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**MIGRANT WORKERS IN LONG
TERM CARE: EVIDENCE FROM
ENGLAND ON TRENDS, PAY AND
PROFILE**

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About *Social Care Workforce Periodical*

The *Social Care Workforce Periodical* (SCWP) is a regular web-based publication, published by the Social Care Workforce Research Unit, King's College London. SCWP aims to provide timely and up-to-date information on the social care workforce in England. In each issue, one aspect of the workforce is investigated through the analysis of emerging quantitative workforce data to provide evidence-based information that relates specifically to this workforce in England. The first issues of *Social Care Workforce Periodical* provide in-depth analyses of the latest versions of the National Minimum Data Set in Social Care (NMDS-SC); for further details on NMDS-SC please visit <http://www.nmds-sc-online.org.uk/>. We welcome suggestions for topics to be included in future issues.

About the author

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Executive Summary

This Issue of the *Social Care Workforce Periodical* continues the analysis of the contribution of migrant care workers in the English social care sector, particularly in the long term care sector. In this *Issue* we focus on three main elements: first, observed trends in the use of migrants from different nationalities in the care sector; second, it examines pay differentials between migrants and British workers; and lastly, using a regression model, it investigates the specific characteristics of migrants in the care sector and whether they are more likely to be working in organisations with specific characteristics or type.

We examined three main trends in the last decade, first considering changes in the numbers of migrants identified as working in the care sector through the NMDS-SC (December 2010) who were reported as being not-British by their employers. These were differentiated by nationality; divided into four broad groups: EEA, A8, A2 and non-EEA migrants. We then investigated trends in joining the English care sector, and the specific current jobs of migrants. The NMDS-SC now provides valuable data on the trends of the use of migrants in the English care sector. From the information provided by employers related to different dates: concerning moving to the UK, joining the sector and taking on current jobs, we can deduce a number of findings related to the patterns of migrants' contribution to the sector. First, it is clear that migrants from non-EEA countries continue to form the majority of migrants joining the sector year on year, while the contribution of migrants from A8 and A2 countries is becoming more evident. Second, there are indications that during 2010 employers may have tended to recruit migrants already in the UK rather than recruiting them directly from abroad, however, migrants from all groups seem still to have been recruited.

Looking at the length of time that has elapsed between joining the UK and entering the English care sector, as well as current main jobs, the analyses reveal that A8 and A2 nationals have the fastest tempo of joining both the care sector and their current jobs after arriving to the UK. This suggests that they have either secured their care jobs while in their home country or actively sought employment in the sector on arrival. For other EEA nationals the picture was different, on average, migrants from this group waited over three years after arrival to the UK before joining the care sector and four years prior to their current job. These figures may suggest different initial migration motivations and may reflect that many of this group have accompanied other family members to the UK and perhaps, after a while, they have considered work in this sector. Similar results were suggested in relation to this group in a recent national survey of migrant care workers in the UK (Hussein et al 2011a). These findings are consistent with studies of different groups of workers in relation to their immigration status, motivations and skills capital when they both join the UK and the care sector.

The pay analysis indicates that many migrant workers in the care sector earn less than British workers. However, when specific job role is controlled for, these variations are not significant. Moreover, some migrants in managerial jobs earn more than their British counterparts. The latter may relate to factors not captured by the NMDS-SC such as patterns of shifts, for example, night or weekend shifts, as well as individual personal and professional experiences. Overall the distributions of hourly pay rates were narrower among migrant workers, suggesting less variability in their pay and wages. There were, however, some significant variations in the hourly pay rate among migrants and British workers in relation to the settings in which they work. Such gaps were widest within adult community care settings and may reflect the specific jobs likely to be undertaken by migrants and British workers within these services. Consistent with previous pay analyses in the care sector (Hussein 2010a and 2010b) both migrants and British workers earn least within the private sector, however, migrants working in the care sector earn most in the voluntary sector while British workers earn most in local authorities. These pay differences may again reflect differences in type of services and job roles within the private, voluntary and public care sectors.

A logistic regression model examining the specific profile of migrant workers confirms that they are more likely to be young, but there is more of an equal gender balance, with significantly less reported disabilities among migrants working in the care sector compared to UK staff. In addition, the model highlights a number of important findings that may have direct implications on the quality and continuity of care provided by migrant workers in the care sector. The use of migrant workers is positively and significantly associated with both turnover and vacancy rates within organisations. This implies that employers may resort to employing migrant workers when both recruitment and retention are most difficult. Some of these difficulties may be related to macro factors, such as the location of the service, care jobs in large cities being harder to fill for example, but may also relate to meso factors and may reflect poor working conditions within such organisations. On a positive note, migrant workers are significantly more likely to have completed their induction, indicating a level of awareness among employers of the importance of induction especially to migrants who may be unfamiliar with the English care system. However, the current data do not allow investigating induction contents and whether these are tailored towards migrants' needs or not.

Migrants are more likely to be employed within the private sector and the interaction with high turnover rate increases such likelihood. They are also significantly more likely to be working within social care services providing care to adults/older people with dementia; with physical disabilities or impairments and less likely when services are offered to older people and adults with learning disabilities, sensory disabilities or mental health needs. Finally the model indicates that migrant workers are significantly more likely to be working as agency (temporary) staff, within adult residential services and to work full time.

Background

This *Issue* follows on the analysis presented in *Issue 11* of the *Social Care Workforce Periodical* focusing on a large sample of migrants who work in the English care sector (Hussein 2011). The analyses presented here are based on the National Minimum Data Set for Social Care (NMDS-SC) and investigate three main elements: the first relates to inferences drawn from the information on trends in the patterns of the contributions of migrants from different groups of nationalities over the past 15 years to the English care sector. The second considers wages and pay among this sample of migrant workers in comparison to their British counterparts with similar jobs; and the third investigate observed differentials in the personal and employment profile of migrants when compared to British workers in the care sector using a regression model.

The structural position of migrant workers, as well as most Black and minority ethnic workers, in the English labour market is assumed to be both historically embedded and well known (Fryer, 1988; Allen et al, 1998; Holgate 2005). They are usually concentrated in low-paid, low-skilled jobs primarily because of their 'migration' status and not necessarily reflecting their skills capital. The analysis presented in *Issue 11* of this *Periodical* indeed indicates a high prevalence of migrant workers in the English care sector with a substantial presence in some geographical areas and within sectors where it appears to be particularly hard to recruit (Hussein 2011).

Migrant workers are not a homogenous group and are increasingly coming to the UK from a variety of countries. This is particularly evident since 2004 with the enlargement of the European Union (EU) and the incremental participation of Eastern European nationals (particularly Polish) to the British economy, especially in low-paid and hard to fill jobs, such as those found in the care sector. Some commentators have expressed concerns that such workers may compete with and acquire jobs that may be otherwise suitable for unemployed British people. However, empirical evidence is mounting that this is not the case, with no statistical differences on the impact of such 'influx' on the labour market outcomes of 'natives' (Gilpin et al 2006; Lemos and Portes, 2008). This is also true for the specific sector of social care, where employers and recruitment agencies have insisted on the need for migrant workers despite the economic hardship Britain is currently going through, highlighting the unattractiveness of the sector to local 'native' workers (Hussein et al, 2011b; Manthorpe et al 2010). The current evidence suggests that the care sector will continue for some time to rely on migrant workers despite the recession, changes in immigration policies and efforts to increase recruitment within the sector. Here, for the trends' analysis only, using NMDS-SC data up to the end of December 2010, we aim to explore trends in the use of migrants over the past ten years and to use the available data to investigate how long, on average, migrants take to join the care sector.

While the need for migrants to work in the care sector is evident, there is a growing body of literature suggesting that migrant workers are faced with a multiplicity of challenges. These include racism and discrimination within the workplace (Stevens et al in press), poor wages (Evans et al 2005), and harder working conditions. The data related to the English social care sector suggest that they may be concentrated in London and other large cities, similar to other low-paid jobs (Wills et al 2009) and that incidences of bullying and racism are experienced by many migrants in the care sector (Cangiano et al 2009; Hussein et al 2011a). The NMDS-SC now includes information on both nationality and pay data, which allows investigation of whether migrants receive unfavourable pay levels or not. In this *Issue* we use data up to the end of October 2010 to investigate pay-differentials among migrants and British workers doing similar jobs.

The current evidence also suggests that while the profile of migrants within the care sector is not only different from that of British workers it is also changing. However, there has been, until recently, very little national level data available to establish the specific profile of migrant care workers. The current NMDS-SC data offer a unique opportunity to examine this profile while taking account of a number of factors at the same time, therefore controlling for confounding effects. In this *Issue* we use NMDS-SC data returns, until end of October 2010, to build a regression model which investigates the specific characteristics of a large sample of migrant workers in comparison to other workers while controlling for several factors, such as sector of work and type of settings, in an attempt to compare like with like as much as the data allow.

Methods

For all analyses in this Issue of the *Social Care Workforce Periodical*, except for trends analysis, we use recent data of NMDS-SC up to the end of October 2010. For trends' analysis we extend this to include up to the end of December 2010 to have full coverage for year 2010. These data include recent additional items related to nationality and country of birth of workers, which were introduced at the beginning of 2010 and became an official part of the NMDS-SC returns from October 2010. We have examined the representativeness of this sub-sample of NMDS-SC that includes information on nationality in comparison to the whole NMDS-SC in *Issue 11* (Hussein 2011) and established that this sub-sample is very much similar except for an under-representation of workers from local authorities.

By the end of October 2010 employers completing the NMDS-SC returns provided detailed information on a total of 554,108 workers in the 'individual workers dataset', out of these, nationality and country information was available for 233,051 workers (42% of total individual returns). The analysis presented in this *Issue* is divided into three main parts: the first investigates trends in the use of different migrant groups within the sector, the second examines pay differentials in relation to whether workers are migrants or not, and the third part investigates if there is a distinctive profile of migrant workers within the sector.

Trends analysis

To have complete data for year 2010, for the specific trends' analysis we used NMDS-SC December 2010 individual data records that contain information on nationality. The rest of the analysis presented in this Issue, related to pay and profile analysis, uses data up to October 2010 as these were examined in terms of representativeness to the overall returns of NMDS-SC (Hussein 2011). Employers were asked to provide additional information for these workers. These included year of entry to the UK, year of joining the care sector and year of joining current employment. These dates were recorded by employers for some of the identified non-British workers and allowed us to compute time elapsed between entering the UK and joining the care sector, as well as between entering the UK and joining the current employer. However, it is not clear from the data whether year of entering the sector refers solely to year of entering the sector within the UK market or in general. Some data investigations suggest that in a number of cases the year of entering the care sector may refer to a general term rather than specifically to the UK market, these are indicated by negative elapsed time between joining the UK and the sector found in the data. For the specific analysis of time elapsed before joining the sector we confined the cases to information where employers had provided both dates (joining UK and sector) and where the year of joining the sector was the same as or latter than the year of entering the UK.

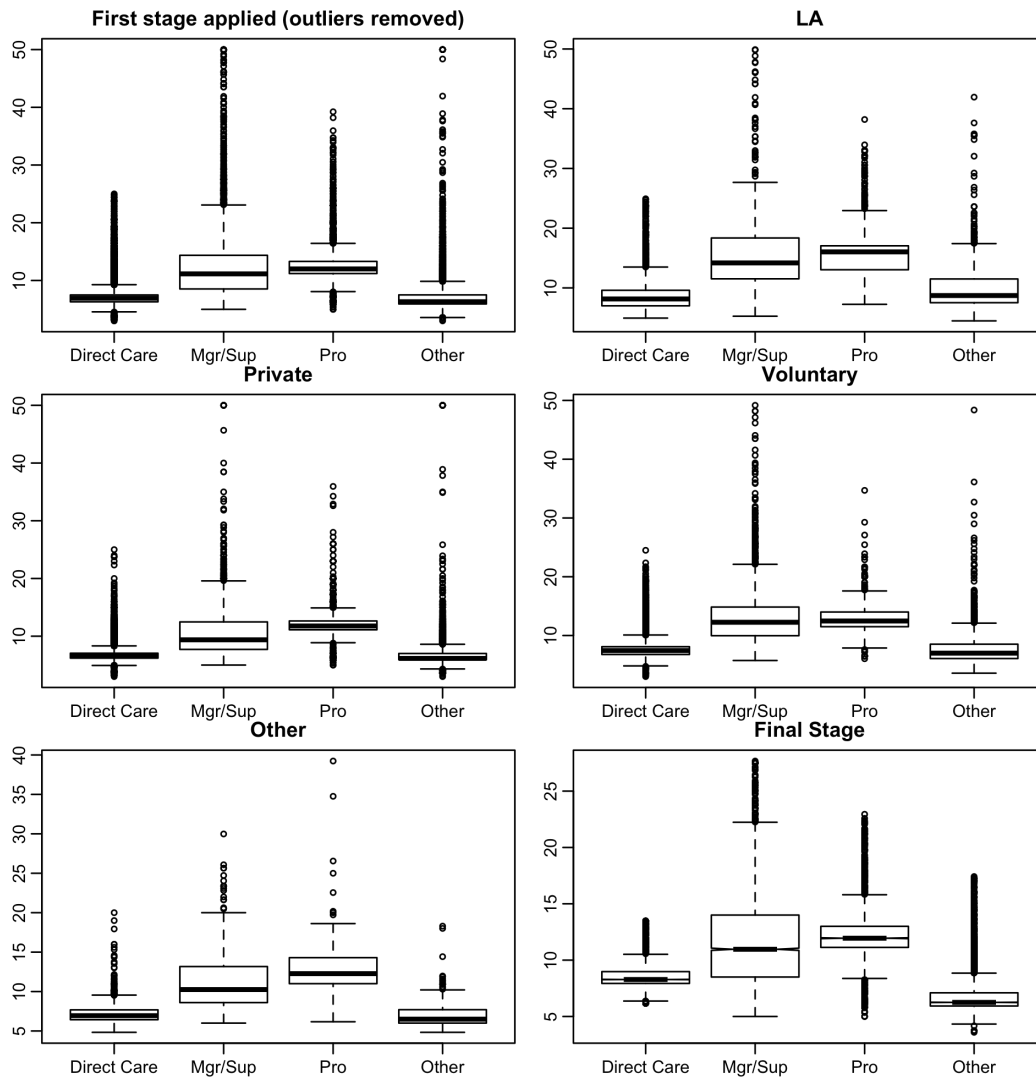
There are a number of considerations when using and interpreting these data; these relate to the fact that such information is provided by employers as well as being recent additions to the usual NMDS-SC returns. Employers might not know, in some cases, exactly when workers have entered the UK and may make some 'informed guesses'; they are more likely, however, to know more accurately when migrants took up their current jobs. There can be also some reporting biases, such as digit preference, affecting the accuracy of the exact dates. The information in relation to trends' analysis should be thus treated as indicative and may reflect general emerging patterns in the use of migrants over a period of time.

Pay analysis

Data related to pay are collected through a number of items in the NMDS-SC, to enable a comparative analysis of different data on pay these were converted to reflect 'hourly rates'. In addition, most data items include several extreme cases and an elaborate process of data cleaning was used. The process starts by excluding obvious extreme cases relative to job roles using an hourly pay range protocol. The data were then subjected to a rigorous iterative process to remove outliers controlling for both sector of work and job role. The latter process is similar to the methods adopted and explained for the pay analyses presented in *Issues 6 and 7 of the Social Care Workforce Periodical* (Hussein 2010a and 2010b).

Figure 1 provides some visual presentations of the process of removing extreme outliers. For pay analysis, we restricted our sample to returns containing information on nationality, where the age of workers is between 17 and 75 (inclusive) and focused only on those working on the adult care sector who are in paid employment, thus removing volunteers and other unpaid workers such as interim staff and students. We used a total of 119,885 records for the pay analysis from the NMDS-SC October 2010 individual workers records, these included complete pay information as well as data on nationality.

Figure 1 Steps of data cleaning for pay analysis removing extreme cases (outliers) within main job roles and sectors

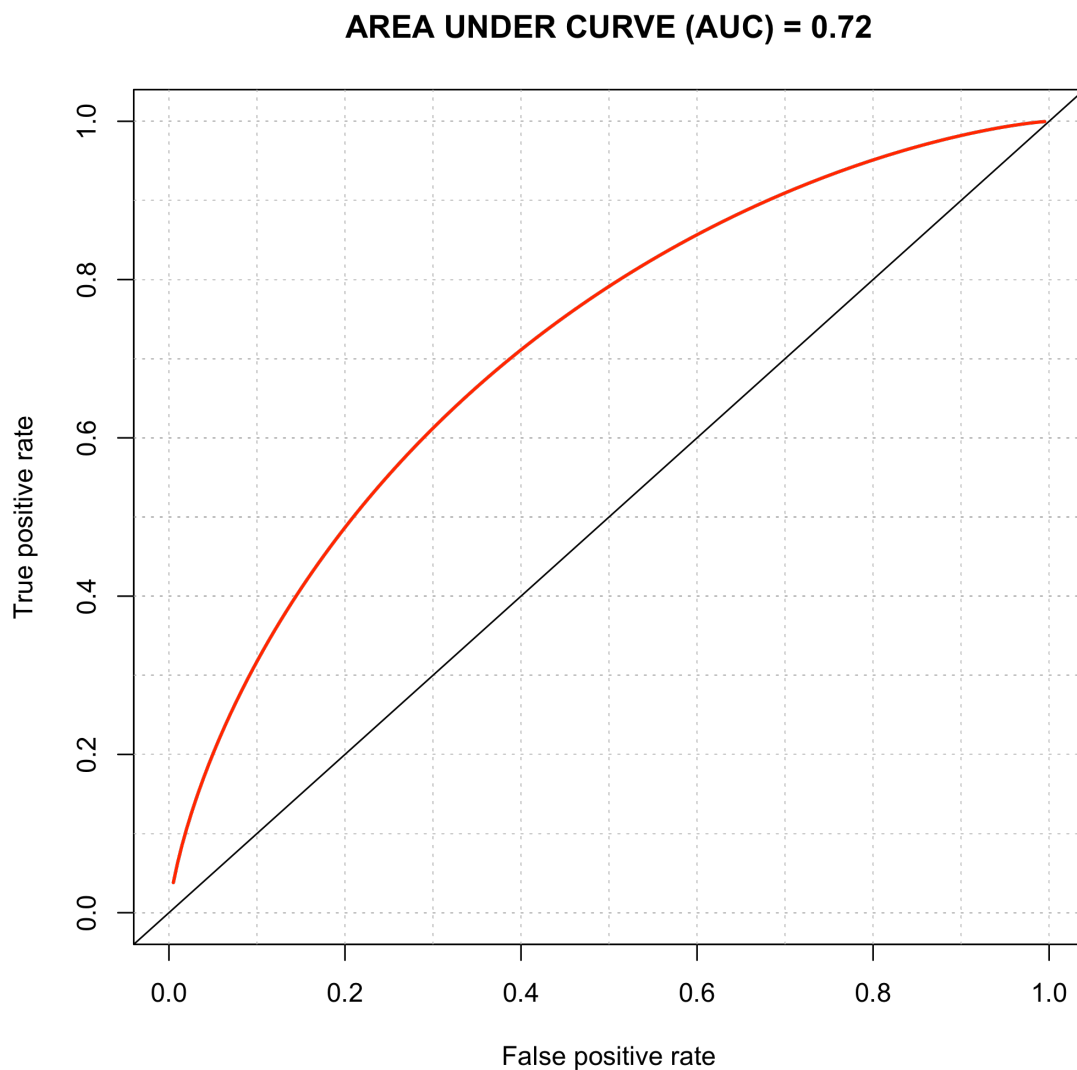


Regression analysis

The analysis of the characteristics of non-British nationals when compared to British workers discussed in *Issue 11* suggested that there is a distinct profile of migrant workers in relation to both individual and organisational characteristics. The purpose of this analysis is to examine whether these suggested associations and relationships are significant while controlling for other variables or not. To achieve this we performed a logistic regression model where the outcome variable is whether workers are migrants or not; migrants are defined as those identified by their employers to be not British. The following variables were included in the initial regression model (the final model only presents those found to have significant association with migration): age, gender, any disability, induction status, sector (public, private, voluntary etc.), organisation size, turnover rate within organisation, vacancy rate within organisation, main job role group, employment status of worker (permanent, temporary, agency or

other¹), work patterns (full time, part time or flexible), type of settings, and working within organisations providing services to different service user groups. We also controlled for the interactions between sectors with turnover rates; sector with vacancy rates and sector with organisation size. Due to the large number of missing values for data on qualifications we did not include this in the model to minimise list-wise deletion of records. The final model had an AUC measure of 0.72 (presented in Figure 2) indicating the very good discriminatory power of the model.

Figure 2 Area under curve, indicating final logistic regression model discriminatory power



¹ Other includes bank or pool, students on placements and volunteers

I. Trends in the use of migrant workers in the English care sector

In this section we examine trends in the level of the contribution of migrant workers in the care sector through an exploration of a number of dates. First, we examine data related to year of entry to the UK and investigate the patterns of change over the last decade for four main groups of migrant workers²: EEA nationals; A8 nationals; A2 nationals; and non-EEA nationals. Further details on these groups are provided in *Issue 11* (Hussein 2011). We then consider information related to the year when people took up work in the care sector and the year when they took up their current employment. Using different dates we explore how much time elapsed between migrants' move to the UK and both joining the sector and current employer and examine whether these are similar (or different) for the four groups of migrants.

Year of entry to the UK

The NMDS-SC collected information on year of entry to the UK for workers identified by their employers as 'not British'. Table 1 and Figure 3 present trends in the number of migrants from different nationality groups entering the UK from 1995 to 2010. Table 1 clearly shows that the largest group of migrants are those from non-EEA states, they formed a considerable proportion of all migrants- ranging from 72 percent to 87 percent with a considerable 90 percent in 2000 but this latest figure appears to be an anomaly. The numbers of migrant workers from A8 and A2 countries were almost negligible prior to 2004; for example only 36 A8 nationals were reported to enter the UK in 2003 this increased to 195 in 2004 and 363 in 2005. These observations are in line with changes in immigration laws and the EU enlargement in 2004. The figures also indicate a steady increase in A2 nationals entering the UK from 2004 until 2009 - similar observations apply for non-EEA nationals who were reported to be working in the care sector.

Figure 3 presents these data graphically for each group of migrant workers. For EEA nationals, there seems to be a digit preference around 2005 where employers indicated a larger than expected number of workers to enter UK in that year. This data point aside, the figures show that the number of workers from EEA countries steadily increased over the past decade to reach the highest of 94 migrants entering the UK in 2010. Figure 3 also shows a peak of migrants

² EEA countries (excluding UK, A8 and A2): Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Malta, Norway, Portugal, Republic of Ireland, Spain, Sweden, Switzerland, The Netherlands. A8 countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia. A2 countries: Bulgaria, Romania. Non-EEA countries: The rest of the world

from A8 workers entering the UK during the period 2005-2007, then a decline until 2010. Such observation may chime with other research where an observed 'influx' from A8 countries (particularly Poland) was observed in the early years of joining the EU that then slowed down; in fact by 2009 more A8 nationals had left the UK than arrived (IPPR 2010).

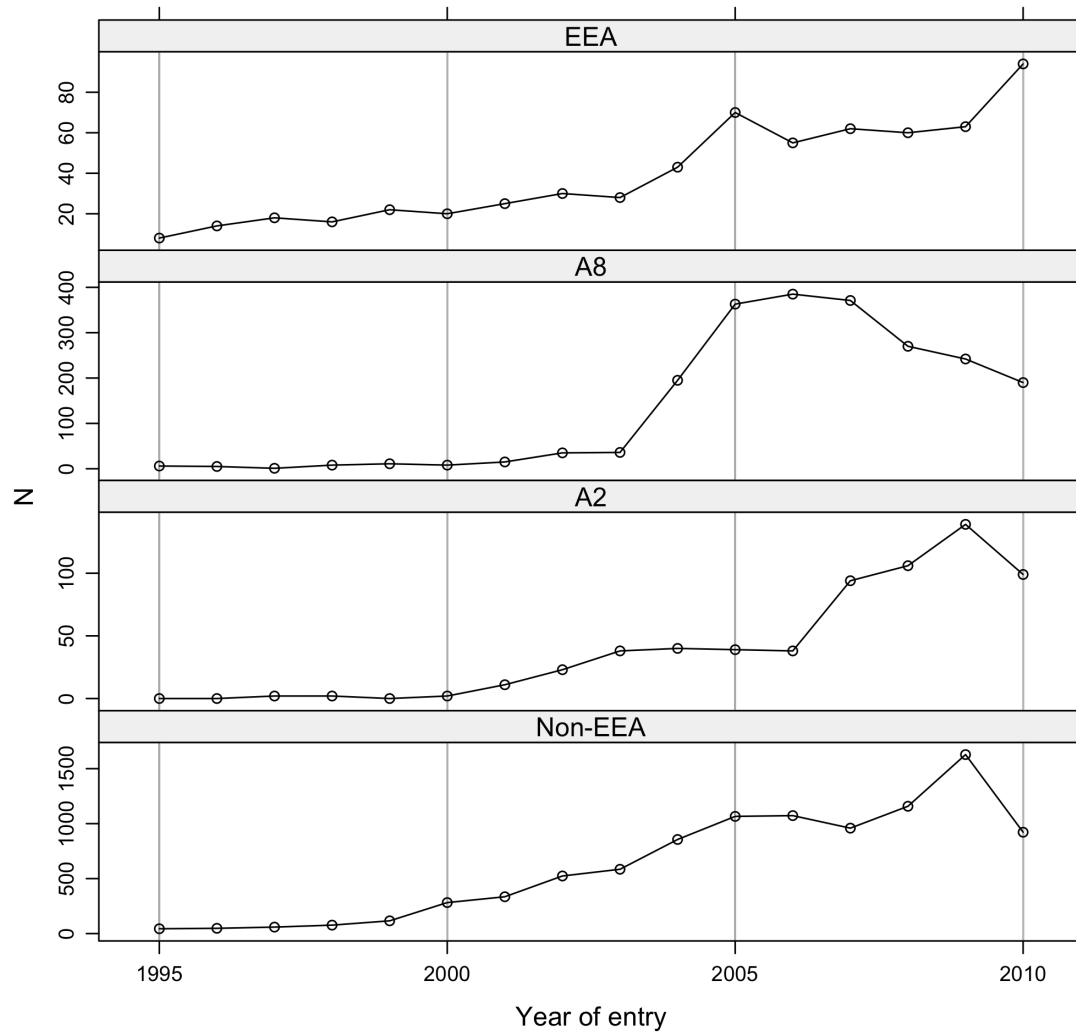
Table 1 Number of migrant workers (working in the care sector) by year of entry since 1995 and nationality group

<i>Year entered the UK</i>	<i>Nationality</i>				<i>Number of not-British workers</i>
	<i>EEA</i>	<i>A8</i>	<i>A2</i>	<i>Non-EEA</i>	
1995	8	6	0	44	58
	13.8	10.3	0.0	75.9	100.0%
1996	14	5	0	48	67
	20.9	7.5	0.0	71.6	100.0%
1997	18	1	2	59	80
	22.5	1.3	2.5	73.8	100.0%
1998	16	8	2	77	103
	15.5	7.8	1.9	74.8	100.0%
1999	22	11	0	116	149
	14.8	7.4	0.0	77.9	100.0%
2000	20	8	2	282	312
	6.4	2.6	0.6	90.4	100.0%
2001	25	15	11	335	386
	6.5	3.9	2.8	86.8	100.0%
2002	30	35	23	524	612
	4.9	5.7	3.8	85.6	100.0%
2003	28	36	38	585	687
	4.1	5.2	5.5	85.2	100.0%
2004	43	195	40	856	1,134
	3.8	17.2	3.5	75.5	100.0%
2005	70	363	39	1,066	1,538
	4.6	23.6	2.5	69.3	100.0%
2006	55	385	38	1,073	1,551
	3.5	24.8	2.5	69.2	100.0%
2007	62	371	94	959	1,486
	4.2	25.0	6.3	64.5	100.0%
2008	60	270	106	1,158	1,594
	3.8	16.9	6.6	72.6	100.0%
2009	63	242	139	1,628	2,072
	3.0	11.7	6.7	78.6	100.0%
2010	94	190	99	922	1,305
	7.2	14.6	7.6	70.7	100.0%

For non-EEA nationals, Figure 3 shows the steady increase in the contribution of this group of migrants to the English care sector. There is a dip in 2010, however, this may be an anomaly and more data points will allow the investigation of this figure. On the other hand, it may reflect the current debate of the cap on non-EEA migrants and the introduction of the interim cap since June 2010, which affected

the ability of many employers to employ non-EEA migrants; although this was later legally challenged (The Independent 2010).

Figure 3 Trends of number of migrant workers (in the care sector) entering the UK from 1995 to 2010 by nationality groups



Year of starting in the social care sector

Data on the year when migrants started working in the social care sector were available for more migrants than year of entry to the UK. This may be a true reflection of the employers' knowledge of these facts, given that many employers may have better information about when their employees started working in the sector as part of their interviews or recruitment process rather than year of entry to the UK. This may especially be the case if they are recruiting from within the UK. However, it is not clear from the data whether these dates refer to entering the sector within the UK or in general, i.e. if migrants have been working in care jobs in their home countries prior to joining the UK.

Table 2 and Figure 4 confirm the emerging pattern of change in migrants joining the UK social care sector. Workers from non-EEA countries entering the care sector remained the majority over the past 15 years; however, their relative share was reduced by 5 to 10 percent since 2004 (EU enlargement). This was coupled by yearly increases of migrants joining the care sector from European countries, particularly the A8. In absolute numbers, according to the current data, year 2009 saw the largest number of migrants joining the care sector (n=5209).

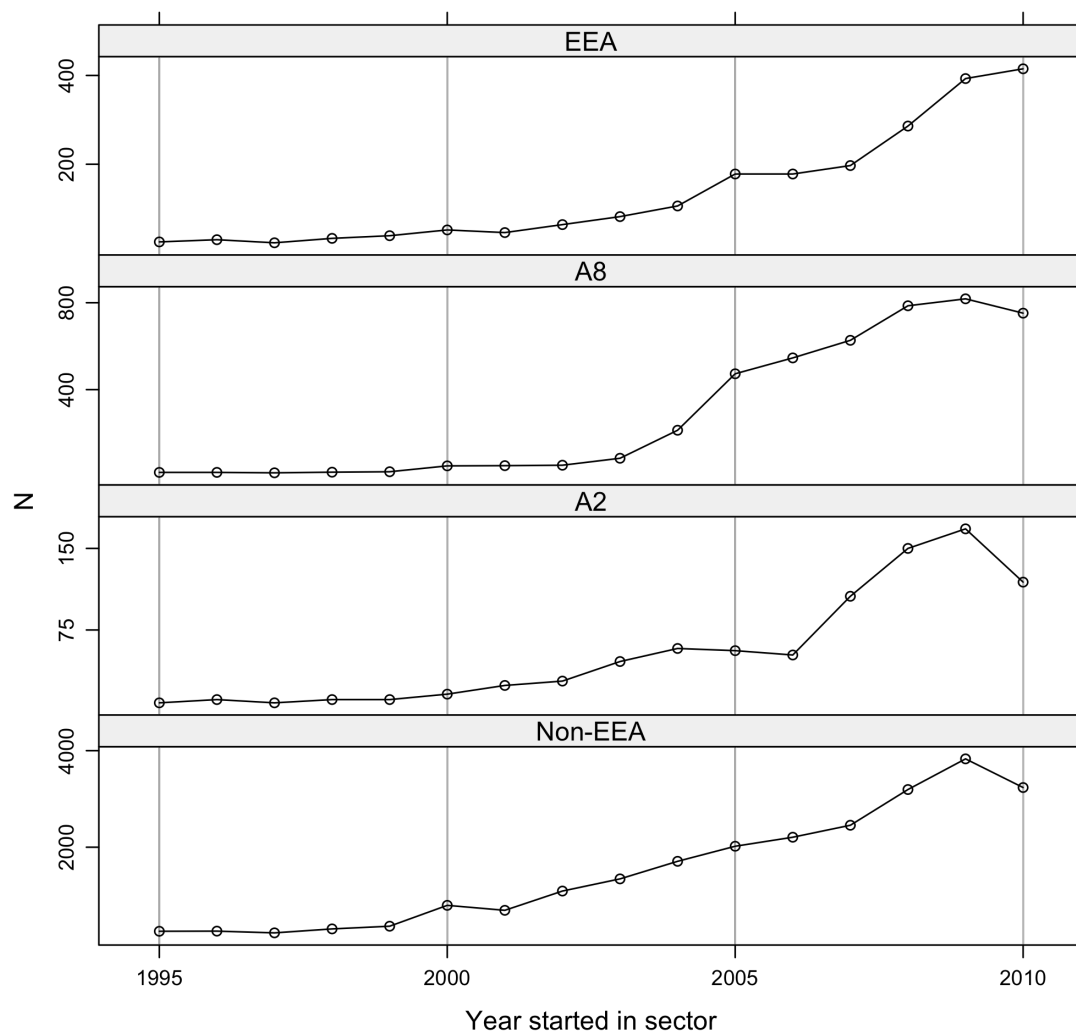
Table 2 Number of migrant workers (working in the care sector) by year of starting the sector from 1995 to 2010 and nationality group

<i>Year started in social care sector</i>	<i>Nationality</i>				<i>Number of Migrants</i>
	<i>EEA</i>	<i>A8</i>	<i>A2</i>	<i>Non-EEA</i>	
1995	25	19	8	259	311
	8.0%	6.1%	2.6%	83.3%	100.0%
1996	30	19	11	262	322
	9.3%	5.9%	3.4%	81.4%	100.0%
1997	23	17	8	226	274
	8.4%	6.2%	2.9%	82.5%	100.0%
1998	33	20	11	308	372
	8.9%	5.4%	3.0%	82.8%	100.0%
1999	39	22	11	364	436
	8.9%	5.0%	2.5%	83.5%	100.0%
2000	52	49	16	796	913
	5.7%	5.4%	1.8%	87.2%	100.0%
2001	46	50	24	693	813
	5.7%	6.2%	3.0%	85.2%	100.0%
2002	64	52	28	1092	1236
	5.2%	4.2%	2.3%	88.3%	100.0%
2003	82	84	46	1344	1556
	5.3%	5.4%	3.0%	86.4%	100.0%
2004	106	213	58	1708	2085
	5.1%	10.2%	2.8%	81.9%	100.0%
2005	178	473	56	2020	2727
	6.5%	17.3%	2.1%	74.1%	100.0%
2006	178	546	52	2207	2983
	6.0%	18.3%	1.7%	74.0%	100.0%
2007	197	627	106	2455	3385
	5.8%	18.5%	3.1%	72.5%	100.0%
2008	286	786	150	3195	4417
	6.5%	17.8%	3.4%	72.3%	100.0%
2009	393	818	168	3830	5209
	7.5%	15.7%	3.2%	73.5%	100.0%
2010	415	752	119	3236	4522
	9.2%	16.6%	2.6%	71.6%	100.0%

Figure 4 shows an increase in the number of migrant workers entering the sector year on year since 2000. For EEA nationals a steady increase was observed from 2004 onwards, these levelled at around 400 new entrants in 2009 and 2010. A relatively large increase was seen in relation to A8 nationals from 2005, but

these levels were more stable from 2008 to 2010 with a peak of over 800 new entrants in 2009. For A2 nationals the numbers were relatively small until 2007 when over 100 migrants started the sector but their numbers have increased year on year since then. For the largest group, non-EEA migrants, a smooth incremental trend is observed since the year 2000 (increasing from nearly 800 entrants in 2000 to nearly 4000 new entrants in 2009), although there was a reduction in the year 2010 of non-EEA migrants starting in the sector (3236 versus 3830 in 2009), possibly related to the introduction of the interim immigration-cap in June 2010 as explained above.

Figure 4 Trends of number of migrant workers (in the care sector) entering the social care sector from 1995-2010 by nationality groups



Year started with current employer

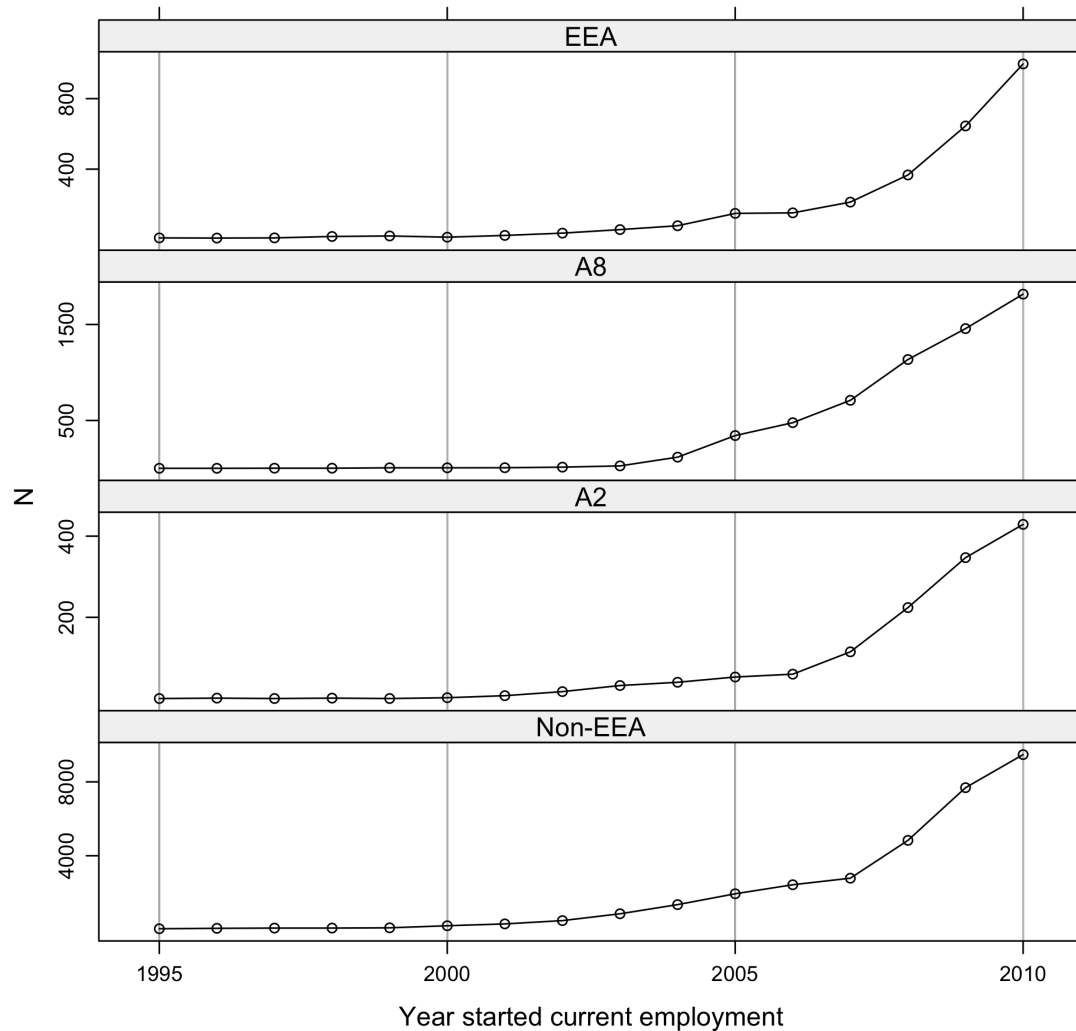
In addition to collecting information on year of entering the UK and year of starting in the sector for all migrant workers, the NMDS-SC also collected information on the year when migrant workers joined their current main jobs.

Conceptually such information may be the most accurate of these three dates, assuming that the likelihood that employers would know when a worker joined their current main jobs is greater than knowing the more general pieces of information about their joining the sector or when they moved to the UK. Such data were indeed provided for more individual workers than the rest of the dates reported. Employers indicated that 42,999 workers started their current employment during the past 15 years, compared to indications that 31,561 started working in the care sector during the same period (using NMDS-SC data up to the end of December 2010 data). Some of these differences might relate to the increased knowledge of employers, and thus the accuracy of information, but they may also reflect true variations and gaps between starting work in the sector and starting the actual job. Therefore, all three pieces of data are used here to infer information on patterns and trends in the levels of migrants' contribution to the English care sector.

Table 3 and Figure 5 present the numbers of migrants from different nationality groups starting their current jobs in the English care sector for the years 1995 to 2010. Table 3 shows that since 2004 the yearly addition of migrant workers to the care sector is considerable, with over 12,000 identified as starting their main jobs in 2010. Figure 5 interestingly shows a steady increase in the number of migrants from all nationality groups starting their main jobs, without the drop observed in 2010 for some nationality groups in relation to both year of entry to the UK and year started the sector. The latter may be related to the accuracy of different pieces of information provided by employers, but also may indicate that during 2010 employers might have recruited staff in the UK and this would include migrants already in the country rather than recruiting or employing directly from abroad. Table 3 shows that the absolute number of workers from all nationality groups increased from 2009 to 2010.

Figure 5 clearly shows that the pattern of increased volume of migrants in the sector, particularly over the past 5 years, is occurring for all nationality groups. It is also clear from the data that the contribution of A8 nationals is becoming relatively larger than that from other European countries. It is worth noting that the rate of increase in number of migrant workers starting their current job has accelerated since 2007. For example, a total of 3,822 migrants started their main jobs in 2007, an increase of 22.6 percent from the previous years, while an increase of a considerable 71.6 percent is observed for year 2008 (number of migrants increased from 3,822 to 6,558). This was followed by an increase of 54.5 percent for the year 2009.

Figure 5 Trends of number of migrant workers (in the care sector) starting their main jobs in the English care sector from 1995-2010 by nationality groups



The NMDS-SC provided valuable data on the trends of the use of migrants in the English care sector. From the information provided by employers related to different dates: joining the UK, joining the sector and joining current jobs, we can deduct a number of findings related to the patterns of migrants' contribution to the sector. First it is clear that migrants from non-EEA countries continues to form the majority of migrants joining the sector year on year, while the contribution of migrants from A8 and A2 are becoming more evident. Second, there are indications that possibly during 2010 employers may have tended to recruit migrants already in the UK rather than employ directly from abroad, however, migrants from all groups seem to have been recruited.

Table 3 Number of migrant workers (working in the care sector) by year of starting with current employers from 1995 to 2010 and nationality group

<i>Year started with current employer</i>	<i>Nationality</i>				<i>Number of migrant workers</i>
	<i>EEA</i>	<i>A8</i>	<i>A2</i>	<i>Non-EEA</i>	
1995	10 17.2%	2 3.4%	0 0.0%	46 79.3%	58 100.0%
1996	9 11.1%	2 2.5%	1 1.2%	69 85.2%	81 100.0%
1997	10 10.5%	3 3.2%	0 0.0%	82 86.3%	95 100.0%
1998	18 17.1%	3 2.9%	1 1.0%	83 79.0%	105 100.0%
1999	21 16.8%	7 5.6%	0 0.0%	97 77.6%	125 100.0%
2000	14 6.0%	7 3.0%	2 0.9%	209 90.1%	232 100.0%
2001	24 6.9%	8 2.3%	7 2.0%	309 88.8%	348 100.0%
2002	37 6.7%	14 2.5%	17 3.1%	487 87.7%	555 100.0%
2003	57 5.9%	27 2.8%	32 3.3%	857 88.1%	973 100.0%
2004	79 5.0%	118 7.4%	40 2.5%	1,353 85.1%	1,590 100.0%
2005	149 6.0%	343 13.8%	53 2.1%	1,940 78.1%	2,485 100.0%
2006	152 4.9%	477 15.3%	60 1.9%	2,429 77.9%	3,118 100.0%
2007	213 5.6%	710 18.6%	115 3.0%	2,784 72.8%	3,822 100.0%
2008	367 5.6%	1,135 17.3%	224 3.4%	4,832 73.7%	6,558 100.0%
2009	645 6.4%	1,457 14.4%	347 3.4%	7,686 75.8%	10,135 100.0%
2010	997 7.8%	1,816 14.3%	429 3.4%	9,477 74.5%	12,719 100.0%

Time between arriving to the UK and starting current main job in the English care sector

Using different dates we attempted to understand the process of recruitment, were migrants from different nationalities recruited directly overseas or are they recruited from within the UK? If they are recruited within the UK, how long have they been living in the UK before joining their current employment? We used information provided about year of entry to the UK and year starting current main job to investigate this. Information, on both dates, was provided for a total of 13,127 migrant workers. Number of years elapsed between arriving to the UK and joining current jobs are presented in Table 4 and Figure 6. The data shows

that on average there is 2.37 years gap between when migrants enter the UK and join their current main jobs in the care sector. The mean number of years between arrival and starting this job was lowest among nationals from A2 countries at 1.24 years followed by 1.78 years for A8 nationals; 2.45 years for non-EEA migrants and highest among other EEA nationals at 4.06 years. This information about the number of years elapsing between arrival and joining current job may suggest a number of possibilities and thus should be interpreted with caution. One interpretation can be that migrants who were employed directly from abroad, either through their employers or a recruitment agency (indicated by joining their jobs in the same year as their arrival), may be more experienced in social care work than others who have been working in the UK in other sectors before moving to social care work.

Table 4 Time in years between entering the UK and joining current main jobs in the care sector by nationality groups

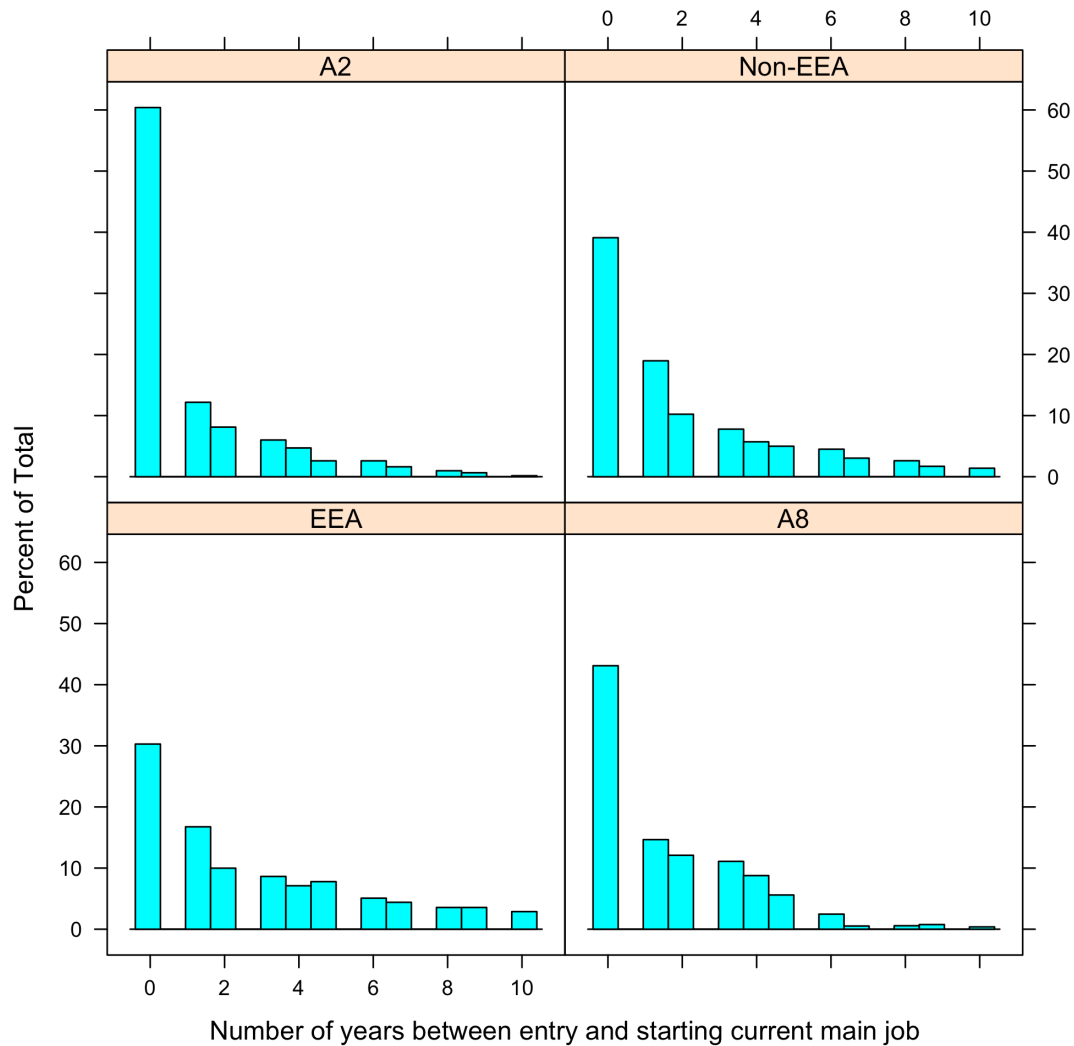
Time in years	Nationality									
	EEA		A8		A2		Non-EEA		All migrants	
	N	%	N	%	N	%	N	%	N	%
0	179	26.8	909	42.7	372	60.2	3683	37.9	5143	39.2
1	99	14.8	309	14.5	75	12.1	1786	18.4	2270	17.3
2	59	8.8	255	12.0	50	8.1	963	9.9	1329	10.1
3	51	7.6	234	11.0	37	6.0	733	7.5	1058	8.1
4	42	6.3	185	8.7	29	4.7	538	5.5	798	6.1
5	46	6.9	118	5.5	16	2.6	470	4.8	655	5.0
6	30	4.5	52	2.4	16	2.6	424	4.4	528	4.0
7	26	3.9	11	0.5	10	1.6	286	2.9	340	2.6
8	21	3.1	12	0.6	6	1.0	246	2.5	293	2.2
9	21	3.1	16	0.8	4	0.6	160	1.6	210	1.6
10+	94	14.1	26	1.2	3	0.5	425	4.4	713	5.4
Total	668	100.0	2127	100.0	618	100.0	9714	100.0	13127	100.0

Table 4 shows that overall 39 percent of migrant workers joined their current social care jobs during the same year when they arrived to the UK. This proportion was particularly highest among A2 nationals (at 60%) indicating that the migrant workforce contains recent arrivals and that many have taken up their jobs quickly. Workers from A2 countries may have secured care jobs through agencies in their home countries or via the Internet prior to arrival or have done so in the year when they arrived to the UK. Recent research indicates that the abundance of jobs in the care sector is attractive to people from both A8 and A2 countries who have joined the UK in recent years (Hussein et al 2010, Krings 2010).

In comparison, the percentage of migrants who joined their current jobs the same year they entered the UK is lowest among EEA followed by non-EEA workers at 27 and 38 percent respectively. While at face value this may indicate a different recruitment process for EEA nationals it may also indicate a higher prevalence of 'settled' migrants among this group. The low prevalence of 'zero' year elapse between arrival and joining main job may also indicate a higher

‘match’ between workers’ skills and the sector and elude to the possibility they are retained within the sector. For example, a relatively higher proportion of these two groups have a time difference of 6 years or more between entering the UK and joining their current care jobs suggesting that they might be moving jobs or employers within the care sector.

Figure 6 Distribution of number of years between arriving to the UK and starting current jobs by different nationality groups³



Overall, for all migrants with valid information, the mean time between arrival and joining current job is larger than that between arrival and joining the sector indicating some consistency in the data (2.37 vs. 1.54 years). Table 5 shows that A2 nationals spent the least time on average between joining the UK and the care sector at 0.53 years, while those from other EEA countries (excluding A8 and A2) spent the most time. This is consistent with other qualitative research, where the reasons for migration given by social care workers from EEA countries usually relate to joining other family member (secondary migrants) and such migrants

³ For those where the difference is 10 years or less

may at one later point decide to join the care sector. On the other hand, workers from A2 countries may have entered the UK with a secure job offer in the care sector through overseas agencies or the Internet. Table 5 also shows that A2 and A8 nationals have the least difference between mean number of years prior to joining the English care sector and joining current jobs, possibly indicating their recent movement to the care sector and a lower likelihood of change in employment within the sector for many of them.

Table 5 Mean number of years between joining the UK and joining the sector or current job by different migrant groups

Migrant group	Mean number of years elapsed between moving to the UK and joining the social care sector and current job		Difference in years
	Current job	The social care sector	
EEA	4.06	3.12	0.94
A8	1.78	1.07	0.71
A2	1.24	0.53	0.71
Non-EEA	2.45	1.59	0.86
Total	2.37	1.54	0.83

II. Pay-differentials and migrant workers in the English care sector

There is a growing volume of literature suggesting that migrant workers may be subjected to poorer working conditions, including lower pay, than other workers. The current NMDS-SC provides an opportunity to investigate migrant pay differentials for workers performing similar jobs. Of course, there are a number of factors that may influence levels of pay that cannot be adjusted or controlled for using this dataset. For example, no information is available on the quality of work or actual relevant experiences of workers to their specific jobs. Nevertheless, such data provide an opportunity for a preliminary investigation of whether any migration related pay differentials exist within the sector. To perform pay analysis using the NMDS-SC data, an elaborate process of data cleaning to reduce bias was performed, this process is explained in the Methods' section and in previous *Issues* of the *Social Care Workforce Periodicals* when pay levels and their differentials were investigated (*Issues* 6 and 7; Hussein 2010a and 2010b). We attempt here to investigate variations in hourly pay rates between migrants and 'British' workers while sequentially controlling for a number of factors such as main jobs, sector of work, and type of settings.

Migrant pay-gaps and main job roles

Table 6 presents hourly pay statistics for migrants and British workers by main job roles. It includes median, mean and standard deviations of hourly pay rates and number of cases for all workers identified as 'non-British' by their employers compared to that obtained for 'British' workers. The Table shows that for each of the main jobs, the mean hourly pay rate for non-British workers is lower than but quite close to that among British workers. For example, migrant care workers earn on average £6.70 per hour only 14 pence lower than the £6.84 average hourly pay rate of British care workers. While at the same time, in some job roles, particularly where the numbers of migrant workers are relatively small, such as registered manager and first line managers, migrant workers appear to earn more on average (£14.00 vs. £12.90 and £11.40 vs. £11.00). The latter may reflect characteristics of specific jobs, which are not captured by this dataset. For example, migrant workers within these job roles may be doing more 'difficult' shifts, such as night and weekends. Overall, using Analysis of Variance (ANOVA), these differences on mean hourly pay rate by whether workers are migrants or not are not significant when individual job roles are considered ($F=0.02$; $p=0.97$). Observed differences within individual job roles, particularly for managers, may relate directly to the personal qualities and experiences of the few migrants who hold these particular jobs. The literature on migrant pay-gaps usually reflects the wider labour force, where migrants may be concentrated in unregulated and undocumented work. The current data relate to the regulated

and documented element of the care workforce, and within this, there appear to be no stark differences in migrants' pay rates.

Table 6 Hourly pay statistics for British and migrant workers in the care sector by main job role

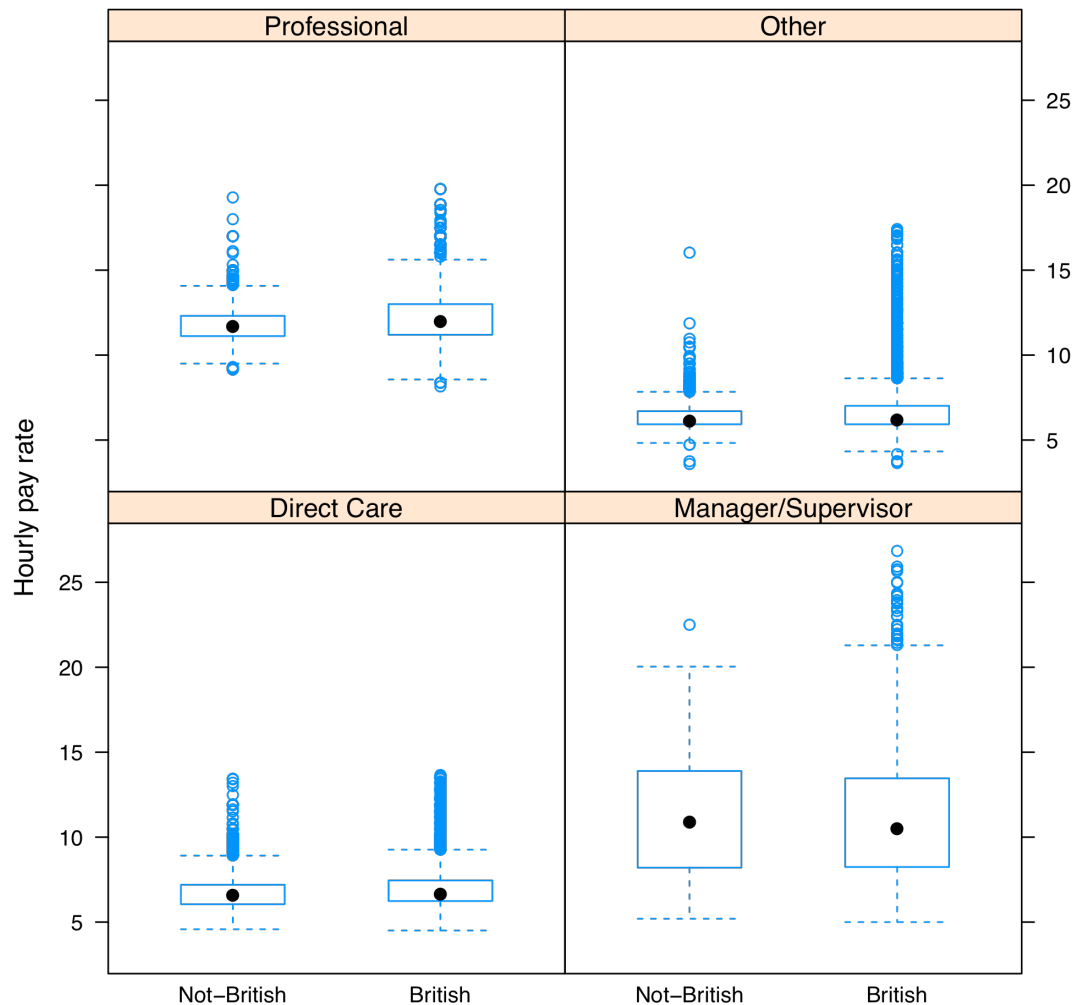
<i>Main job role</i>	<i>Hourly pay rates' statistics</i>							
	<i>Not British</i>				<i>British</i>			
	<i>Median</i>	<i>Mean</i>	<i>S.D</i>	<i>N</i>	<i>Median</i>	<i>Mean</i>	<i>S.D</i>	<i>N</i>
Care Worker	£6.50	£6.70	0.78	13,130	£6.60	£6.84	0.88	68,807
Registered Nurse	£11.70	£11.78	1.08	1,657	£11.85	£11.93	1.1	2,399
Senior Care Worker	£7.05	£7.21	0.92	1,517	£7.25	£7.40	1.12	8,036
Ancillary staff not care-providing	£6.08	£6.30	0.70	906	£6.04	£6.42	1.06	7,885
Community Support and Outreach Work	£7.00	£7.11	0.82	322	£6.95	£7.35	1.39	2,653
Other non-care-providing job roles	£6.14	£6.57	1.09	266	£6.26	£6.71	1.41	2,339
Supervisor	£8.46	£9.30	2.81	110	£8.50	£9.30	2.71	1,413
Other care-providing job role	£6.03	£6.62	1.06	103	£6.50	£6.76	1.00	904
First Line Manager	£10.91	£11.40	2.82	91	£10.07	£11.00	3.42	1,491
Registered Manager	£14.58	£13.97	2.93	83	£12.77	£12.93	3.02	1,307
Administrative or office staff not care-providing	£7.44	£7.50	1.22	70	£7.50	£7.74	1.6	1,770
Middle Management	£10.82	£11.05	3.13	45	£10.59	£11.40	3.69	715
Senior Management	£10.07	£10.91	4.29	34	£11.33	£11.70	3.95	597
Managers and staff in care-related but not care-providing roles	£9.89	£10.51	2.95	17	£10.50	£11.36	4.38	546

Figure 7 presents box-plots representations of hourly pay rates for migrant and British workers within the main four job role groups in the care sector⁴. A number of points are worth noting from Figure 7: first, there are some differences in mean and median hourly pay rates, with migrants receiving slightly lower pay; however, when job roles are broadly grouped these differences were statistically significant ($F=7.71$; $p=0.006$). For direct care workers the median hourly pay rate is £6.60 for migrants, compared to £6.67 for British workers. However, migrants who are working in managerial and supervisory roles earn more than British workers, the median hourly pay rate is £10.91 for migrants and £10.50 for British workers. Professionally qualified migrant workers, however, earn slightly less than their British counterparts

⁴ Grouped as: 1. 'Managers/supervisors': senior management, middle management, first line manager, register manager, supervisor, managers and staff in care-related jobs; 2. 'Direct care': senior care worker, care worker, community support, employment support, advice and advocacy, educational support, technician, other jobs directly involving care; 3. 'Professional': social workers, occupational therapists, registered nurse, allied health professional, qualified teacher; 4. 'Other': administrative staff, ancillary staff, and other job roles not directly involving care.

(£11.71 vs. £12) (noting that the number of local authority returns are not high and that this is where most professionally qualified staff are employed e.g. as social workers or occupational therapists).

Figure 7 Box-plots of hourly pay rates of migrant and British workers for the main four job groups in the care sector



There are a number of other important observations that can be deduced from Figure 7. Among professional staff, the distribution of hourly pay rates appears to be narrower for migrants than that of British workers, indicating that some British professional staff may earn considerably less or more than migrant workers. The latter supposition, may reflect a wider range of experiences among the British workers than that found among migrants; the fact that the first quartile of hourly pay rates is lower among British workers than migrants is interesting and may indicate certain experience among migrants working as professionals such as nurses (e.g. in care homes with nursing or social workers). While the distribution of hourly pay rates for direct care workers is almost identical for both migrants and British workers, a slightly lower median hourly rate is being received by migrants.

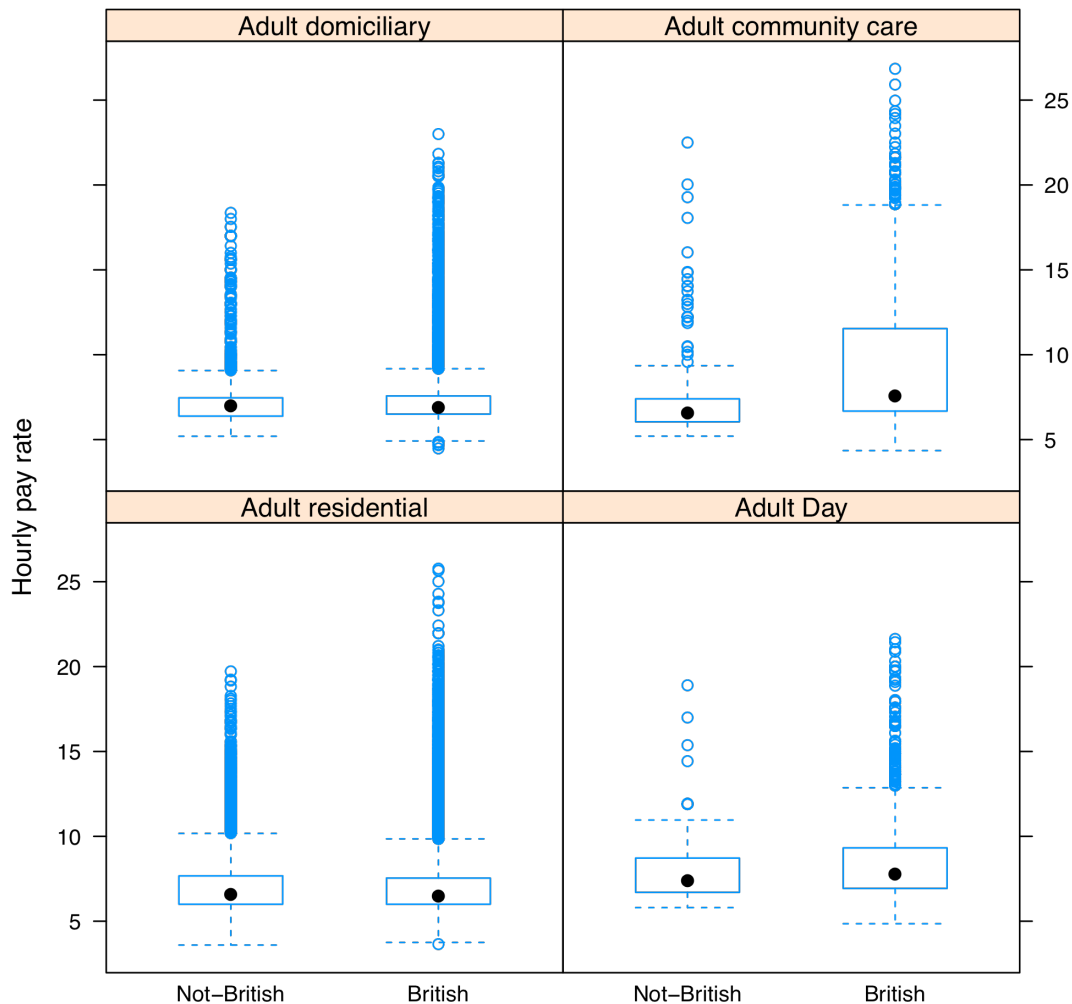
While previous data showed small but significant ethnicity pay-gaps, particularly among those working in professional jobs (see Issues 6 and 7); similarly the current data indicate the presence of migrant pay-gaps but not always on the same expected direction. Some of these variations may reflect different work patterns or specific skills matrices and it will be important to follow up with similar analysis when the returns on both nationality and pay rates increase in numbers within the NMDS-SC.

Migrant pay-gaps and type of settings

Previous analyses indicated that migrants might be concentrated in some care work settings than others (Hussein 2011), at the same time pay rates were also significantly associated with type of settings (Hussein 2010b). In terms of how much different migrants and British workers earn within each setting, Figure 8 shows that the median hourly rate of migrant workers is close to that of British workers in residential and domiciliary care settings. However, there were some variations within adult community care and day care settings. In adult domiciliary settings such as home care, migrant workers earn on average £7.03 (median=£6.99; s.d.= 1.15) compared to £7.18 among British workers (median=£6.90; s.d.=1.29).

In adult residential care settings, migrant workers earn on average £7.43 per hour (median=£6.60; s.d.=2.11), which is slightly higher than the average £7.22 hourly rate of British workers in the same setting (median=£6.50; s.d.=2.00). In adult day care settings, the distribution of hourly pay rate is wider for the British workers, with the 3rd quartile bigger than that for migrant workers by almost £2 an hour. Migrant workers in adult day care settings earn on average £8.02 per hour which is more than 50p less than that earned by British workers in the same settings (mean=£8.55) these differences were significant ($F=7.71$; $p=0.006$). Similarly, the average hourly pay rate of migrant workers in adult community care settings was considerably lower than that of British workers. The mean hourly rate for migrants was £7.45 (median=6.59; s.d.=2.53), which is almost £2 lower than the hourly rate of British workers (£9.39; median=£7.60; s.d.=3.87). These differences might be related to specific job roles that are likely to be performed by migrants and British workers within adult community care settings. Further hierarchical quantitative analyses will be useful in understanding these differences more fully.

Figure 8 Box-plots of hourly pay rates of migrant and British workers within different work settings in the care sector



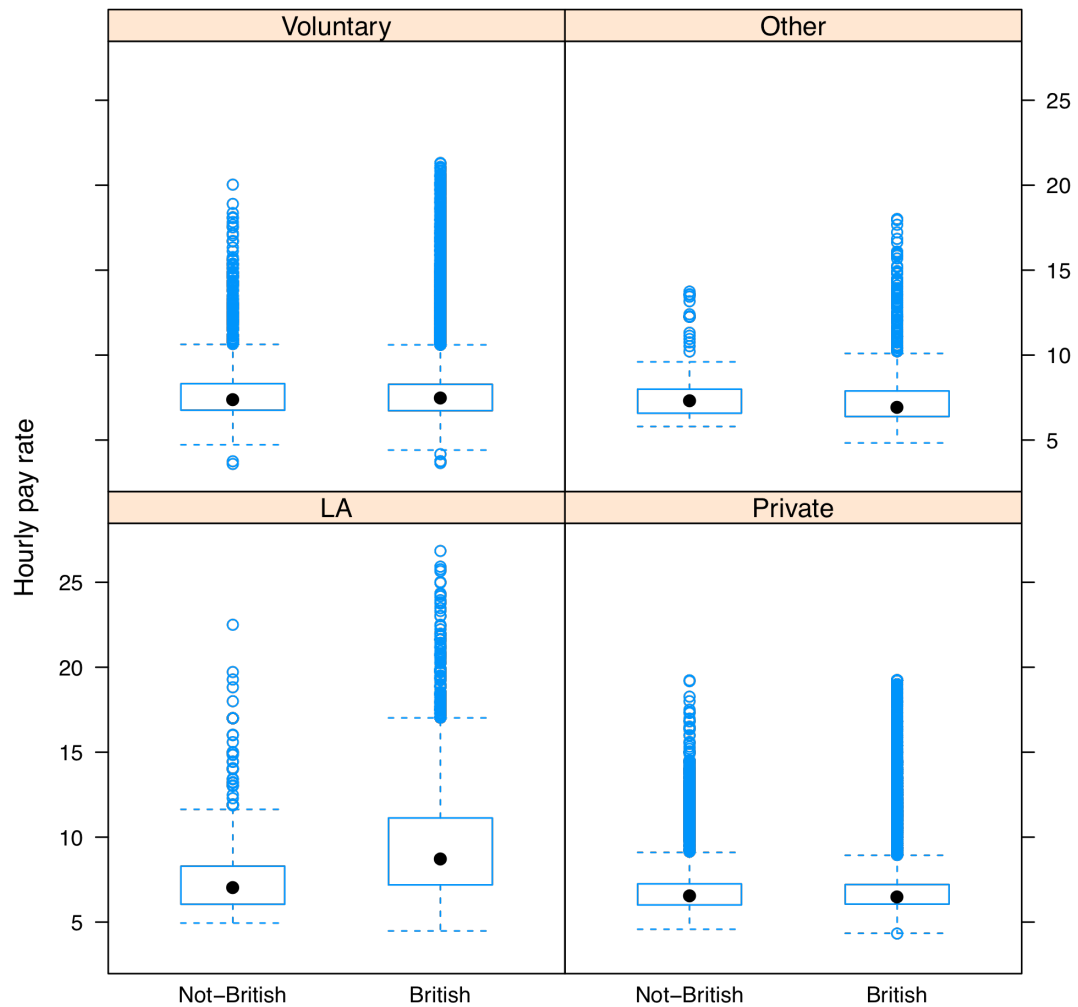
Migrant pay-gaps and sector of work

One of the strongest pay-gaps in the care sector is that related to sector, with pay rates particularly lower within the private sector. Figure 9 shows that overall migrants earn on average most if they work in the voluntary sector (mean hourly rate =£7.92; median £7.40) and least in the private sector (mean hourly rate=£7.15; median= £6.55). For British workers in the care sector the picture is slightly different, the lowest mean hourly rate remain within the private sector at £6.93 per hour (median= £6.50), but the highest average hourly rate is within the public sector, or local authorities, at £9.65 per hour (median= £8.72).

In terms of migrant pay-gaps, these are most prevalent within the public care sector, however, the current NMDS-SC returns under represents workers from local authorities. These results are consistent with those observed above in

relation to type of settings as most adult community care and day care centres are provided by the public sector (local authorities). In the private and voluntary sector the average hourly pay rate is almost identical for migrants and British workers (median hourly rates £7.40 and £7.50; and £6.55 and £6.50 respectively).

Figure 9 Box-plots of hourly pay rates of migrant and British workers by sector (local authority, private, voluntary or other)



III. How distinctive is the profile of migrant workers in the care sector?

Previous quantitative and qualitative analyses of the profile of migrants working in the care sector highlight a number of variations, particularly in relation to gender and age (Hussein et al 2011c; Cangiano et al 2009). Here we use the rich data of the NMDS-SC to examine the specific profile of migrant workers in the sector while controlling for a number of factors. We are particularly interested in investigating where migrant workers work and what particular jobs they are more likely to perform. Are they employed more in care providers or settings where vacancy rates and turnover are particularly high? Do they have a particular personal profile?

The NMDS-SC allows us to consider a number of personal and workplace characteristics simultaneously to investigate the distinctive profile of migrant workers within the care sector. A logistic regression model, as described in the Methods section, has been utilised for this analysis. On the personal level we included age, gender and reported disability. For employment conditions, we included both turnover and vacancy rates within the organisation and whether workers received induction (period at start of job to explain work and role) or not. We considered organisational characteristics such as sector of work, type of settings and size of organisation. We included in the model whether services are provided for particular groups of users, such as older people or adults with dementia; with mental health problems; with physical disabilities; learning disabilities, or sensory impairments. The model also controlled for the main job groups (roles) performed by the workers and took into account interactions between different characteristics. The aim of the model is to establish if migrant workers are more likely to be employed in certain provisions; perform certain jobs and if they have a distinctive personal profile from the British workers within the care sector.

Tables 7 and 8 present the distribution of migrant and British workers in the English care sector by all characteristics included in the regression model. In terms of personal characteristics, consistent with the literature, Table 7 shows that migrants are significantly younger than their British counterparts, with a mean age 37.6 years compared to 41.4 years ($F=1669.2$; $p<0.001$). Relatively larger numbers of migrant workers are men and relatively smaller proportions have any reported forms of disability. As the case with British workers in the sector, the majority of migrant workers work in direct care jobs, such as care workers or senior care workers, however, proportionally more of them work in 'other' jobs such as ancillary staff.

Table 7 Distribution of migrant and British workers with the care sector by different personal characteristics included in the regression model

<i>Personal variables included the model</i>	<i>British</i>		<i>Migrants</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Main job role				
Direct Care	108,878	74.9	22,835	81.1
Manager/Supervisor	12,453	8.6	779	2.8
Professional	4,686	3.2	2,534	9.0
Other	19,292	13.3	2,008	7.1
Gender				
Male	23,090	15.9	6,841	24.3
Female	122,219	84.1	21,315	75.7
Any reported disability	2,453	1.7	127	0.5
Mean Age	41.1 years		37.6 years	

Table 8 presents the distribution of migrant and British workers according to different organisational and service characteristics. The current data indicate that larger percentages of migrant workers have completed their induction in comparison to British workers (81.8% vs. 76.1%) and proportionally more work in the private sector (80.1% vs. 73%). Migrants were slightly over represented within large organisation⁵. The proportion of agency and temporary migrant workers is higher than that among British workers; and they tend to work in organisation with higher average staff turnover and vacancy rates (31.8% vs. 23.9% and 3.4% vs. 2.5%).

Table 8 also shows that migrant workers tend to work proportionally more in adult residential care settings and their prevalence is highest in services for older people/adults with dementia and lowest in services for older people/adults with sensory impermanent. These characteristics and some of their predicted interactions are entered to a logistic regression model in a forward-stepwise fashion with the outcome variable being '1' if the worker is migrant and '0' otherwise. The results of the final model, including significantly associated variables only, are presented in Table 9.

⁵ Grouped as 'micro' employers = less than 10 staff members, 'small' = 10-49 staff members, 'medium' = 50-199 and 'large' = 200 or more staff members.

Table 8 Distribution of migrant and British workers with the care sector by different organisational characteristics included in the regression model

<i>Organisational variables included the model</i>	<i>British</i>		<i>Migrants</i>	
	<i>N</i>	<i>%</i>		<i>N</i>
Induction				
Induction complete	110,526	76.1	23,024	81.8
Induction in Progress	13,514	9.3	2,860	10.2
No induction	21,269	14.6	2,272	8.1
Sector				
Local Authority	6,139	4.2	914	3.2
Private	106,061	73.0	22,564	80.1
Voluntary	29,138	20.1	4,304	15.3
Other	3,971	2.7	374	1.3
Organisation size				
Micro	8,224	5.7	2,080	7.4
Small	70,429	48.5	13,286	47.2
Medium	59,073	40.7	11,432	40.6
Large	7,583	5.2	1,358	4.8
Employment status				
Permanent	127,020	87.4	20,508	72.8
Temporary	5,706	3.9	2,086	7.4
Agency	2,626	1.8	1,687	6.0
Other	9,957	6.9	3,875	13.8
Work pattern				
Full-time	73,478	50.6	14,889	52.9
Part-time	55,637	38.3	8,386	29.8
Neither of these	16,194	11.1	4,881	17.3
Work Setting				
Adult residential	78,940	54.3	17,449	62.0
Adult Day	2,937	2.0	158	0.6
Adult domiciliary	52,042	35.8	9,083	32.3
Adult community care	4,893	3.4	440	1.6
Children's services	2,635	1.8	207	0.7
Healthcare	55	0.0	48	0.2
Other	3,807	2.6	771	2.7
Users' groups⁶				
Dementia	73,859	50.8	15,618	55.5
Mental health	69,756	48.0	12,541	44.5
Physical disabilities	72,894	50.2	13,313	47.3
Sensory disabilities	58,763	40.4	9,385	33.3
Learning disabilities	75,580	52.0	12,094	43.0
Mean vacancy rate within establishment				
		2.5 %		3.4 %
Mean turnover rate within establishment				
		23.9 %		31.8 %
Total number of cases in the model⁷				
		145,309		28,156

⁶ Services are usually provided for users with different needs within the same organisation. Users needs relate to older people or adults only.

⁷ Total number of cases included in the model is smaller than total number of records with information on nationality due to list-wise deletions

The results of the final regression model, presented in Table 9, highlight a number of important characteristics of the personal profile of migrant workers as well as the likelihood of where they are utilised most within the sector. On the personal level, the model confirms previous evidence that migrants working in the care sector are significantly younger; more likely to be men; and significantly less likely to have any form of disability than their British counterparts ($p < 0.001$ for the three characteristics). In terms of where migrants are concentrated within the sector, the results of the model indicate that the likelihood of employing migrant workers is significantly positively associated with both high turnover rates or vacancy rates ($p = 0.009$ and 0.017 respectively). The same likelihood is also associated with sector of work, with the likelihood of employing migrants being significantly higher within the private and voluntary sector; particularly if organisations within the private sector have high turnover rates (see interaction terms).

The analysis shows that migrants are more likely to have completed their induction (than still in progress or not received); perhaps indicating awareness among employers of the importance of induction to and for migrant workers and prioritising such processes for them. One of the strongest associations was observed in relation to organisational size. Migrants are significantly more likely to be employed within large organisations. Such findings may relate to strong links between large organisations and employment or recruitment agencies but also may reflect the under-representations of 'micro' employers within the current returns of the NMDS-SC.

In terms of type of services and user groups, migrant workers are significantly more likely to be working in adult residential settings than any other settings (such as domiciliary and day care). They are also significantly more likely to be working with adults/older people with dementia followed by those with physical disabilities. On the other hand, migrant workers are significantly less likely to be working within organisations providing services to adults/older people with mental health needs, or people with sensory or learning disabilities.

Migrant workers are more likely to be working in direct care or professional jobs ($p < 0.001$). They are significantly more likely to be working through agencies ($p < 0.001$), less likely to have permanent jobs ($p < 0.001$), and significantly more likely to be working full time than part time or through flexible work arrangements ($p < 0.001$).

Table 9 Results of the final logistic regression model for migrants' workers personal and employment profile

Significant variables in the final model	Odds Ratio	Confidence Interval		p-value
		2.50%	97.50%	
Age†	0.98	0.98	0.98	<0.001***
Turnover rate†	1.04	0.99	1.06	0.009**
Vacancy rate†	1.02	1.00	1.04	0.017*
Women vs. men	0.52	0.51	0.54	<0.001***
Any disability	0.31	0.26	0.37	<0.001***
Induction (ref- completed)				
Induction in Progress	0.83	0.80	0.87	<0.001***
Not received	0.63	0.60	0.66	<0.001***
Sector (ref Other)				
Private	2.37	1.58	3.69	<0.001***
Voluntary	2.55	1.68	4.01	<0.001***
Local authority	1.90	1.05	3.44	0.033*
Org size (ref micro)				
Small	1.42	0.94	2.22	0.108
Medium	1.06	0.70	1.66	0.778
Large	34.12	5.65	202.99	<0.001***
Setting (ref: adults residential)				
Adult Day	0.32	0.27	0.38	<0.001***
Adult domiciliary	0.74	0.71	0.77	<0.001***
Adult community care	0.45	0.40	0.50	<0.001***
Other	0.65	0.59	0.71	<0.001***
Main job role (ref Direct care)				
Manager/Supervisor	0.36	0.33	0.39	<0.001***
Professional	2.63	2.49	2.78	<0.001***
Other	0.51	0.49	0.54	<0.001***
Employment status (ref other)				
Permanent	0.34	0.33	0.36	<0.001***
Temporary	0.96	0.90	1.03	0.189
Agency	1.64	1.51	1.78	<0.001***
Work Pattern (ref full time)				
Part-time	0.69	0.66	0.71	<0.001***
Neither of these	0.59	0.56	0.63	<0.001***
Users' group (ref Not working with this group)				
Dementia	1.28	1.24	1.32	<0.001***
Mental health	0.90	0.86	0.93	<0.001***
Physical disabilities	1.09	1.05	1.14	<0.001***
Sensory disabilities	0.76	0.73	0.79	<0.001***
Learning disabilities	0.71	0.68	0.73	<0.001***
Interaction: Sector and turnover rate				
Local authority & turnover	1.03	1.00	1.06	0.017*
Private & turnover	1.08	1.00	1.10	0.008**
Voluntary & turnover	1.04	1.00	1.07	0.004**

† Used as continuous variable in the model

Discussion and conclusion

The analysis presented in this *Issue* of the *Social Care Workforce Periodical* focuses on migrant workers within the English social care sector. It follows on the analyses and findings presented in *Issue 11* utilising a large national sample of social care workers about whom there is nationality information obtained through the National Minimum Data Set for Social Care (NMDS-SC). The current data provide the most up to date information on a very large sample of migrant workers within the care sector. However, the data have a number of limitations, these are discussed further in the Methods section but they are to do with possible reporting biases and consequently accuracy issues. The data are concerned with main characteristics and serve the purpose of highlighting observed differences and similarities in a number of personal and organisations characteristics between migrants and British workers within the sector. They lack, however, other dimensions into migrations' motivations, skills history or future plans. Nevertheless, the data and quantitative analysis presented in these two *Issues* address an existing knowledge gap in relation to the contribution, characteristics and distribution of migrant workers within the long-term care sector. Such findings complement recent national qualitative research into migrant workers in the care sector in the UK, such as those conducted by Cangiano and colleagues (2009) and Hussein and colleagues (2010). A number of important findings can be concluded from the current analyses, which are relevant to current immigration and social care policies and their interaction.

The analyses reveal that migrants constitute a considerable proportion of the long-term care workforce in England, such contributions appear to be increasing year on year. The majority of migrants working in the sector are from non-EEA countries, the very people who will be affected by the new immigration-cap on non-EU migrants. Indeed, there is a growing contribution in the sector from A2 and A8 nationals; however, proportionally they only form a small portion of migrants within the sector. The trends' analysis also suggests a dip in new workers entering the UK from A8 countries during the past few years. Such observations mirror other research on A8 labour movement, when a surge of movement was observed during the first years of joining the EU followed by a slowdown. However, more workers from all nationality groups continued to enter new employment within the sector, suggesting a possible shift toward employing existing migrants from the UK. The trends' analysis suggests that it is likely that the effect of non-EU immigration cap will be substantial on the long-term care workforce in England, and it does not seem feasible, at least in the short term, that A2 and A8 migrants will substitute for the loss.

Considering data on arrival to the UK and joining the sector as well as current employment, A2 and A8 nationals have the fastest tempo of joining the sector after arrival, perhaps indicating prior links with the UK sector through recruitment agencies while in their home countries or substantial contact with others working in the sector. The picture for other EEA nationals appear to be

different, with high average number of years between arrival and joining the sector, suggesting different migration motivations to those among A2 and A8 nationals. The latter group are likely to be following other family members and then might be joining the care sector after spending several years in the UK. The available data also suggest that non-EEA nationals are likely to be retained or choose to stay within the sector.

The pay analysis reveals no significant migrant-pay differentials within specific job roles; however, some differences are observed in relation to sector and type of settings and when job roles were broadly grouped. Migrants earn significantly less than British workers within the public sector and in community care settings. Some of these differences may be related to the current under-representation of local authorities within the NMDS-SC. Consistent with previous analyses (Hussein 2010a and 2010b) both migrant and British workers earn least in the private sector. The regression analysis confirms that migrants are used most where working conditions are most difficult and where jobs can be particularly hard to fill. In addition to the significant contribution of migrants in London, as discussed in *Issue 11*, where recruitment and retention problems are generally most pronounced, they are significantly more likely to be employed within the private sector and in provision where turnover and vacancy rates are high. They are also significantly more likely to be working within organisations providing services to people who are perceived to be particularly challenging or with high level needs such as adults /older people with dementia.

A number of policy questions arise from the analyses; first, how employers are going to deal with the increasing demand for social care if the large pool of non-EEA migrant workers ceases to be available? Will there be enough additional supply within the UK or from A2 and A8 countries to meet these staffing needs? How this will affect the requirements for certain skills, currently met by the contribution of non-EEA nursing staff to the sector? Another set of questions relates to working conditions, particularly among migrant workers in the care sector and how these may affect their burnout and job satisfaction levels and subsequent affect quality of services and their own mental and general health? It is well documented that migrants, in general, face a considerable set of social cultural, financial challenges and due to their lower labour power, they may be offered unfavourable working conditions (MacKenzie and Forde, 2009). These may be exacerbated by working in particularly difficult conditions, where vacancy and turnover rates are high, and concentrated in the private, and residential care settings where workloads are considerable.

It is positive that migrant workers within the care sector were significantly more likely to have completed their induction, however, the current data do not allow the examination of the content of such induction. Previous qualitative research indicates that the content of induction for migrants is likely to be very much the same as that provided to other workers, which may be not sufficient to address differences in care cultures or offer enough guidance to care work systems within the UK. The current analyses provide valuable insight into a number of matters that need to be addressed by the sector and its stakeholders to ensure that the contribution of migrants to the care sector is both appreciated and

utilised in the best ways. Employers need to be aware of the multiple challenges and barriers that may be faced by migrants working in the sector and take steps to provide support and guidance and to develop this workforce.

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