[17] A brochure produced for the visit of the Duke of York to Sittingbourne in 1921 lists the Law Courts, Tower Bridge, King's Cross Station, Westminster Cathedral and Buckingham Palace as buildings built in part with Smeed-Dean Bricks.[18] The success of the brickfields in the Sittingbourne area resulted from the deposits of brick-earth in the region, and the availability of inexpensive transport by barge to London, which was rapidly expanding in the nineteenth century. Kentish stock bricks required large amounts of household refuse and ash for burning, and this was also available from London. Barges made the trip from the Sittingbourne area to London and back, carrying bricks in one direction and household rubbish in the other. Useful articles found in the rubbish were claimed by brickfield workers.[19]

Building

Table 7 shows that over 71 per cent of heads involved in building in 1891 had been in building in 1881, with the largest contribution from other classes coming from manufacture. Table 6 shows that over 80 per cent of the 114 heads who were engaged in building in 1881 were resident in the study area in 1881 and less than 9 per cent migrated more than ten kilometres in the previous ten years. These migrant builders did not come from distinct areas. The 10 per cent increase in the population of the study area in the decade from 1881–1891 suggests a need for more housing. Twenty-two heads (almost 20 per cent) involved in building in 1891 had migrated into the study area since the previous census. Nine of these were also involved in building in 1881, and one was described as an unemployed joiner. Of the remainder, six were farm or general labourers. One man was a wheelwright in 1881 and a carpenter in 1891. The remaining five were distributed across different occupations.

Table 8 Occupations of heads engaged in manufactures, 1891

Group	Number	%
Shipbuilding	25	9.7
Iron and steel	27	10.5
Carriage and harness	14	5.4
Paper	51	19.8
Dress	20	7.8
Food and drink	33	12.8
Others (each<5%)	52	20.2
Unspecified	35	13.6
Total	257	100.0

Note: Calculated from 1891 census data using a classification scheme based on that of Armstrong (see text)

Manufacture

Of 257 heads involved in manufacture in 1891, 71.2 per cent were present in the study area in 1881 (Table 6). The major contributions of 'new' heads involved in manufacture in 1891 came from brickmaking, industrial service and dealing (Table 7). As Table 8 shows, 19.8 per cent of manufacturing heads were involved in the manufacture of paper. The next largest category was food and drink (12.8 per cent). Fourteen (42.4 per cent) non-migrant heads involved in papermaking were similarly involved in 1881, and brickmakers were the main source of non-migratory new papermakers (24.2 per cent). A far higher percentage of migratory new papermakers (61.1 per cent, a total of 11) were neither brickmakers nor papermakers in 1881. Six members of this group (54 per cent) were labourers in 1881, and a seventh was a grocer's porter. This observation suggests that papermaking attracted unskilled labour. The other four members of the group were an engine driver, an advertisement manager, a grocer and postmaster, and an army drummer. Of the remaining migratory papermakers, 27.8 per cent were involved in papermaking in 1881 and 11.1 per cent were in the brickmaking industry. According to the 1891 census report, the number of people involved in papermaking in Kent (3,182) was second only to the number in Lancashire (4,902).[20] Table 9 shows the migration distances of heads involved in papermaking in 1891.

Dealing

Table 6 shows that of 160 heads involved in dealing in 1891, over 74 per cent

Table 9 1881–1891 migration distances of heads involved in papermaking in 1891

	Number	%
0 km	33	64.7
1-10 km	2	3.9
11-40 km	5	9.8
41-100 km	6	11.8
100-200 km	2	3.9
>200 km	3	5.9
Total	51	100.0

Note: Calculated from 1881 and 1891 census data

Table 10 1881 occupations of heads involved in dealing in 1891

	Non-migrants		Migrants	
	Total	%	Total	%
Agriculture	2	1.7	10	24.4
Bricks and cement	16	13.4	1	2.4
Building	0	0.0	1	2.4
Manufacture	8	6.7	4	9.8
Transport	3	2.5	3	7.3
Dealing	81	68.1	16	39.0
Industrial service	5	4.2	2	4.9
Public service/professional	2	1.7	0	0.0
Domestic service	1	0.8	3	7.3
Indefinite	0	0.0	0	0.0
Residual	1	0.8	1	2.4
Total	119	100.0	41	100.0

Note: Calculated from 1881 and 1891 census data using a classification scheme based on that of Armstrong (see text)

were resident in the study area in 1881, with very few of the remainder migrating more than 100 kilometres. Table 7 shows that over 60 per cent of dealers in 1891 had been dealing ten years previously, and that most 'new' dealers in 1891 had been in agriculture, brickmaking or manufacture in 1881. Table 10 shows that more non-migrant 'new' dealers had been involved in brick and cement making than in any other class in 1881 and more migrant 'new' dealers had been involved in agriculture. The large contribution from brick and agricultural workers is not unexpected in view of the large number of agricultural and brick workers in the population, but the extremely hard physical nature of these two types of work and their seasonal nature must have induced agricultural and brickfield workers to try other, less physically demanding, forms of supplementary or alternative employment. Examination of the ages of agricultural and brickfield workers who moved to dealing shows that 44.8 per cent were aged between 41 and 50 years in 1891. The remaining 55.2 per cent were equally divided between those aged 31 to 40 and those aged over 50. This age distribution shows that it was not predominantly older men that made the move. Movement from dealing in 1881 to agriculture in 1891 also occurred, with six non-migrant heads making this move.

Heads listed as manufacturers in 1881 contributed significantly to the class of dealers in 1891. Those who made the move from manufacture to dealing included a wheelwright, a stoker, a brewer's drayman, and a sawyer, all of whom went into innkeeping. In addition, a ship's carpenter became a coffee tavern manager and a blacksmith became a beer retailer and blacksmith. No patterns were evident among the other six individuals who moved from manufacture to dealing.

Dealers who were not resident in the study area in 1881 were distributed thinly over a wide area. In addition to the migrant dealers from Kent, one came from Essex, one from Hampshire, one from Lancashire, two from Hertfordshire, two from Surrey, four from Sussex and five from Middlesex. Almost 40 per cent of these dealers were dealing at both censuses.

Industrial service

This group comprised individuals described as labourers or general labourers and six men involved in work on telegraph systems. Heads in this group showed little geographical mobility (see Table 6, p. 60, above), with 87 per cent of the 1891 total of 146 being found in the study area in 1881. Table 7 shows that only 28 per cent of heads involved in industrial service in 1891 had been similarly engaged in 1881, with most of the 'new' heads being engaged in brickmaking in the former year. When considering this group it is important to bear in mind that its size can be influenced by the precision of enumeration. A labourer or general labourer may have worked in agriculture, a brickfield or elsewhere, so the term 'nebulous' to describe general labourers is justified.[21] Of the six men involved in telegraph work in 1891, three were similarly engaged in 1881. The other three were a railway servant, a shipwright and a brickfield labourer. All six were enumerated in the study area in 1881.

Conclusions

Geographical stability of the sample group of married male heads of household was marked. Brickmakers (with cement makers) exhibited the highest degree of geographical stability (approximately 90 per cent). Industrial service and building workers showed rates in excess of 80 per cent. Agricultural workers, dealers and manufacturing workers, together with the public service/professional group, showed rates in excess of 70 per cent.

Occupational stability among this sample group varied widely. The rate for brickmakers was almost 80 per cent. Agricultural workers, building workers and cement manufacturing workers showed rates of about 70 per cent, while the rate for industrial service was 28 per cent. Those men enumerated as labourers or general labourers were assigned to the industrial service class. Many of them could no doubt be assigned to other classes (such as brickmaking or agriculture) if more detail had been provided by the CEBs, while others probably moved between various casual jobs and could not be precisely classified. In this study, only labourers assigned in the CEBs to a particular class were included in that class. Any attempt to assign (general) labourers to a particular class would have been highly speculative. In the social class schema adopted, agricultural workers were placed in class IV, and other labourers in class V. This approach recognises the skills of agricultural labourers, but could lead to mis-classification of a small number of agricultural labourers who were enumerated simply as labourers. It was considered preferable to analyse the data as presented, but this shortcoming should be borne in mind.

The stability (geographical and occupational) of brickmakers is associated with the flourishing brickfields, particularly those of Smeed-Dean at Murston. The provision of housing for workers was an incentive to stay, as was the opportunity of work for all members of the family.[22] The static nature of the total number of heads involved in brick and cement making in 1881 and 1891 was probably a result of the London building cycle and competition from other brickfields, producing cheaper but inferior products.[23] The prolonged frost of 1891, which hindered building work and consequently reduced the demand for bricks, may have reduced demand for bricks as late as April 1891, when the census was taken, as builders could have been using stockpiled bricks.[24] However, the effects of the frost are likely to have been more direct, with workers unable to prepare the kerfs (piles of brick-earth) during the winter and otherwise make ready for the brickmaking season. Longer term effects on employment in the brickfields arose from domestic and foreign competition, notably from Cowley in Oxfordshire, Fletton in Huntingdonshire, and from Belgium.[25] The brickfields had a strong influence on the employment of men engaged in occupations that would not be immediately identified as part of the brick industry. Twist states that Smeed-Dean brickfields were run as far as possible as self-sufficient enterprises.[26] Consequently, men described in the CEBs as blacksmiths,

carpenters, wheelwrights, bricklayers, plumbers and painters could well have been employed by brick manufacturers.

Agricultural workers showed geographical and occupational stability in excess of 70 per cent, and an overall increase in numbers of almost 14 per cent. This indicates that, despite the agricultural depression taking place in the last quarter of the nineteenth century, agriculture in the area was able to retain workers.[27] This can be attributed, at least in part, to the fertile soil, the presence of the railway, and barge links to London. The proportion of building workers increased by more than 50 per cent between 1881 and 1891, consistent with the increasing population of the area. The national increase in the building trades between 1881 and 1891 was 2.1 per cent, although there was a decline in suppliers to the building industry (brick and tile makers, cement and plaster makers, slate and stone quarriers) of 1.5 per cent.[28] Geographical stability was over 80 per cent, and occupational stability was over 70 per cent.

The contributions of the 1881 agriculture and brickmaking groups to the 1891 dealing group are consistent with the effects of the agricultural depression and foreign competition, as well as with a wish to find less arduous employment. If the view is adopted that workers in industrial service were largely employed in brickmaking and agriculture, their contribution is also explained.

The industrial service group is ill-defined. It is likely to be an artefact of enumeration resulting from insufficient recording of detail. This view is supported by the high rates of interchange between industrial service and the two groups of agriculture and brickmaking. The geographical stability of industrial service workers was high, supporting the view that they did not have skills that would reward lengthy migration in search of work, and their occupational stability was low, suggesting interchange with other groups.

This article has considered only married heads of household. One would expect this group to show high levels of occupational and geographical stability, as the responsibility of supporting a family would discourage speculative moves except in adverse circumstances. It was shown that the area of Sittingbourne in the decade 1881–1891 provided a favourable environment for workers, but stability in terms of work and location varied between occupational groups.

APPENDIX 1

OCCUPATIONAL AND SOCIAL CLASSIFICATION

This schema is based on that of Armstrong (1972) (For details see text, p. 57). The following list is not exhaustive, but provides an indication of the occupations included in each class and of the diversity of occupations in the study area. Roman numerals refer to the social class, which is based on that of Armstrong (1972), and is summarised at the end of this appendix.

Agriculture

Agricultural labourer (IV)
Agricultural engine driver (IIIM)
Dairyman (IV)
Farm bailiff (II)
Farmer (II)
Fisherman (IIIM)
Fruiterer (IIIM)
Gardener (IV)
Market gardener (IIIM)
Shepherd (IV)
Veterinary surgeon (II)

Brick and cement manufacture

Book-keeper to brick company (II)
Brickfield engine stoker (IV)
Brickfield foreman (IIIM)
Brickfield labourer (V)
Brickfield manager (II)
Brick maker (IV)
Brick moulder (IV)
Brick setter (IV)
Brick sorter (IV)
Cement burner (IV)
Cement labourer (V)
Cement miller (IV)
Lime burner (IV)
Offbearer (IV)

Building

Architect (I)
Bricklayer (IIIM)
Bricklayer's labourer (V)
Builder (IIIM)
Builder's carman (IV)
Carpenter (IIIM)
Decorator (IV)
Grainer (IIIM)
House painter (IIIM
Platelayer (IV)
Plumber (IIIM)
Roadman (V)
Surveyor (I)
Thatcher (IIIM)

Manufacture

Baker (IIIM)
Basket maker (IIIM)
Bicycle maker (IIIM)
Blacksmith (IIIM)
Blacksmith's labourer (V)
Bleacher in paper mill (IIIM)
Boiler cleaner in paper mill (V)
Boiler maker (V)
Bootmaker (IIIM)
Brewer (IV)
Brewer's drayman (IV)
Cabinet maker (IIIM)
Clerk in paper mill (IIIN)
Coach builder (IIIM)
Cooper (IIIM)
Cordwainer (IIIM)
Cutter man in paper mill (IIIM)
Engineer in paper mill (IV)
Furnace stoker in paper mill (IV)
Gas stoker (IV)
Gunmaker (IIIM)
Harness maker (IIIM)
Iron moulder (IIIM)
Jam boiler (IV)
Labourer in paper mill (V)
Miller (IIIM)
Miller's carman (V)
Millwright (IIIM)
Paper maker (IIIM)
Rope maker (IV)
Sawyer (IIIM)
Shipwright (IIIM)
Tailor (IIIM)
Tanner (IIIM)
Upholsterer (IIIM)
Watchmaker (IIIM)
Wheelwright (IIIM)
Whitesmith (IIIM)

Transport

Barge captain (IIIM)
Barge loader (IV)
Carman (IV)
Carter (IV)
Coachman (IIIM)
Fly driver (IIIM)
Locomotive driver (IIIM)
Railway clerk (IIIN)
Railway porter (V)
Railway shunter (IIIM)
Railway signalman (IIIM)
Railway ticket collector (IV)
Station master (II)
Traction engine driver (IIIM)
Waterman (IIIM)
Wharf labourer (IV)

Dealing

Beer retailer (IIIN)	Bookseller (IIIN)
Butcher (IIIN	Clothier (IIIN)
Coal merchant (IIIN)	Corn merchant (IIIN)
Draper (IIIN)	Fellmonger (IIIN)
Fishmonger (IIIN)	General dealer (IIIN)
Greengrocer (IIIN)	Grocer (IIIN)
Hawker (V)	Ironmonger (IIIN
Jeweller (IIIN)	Oil and colour merchant (IIIN)
Tobacconist (IIIN)	Victualler (IIIN)

Industrial service

Labourer (general/unspecified) (V)	Telegraph labourer (V)
Telegraph linesman (IV)	

Public service/professional

Accountant (I)	Banker (I)
Bank clerk (II)	Bank manager (I)
Clergy (I)	Inspector of weights and measures (II)
Insurance agent (IIIN)	Musician (IIIN)
Physician (I)	Police (IIIN/II)
Postman (IIIM)	Postmaster (II)
Schoolmaster (II)	Soldier – other ranks (IIIM)
Solicitor (I)	Solicitor's clerk (IIIN)

Domestic service

Gardener - domestic servant) (IV)	Groom - domestic servant (IIIM)

Residual

Annuitant (0)	Landed proprietor (0)
Living on own means (0)	Pensioner (0)
Retired (0)	Unemployed (0)

Social class I	
Large proprietors	Senior professionals
Social class II	
Large farmers	Semi-professionals
Small proprietors	
Social class IIIM	
Transport workers	Small farmers
Armed forces (other ranks)	Skilled manual
Social class IIIN	
Clerical workers	Insurance agents
Musicians	Personal service (mainly shop assistants and small dealers)
Social class IV	
Agricultural workers	Semi-skilled workers
Social class V	
Building and dock labourers	Unskilled workers
Residual	
Paupers	Indefinite
No occupation	

NOTES

1. Public Record Office, London, RG12/716. *National index to 1881 British Census* and *1881 British census,* Church of Jesus Christ of Latter Day Saints [CD-ROM] (Utah, 1999).
2. For example S.C.F. Robinson, 'Life-time migration and occupation in Motherwell, 1851-1891', *Local Population Studies*, **61** (1998), 13-24. Robinson recognises that 'CEBs are the single most important primary source for internal lifetime migration studies, unless they focus on short-term moves'.
3. D.R. Mills and K. Schürer, 'Migration and population turnover', in D.R.Mills and K. Schürer, eds, *Local communities in the Victorian census enumerators' books*, (Oxford, 1996), 218.
4. *1891 Census Great Britain, vol. II. Area, houses and population: registration areas and sanitary districts*, BPP 1893-4, CV, 66-67.
5. E.R. Kelly, ed., *Directory of Kent*, (London, 1903), 80, 81, 445, 585-6, 670.
6. G. Mingay, 'Agriculture', in A. Armstrong ed., *The economy of Kent 1640-1914,* (Woodbridge,

1995), 53.

7. S.M. Archer, *GENMAP UK, version 1.0y* [Computer software], (Npp, 1998). *Attica Interactive Ordnance Survey Atlas* [CD-ROM], (Oxford, 1997).
8. Record linkage studies are often performed using a computer to test the linkage. For an example of a set of rules for determining links between CEBs see B. Wojciechowska, 'Brenchley: a study of migratory movements in a mid-nineteenth century rural parish', in Mills and Schürer, eds, *Local communities*, 266. For the present article, since entries in the LDS CD were located individually by interactive use of the search facility, manual inspection of each located entry was possible. The guidelines used in the current article were based on the writer's (unpublished) experience of manually linking census records in genealogical research, when other information is available for confirmation. See also P. Tilley and C. French, 'Record linkage for nineteenth-century census returns. Automatic or computer aided?', *History and Computing*, **9** (1997), 122-33.
9. W.A.Armstrong, 'The use of information about occupation: Part 2, An industrial classification 1841-1891', in E.A. Wrigley ed., *Nineteenth-century society*, (Cambridge, 1972), 226-52.
10. *Lloyd's encyclopaedic dictionary: a new and original work of reference to the words in the English language*, (London, 1895); Ministry of Labour, *A dictionary of occupational terms based on the classification of occupations used in the census of population, 1921* [CD-ROM], (Milton Keynes, 1998).
11. W.A.Armstrong, 'The use of information about occupation: Part 1, A basis for social stratification', in Wrigley, ed, *Nineteenth-century society*, 198-214.
12. *1891 Census Great Britain, vol. IV, General report, with summary, tables and appendices*, BPP 1893-4, CVI, 35-36.
13. *1891 Census Great Britain, vol. IV, General report, with summary, tables and appendices*, BPP 1893-4, CVI, 4-7; K. Schürer and D. R. Mills, 'Population and demography', in Mills and Schürer eds, *Local Communities*, 73.
14. Mingay, 'Agriculture', 76-81.
15. S.J. Twist, *Murston Village and Parish*, (Sittingbourne, 1981), 11-13; R.H. Perks, *George Bargebrick esquire*, (Rainham, 1981), 25; P Bellingham, *Sittingbourne and Milton – an illustrated history*, (Sittingbourne, 1996), 45.
16. Four residents of even-numbered houses in George Street had addresses that differed by two across the censuses: for example, an address of 24 George Street in 1891 and 22 George Street in 1881. In view of the consistency of the discrepancy, it is concluded that a change in house numbering is responsible.
17. S.J. Twist, *Stock bricks of Swale*, (Sittingbourne, 1984), 10-11.
18. Bellingham, *Sittingbourne and Milton*, 45.
19. Bellingham, *Sittingbourne and Milton*, 47.
20. *1891 Census Great Britain, vol. IV, General report, with summary, tables and appendices*, BPP 1893-4, CVI, 45.
21. D.R. Mills and K. Schürer, 'Employment and occupations', in Mills and Schürer eds, *Local communities*, 149.
22. Twist, *Stock bricks of Swale*, 13.
23. J. Preston, 'Industry, 1800-1914', in A. Armstrong, *The economy of Kent*, 113; Perks, *George Bargebrick esquire*, 45.
24. *1891 Census Great Britain, vol. IV, General report, with summary, tables and appendices*, BPP 1893-4, CVI, 20.
25. Perks, *George Bargebrick esquire*, 39-40.
26. Twist, *Murston Village and Parish*, 19.
27. Mingay, 'Agriculture', 76-81.
28. *1891 Census Great Britain, vol. IV, General report, with summary, tables and appendices*, BPP 1893-4, CVI, 46-47.