

## Changes in turnover and vacancy rates of care workers in England from 2008 to 2010: panel analysis of national workforce data

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### What is known about this topic

- Concern is long-standing about high vacancy and turnover rates in the care sector.
- Vacancy and turnover rates are associated with employment contexts.
- Pay rates of care workers are among the lowest in the United Kingdom labour market.

### What this paper adds

- Turnover rates have remained constantly high over a period of 2 years while vacancy rates have slightly decreased.
- Panel analysis indicates variable experiences among individual employers while average change in turnover rate was minimal.
- Home-care providers are over-represented within organisations experiencing increases in turnover rates.

### Introduction

It is frequently observed that changing demographics and an ageing population are increasing the demand for social care while traditional pools of social care staff are shrinking (Hussein & Manthorpe 2005). At the same time, the need to improve the quality of social care services has led to calls for more staff to be trained (Cavendish 2013). The combination of growing demand and higher expectations needs to be set in the context of fears about the sustainability of

### Abstract

The combination of growing demand for long-term care and higher expectations of care staff needs to be set in the context of long-standing concerns about the sustainability of recruitment and retention of front-line staff in the United Kingdom. Organisational and work environment factors are associated with vacancy levels and turnover rates. The aim of the current analysis was to investigate changes in turnover and vacancy rates over time experienced by a sample of social care employers in England. Taking a follow-up approach offers potentially more accurate estimates of changes in turnover and vacancy rates, and enables the identification of any different organisational characteristics which may be linked to reductions in these elements over time. The study constructed a panel of 2964 care providers (employers) using 18 separate data sets from the National Minimum Data Set for Social Care during 2008–2010. The findings indicate slight reductions in vacancy rates but the presence of enduring, high turnover rates among direct care workers over the study period. However, the experience of individual employers varied, with home-care providers experiencing significantly higher turnover rates than other parts of the sector. These findings raise questions around the quality and motivations of new recruits and methods of reducing specific vacancy levels. At a time of increased emphasis on care at home, it is worthwhile examining why care homes appear to have greater stability of staff and fewer vacancies than home-care agencies.

**Keywords:** longitudinal analysis, long-term care, national data, recruitment, retention, social care, workforce

recruitment and retention of front-line staff (Skills for Care 2014). In the United Kingdom (UK), concern is long-standing about high vacancy and turnover rates in all settings of the care sector, particularly in relation to front-line staff, such as care workers (Donoghue 2009). In 2011, a survey conducted by the National Care Forum (NCF) (voluntary sector care homes in the main) of its member organisations found that over 40% of care home front-line staff had left their job within a year of taking up their post (National Care Forum (NCF) 2011). High vacancy

and turnover rates have been associated with employment context, such as sector of employment (private vs. public) and employment conditions, such as paid sick leave and health insurance (Loan-Clarke *et al.* 2010, Rosen *et al.* 2011). The type and nature of setting and the way work is organised may also affect the impact of organisational characteristics on individual workers. For example, in domiciliary or home care, the lack of a fixed workplace means that levels and effects of management and co-workers are likely to be different from those within care homes.

In England, direct care workers comprise 72% of the care sector's workforce, an estimated 1.2 million workers (Skills for Care 2010). Overall, pay rates are among the lowest in the UK with the majority of wages on or near the National Minimum Wage (Hussein 2011a, Low Pay Commission 2011); this is particularly the case in the growing home-care sector (Rubery *et al.* 2011, Bessa *et al.* 2013). In England, previous analysis of workforce data revealed that while vacancy rates among direct care staff were relatively low in the private or commercial sector, turnover rates were highest among private care providers, which might be related to pay levels (Hussein 2009).

Several models of staff turnover exist in the economic, human resource and organisational literature. Many highlight the high association of turnover with individual job satisfaction (e.g. Parsons *et al.* 2003). Organisation and work environment factors, such as management styles, team support and working conditions, play important roles in staff retention (Castle & Engberg 2006). Some of the most commonly cited organisational predictors of turnover include staffing levels (including organisation size), senior management turnover and profit status (public, private and not-for-profit or charitable). Workload level, pay and working conditions are associated with the profits expected by different organisations. The same factors are also linked with care worker job satisfaction and intention to leave. However, United States' (US) research shows that effects of these factors on turnover vary by type of services provided and local economic conditions (Castle 2008, Donoghue 2009).

The consequences of turnover and vacancies among care workers, whether in care homes or home-care services, are extensive (Ball *et al.* 2013). The economic costs alone of high turnover and vacancy rate are considerable if training, loss of skills and experience, and recruitment and induction costs are taken into account. High levels of vacancies and turnover rates also impact on service quality in different ways. The most apparent one is the level of risk associated with an understaffed service or with staff who do not have enough experience or skills to meet

users' needs. In the US, Castle and Engberg (2005) showed a significant association between different indicators of quality of care and turnover rates of nursing aides (generally equivalent to care home workers in the UK).

The aim of the current analysis was to investigate changes in turnover and vacancy rates over time experienced by a sample of employers in England. This has become possible with the availability of national data, the analysis of which is able to link the experience of individual employers over time, thus reflecting real changes instead of average change. Taking a follow-up approach offers potentially more accurate estimates of changes in turnover and vacancy rates and enables the identification of any different organisational characteristics which are linked to reductions in these elements over time. Our specific aims were to investigate the following two questions:

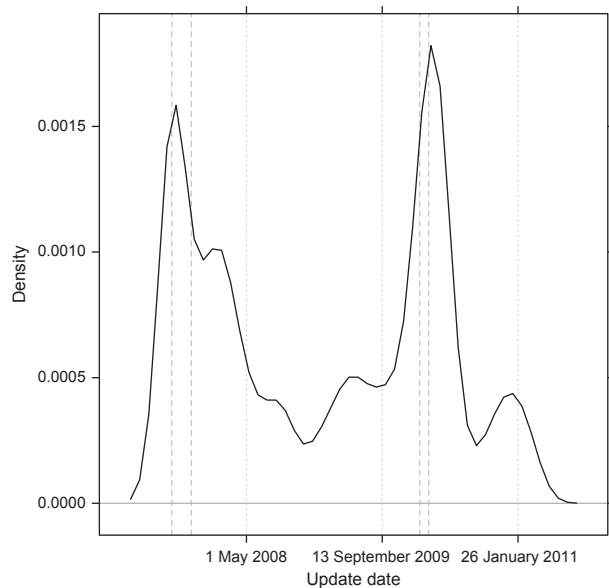
- 1 Have reported turnover and vacancy rates among care workers changed over the period of study and in what ways?
- 2 What are the characteristics of organisations which reported an improvement (a decline) in care worker turnover and vacancy rates compared to those which experienced higher turnover and greater vacancies?

## Methods and data

The National Minimum Data Set for Social Care (NMDS-SC), launched in 2007, gathers standardised workforce information for the social care sector in England. It provides a 'minimum' set of information about services and staff across all service user groups and sectors within the social care sector in England (establishment data set). Employers provide information about individual staff members offering a detailed picture of the workforce (individual workers data set). The data holder (Skills for Care) archives the data from time to time; during this process, older records may disappear from newer data sets. To capture as several events, we requested data sets that were 3 months apart during the period of interest. The research team already possessed other data released at additional time points during this period, this resulted in a total of 18 separate NMDS-SC data sets spanning the period December 2007 to March 2011, with the number of records ranging from 13,095 to 25,266 in each data set, covering 421,671 providers' records (including updates). Specifically, we were interested in investigating the experience of the same employers over time. The data were

completely anonymised with an identification code allowing the linkage of the experience of the same employer over time. The project was discussed with (King's College London) research ethics panel, and was judged to present no risk as all data are anonymised and thus ethical approval was not required. Following up the same group of care providers has advantages over repeated cross-sectional analysis as it provides a more accurate picture of change over time. For the current analysis, we focused on examining changes occurring within the same group of providers (employers) with at least two updated events over a period of 18 months, which offered sufficient time to observe any patterns of change.

Figure 1 shows the density distribution plot of the updates of this group over time, indicating two clear time points with 'peak' number of records. For the current analysis, we defined two data points, March 2008 (T1) and September 2009 (T2), allowing  $\pm 3$  months margin at each time point, with an average of 18 months difference between T1 and T2, thus covering the period from the beginning of January 2008 to January 2010. Using 18 NMDS-SC data sets, we included any provider with two updates in the regions of T1 and T2 resulting in a panel sample of 2964 providers. We conducted several data quality checks on the panel sample, including comparing main organisational characteristics over time. Overall, the panel sample was sufficiently representative of the overall NMDS-SC returns at T1 (Table 1; for full details, see Hussein & Manthorpe 2011). The study is limited in that it reflects the experience of a sample of



**Figure 1** Density distribution plot of providers with at least two updates during the period December 2007 to March 2011.

employers in the social care sector, which had not been constructed as a representative sample of the whole population of employers. However, the sample is large in size and is representative of the larger group of social care employers completing the NMDS-SC, which is the most comprehensive data set on this workforce in England.

We calculate turnover rate as the number of care workers who left their employer within the past 12 months of the data collection point as a proportion of number of care workers in permanent and temporary work arrangements at the time of data collection. Vacancy rate was calculated as the proportion of care work jobs vacant at each of T1 and T2 time points. We focused on key employers' characteristics including region, sector, type of setting and organisation size in relation to changes in vacancy and turnover rates of care workers over time. Changes over time were examined using paired *t*-test and none of the data items were weighted or corrected during the analysis. C++ programming (GCC compiler) was employed to

**Table 1** Distribution of panel sample of providers compared to that of NMDS-SC overall returns in March 2008

	Panel sample		NMDS-SC Mar 2008	
	<i>n</i>	%	<i>n</i>	%
<b>Sector</b>				
Local Authority (Adult)	116	3.9	1188	6.8
Local Authority (Children)	4	0.1	87	0.5
Local Authority (Generic)	18	0.6	67	0.4
Local Authority owned	9	0.3	175	1
Health	6	0.2	111	0.6
Private	1850	62.7	10882	61.9
Voluntary	783	26.5	4435	25.2
Other	167	5.7	641	3.6
<b>Total</b>	<b>2953</b>	<b>100</b>	<b>17586</b>	<b>100</b>
<b>Organisation size</b>				
Micro	538	19.7	4102	24.3
Small	1696	62.1	10078	59.8
Medium	484	17.7	2585	15.3
Large	15	0.5	92	0.6
<b>Total</b>	<b>2733</b>	<b>100</b>	<b>16857</b>	<b>100</b>
<b>Region</b>				
Eastern	255	8.6	2232	12.6
East Midlands	260	8.8	1549	8.7
London	274	9.2	3076	17.3
North East	101	3.4	880	4.9
North West	328	11.1	2673	15
South East	781	26.4	2769	15.5
South West	372	12.5	1706	9.6
West Midlands	331	11.2	1789	10
Yorkshire & Humber	262	8.8	1140	6.4
<b>Total</b>	<b>2964</b>	<b>100</b>	<b>17814</b>	<b>100</b>

construct the panel and the statistical analysis was completed on R-Unix statistical environment.

## Findings

### Care worker turnover and vacancy rates 2008–2010

For the panel of providers examined in this study, the overall turnover rate remained almost unchanged during the period 2008–2010. The mean turnover rate was 22.5% in T1 (median = 14.29) and 22.9% in T2 (median = 14.29). This means that, on average, around a quarter (23%) of the care workforce changed their jobs within the previous 12 months prior to March 2008, with similar workforce traffic 18 months later. The longitudinal analysis indicates that mean care worker vacancy rate declined from 4.6% in T1 to 3.9% in T2.

#### Regional variations

Table 2 indicates that care worker turnover rates are lowest among providers located in London both in 2008 and 2010; however, they increased by 2.2% over the same period. By January 2010, care worker turnover rate was highest in the East and West Midlands and the South West of England (25%–26%). The largest increases in care worker turnover rates were in the North West and the South West; however, none of these changes from T1 to T2 was statistically significant.

Table 2 also shows that care worker vacancy rate was highest in London, particularly at T2; this may be related to the high cost of living in the capital relative to the overall low levels of pay in the sector. On the other hand, it remained lowest in the North West and Yorkshire & Humber regions. Care worker

vacancy rates declined in all regions over 2008–2010 except in London where they increased by 1.5%; however, this was not statistically significant. When examining changes in vacancy rates within individual providers in different regions, the most pronounced reductions took place in the West Midlands and the South East. However, such reductions were not statistically significant ( $P = 0.08$  and  $0.09$  respectively).

#### Organisational factors

**Sector.** Sector is one of the most important characteristics associated with different measures of workforce stability in social care as it reflects the profit or non-profit status of providers. Previous analysis using the NMDS-SC revealed turnover rates to be generally higher for different job roles within the private sector than other sectors (Hussein 2009). The private sector generally provides less favourable working conditions and lower levels of pay than the public and voluntary or not-for-profit sectors (Rubery *et al.* 2011). The analysis showed that care worker turnover rate was highest among private providers, especially in T1 (25% at T1 and 24.8% at T2); this compared to only 10.6% in the public sector (local authorities) at T1 and 8% in T2. Care worker turnover rates among providers from other sectors (including a very small number in the National Health Service) stood at 20% in T1 and increased to 23.9% by T2. The analysis indicated that turnover rates did not significantly change over the period of analysis in the main three sectors: public, private and voluntary. Moreover, in the private sector, the median care worker turnover rate declined slightly from 16.7% to 15.4%.

The current longitudinal analysis, which focuses only on direct care workers (not managers), reveals

**Table 2** Care worker mean turnover and vacancy rates at T1 and T2 by region

Region	Number of providers	Turnover			Vacancy		
		Mean turnover rate		Paired <i>t</i> -test	Mean vacancy rate		Paired <i>t</i> -test
		T1	T2		T1	T2	
Eastern	255	22.6	21.2	−0.56	4.1	2.6	−1.61
East Midlands	260	26.8	25	−0.53	3.9	2.8	−0.99
London	274	15.5	17.7	0.78	6.0	7.5	0.88
North East	101	20.4	18.5	−0.37	6.3	4.3	−1.62
North West	328	18.9	22.1	1.3	2.5	2.3	−0.27
South East	781	23.2	22	−0.63	5.4	4.4	−1.66
South West	372	22.9	26	1.13	5.1	3.7	−1.48
West Midlands	331	23.9	25.7	0.64	5.0	3.4	−1.74
Yorkshire & Humber	262	23.3	23.9	0.26	3.3	2.4	1.58

None of the above changes were statistically significant.

that care worker vacancy rates declined in all sectors over 2008–2010. By January 2010, the mean vacancy rate among private providers was 3.7%, which is very close to the 3.3% among providers in the voluntary sector and slightly higher than that in local authority (public) providers. Figure 2 shows that vacancy rates varied more widely among individual public sector providers, while differences were much narrower among private and voluntary organisations. The reductions observed in vacancy rates within individual providers were significant for those in both the private and voluntary sector, while not significant for public sector providers.

**Organisation size.** Turnover rate was significantly lower within larger organisations (with 200 employees or more); however, the number of large organisations in the sample was relatively small ( $n = 15$  at T1 to 18 at T2). We investigated individual changes over time in turnover rates for different groups of providers according to the size of organisation (grouped as: micro employers = less than 10 staff members, small = 10–49 staff members, medium = 50–199 and large = 200 or more staff members). Figure 3 shows that organisations of all sizes experienced reductions in care worker vacancy rates from T1 to T2. Vacancy rates were lowest within large organisations, although reductions in vacancy rates were not significant among this group of providers. Micro organisations (employing fewer than 10 staff members) experienced the largest decline in the mean vacancy rate from 8.2% in T1 to 6.2% in T2. Significant reductions were also observed among

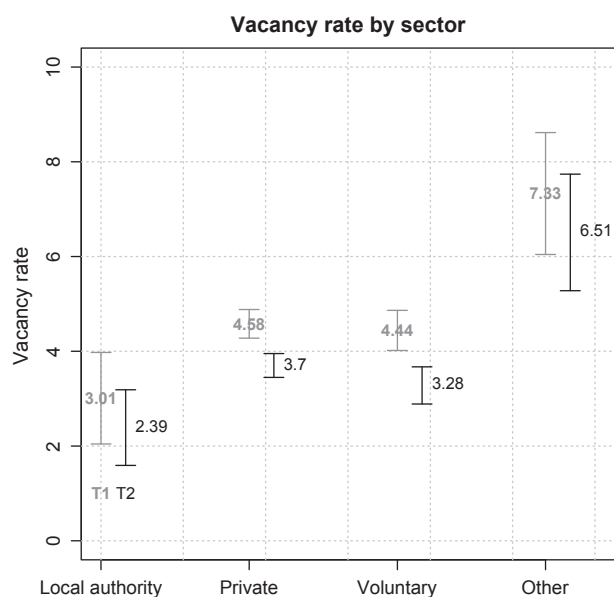
small- and medium-sized employers (from 4.1 to 3.5 and 3.9 to 2.6 respectively).

**Type of care settings.** Care worker turnover rates were considerably lower among settings providing nursing care (such as care homes with nursing or home nursing as part of social care) when compared with other services. Table 3 shows that turnover rate in this part of the social care sector was only 4.2% at T1 with a slight increase to 5.7% by T2. Care worker turnover rate was highest in adult residential care (care homes without nursing care) and adult domiciliary care (home care) settings. Little other change in turnover rate was observable by type of care setting.

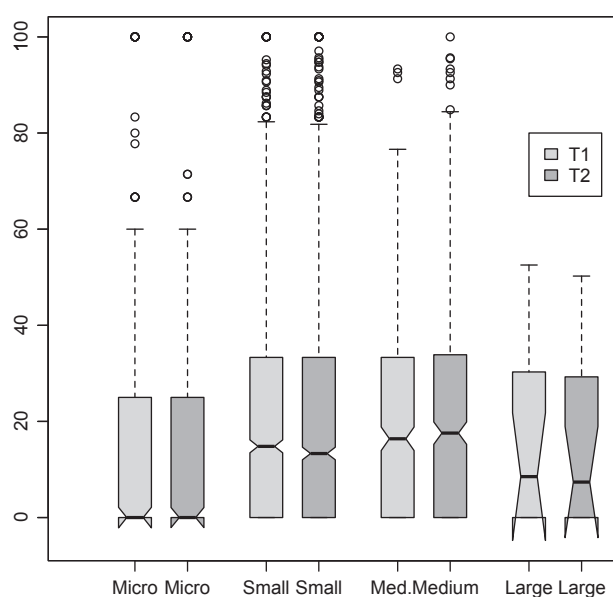
Vacancy rates varied considerably by type of care setting, with lowest vacancy rates being in adult day care and health services (at T2: 1% and 0.7% respectively). On the other hand, care worker vacancy rates were considerably high in home-care services (at T2: 5%). Table 3 indicates that, in terms of change, all employers within different settings experienced reductions in care worker vacancy rates. However, such reductions were only significant for adult residential providers (care homes) (paired  $t = -2.54$ ,  $P = 0.01$ ).

### Changes in care worker turnover rates 2008–2010

Turnover rates remained the same for just over half of the panel sample (54.4%,  $n = 1165$ ), while 26.7% ( $n = 644$ ) of providers experienced an increase in care worker turnover rate. An almost equal proportion of



**Figure 2** Mean and confidence intervals of care worker vacancy rate at T1 and T2 by sector.



**Figure 3** Care worker turnover rate distributions at T1 and T2 by organisation size.

**Table 3** Care worker mean turnover and vacancy rates at T1 and T2 by type of care settings

Type of care setting	Number of providers	Turnover			Vacancy		
		Care worker mean turnover rate		Paired <i>t</i> -test	Care worker mean vacancy rate		Paired <i>t</i> -test
		T1	T2		T1	T2	
Adult – residential	2021	23.7	23.8	0.11	4.3	3.5	–2.54
Adult – day care	123	14.1	15.4	0.34	2.1	1	–1.15
Adult – domiciliary	623	21.5	22.8	0.74	6.4	5	–1.46
Health	43	4.2	5.7	0.42	0.7	0.7	–0.01
Other	108	15.2	24.1	0.85	10.5	3.5	–1.2

None of the above changes were statistically significant.

providers (25.1%,  $n = 606$ ) experienced an improvement (decline) in their care worker turnover rate. Table 4 shows that the mean change in turnover rate across individual providers from T1 to T2 increased by 1.1% (CI –2.4% to 0.2%; however not significant; paired  $t = -1.7$ ;  $P = 0.094$ ). Changes within individual organisations varied significantly. For the 644 providers who reported an increase in turnover rates, the mean change for individual employers was a staggering 30% (CI –31.8% to –26.1%; paired  $t = -19.8$ ;  $P < 0.001$ ). However, another group of 644 providers experienced improvements in their individual turnover rates, with an average significant reduction of 26.3% (CI 23.5%–29.2%; paired  $t = 18$ ;  $P < 0.001$ ).

It is clear from the analysis that two distinct groups of providers were identifiable: the first group ( $n = 644$ ) started with a relatively low turnover rate (mean of 15%) but experienced significant increases and the second was an almost equal number of providers ( $n = 606$ ) starting with a relatively high turnover rate (43.2%) where, over a period of 18 months, this turnover rate had declined significantly (see Table 4).

Table 5 provides an analysis of the distribution of providers in three groups: (i) those who experienced no change in care worker turnover or vacancy rate over the period of study; (ii) those who experienced increases in turnover or vacancy rates; and (iii) those who experienced declines in turnover or

**Table 4** Changes in care worker turnover and vacancy rates for all panel providers and the two groups experiencing increases and decreases in turnover and vacancy rates from T1 to T2

Care worker turnover rate statistics	All panel providers	Providers with increased turnover rate	Providers with decreased turnover rate
Number of providers	2415	644	606
Mean turnover rate at T1	22.5	15.0	43.2
Mean turnover rate at T2	22.9	43.9	16.9
Paired mean change	–1.1	–30.0	26.3
95% CI – lower bound	–2.4	–31.8	23.5
95% CI – upper bound	0.2	–26.1	29.2
Paired <i>t</i> -test value	–1.7	–19.8	18.0
Significance ( <i>P</i> -value)	0.094	<0.001	<0.001
Care worker vacancy rate statistics	All providers included	Providers with increased vacancy rate	Providers with decreased vacancy rate
Number of providers	2433	201	348
Mean vacancy rate at T1	4.6	5.4	18.7
Mean vacancy rate at T2	3.9	19.8	4.9
Mean change in vacancy rate for individual providers	–0.8	–14.4	13.7
95% CI of mean change in vacancy rate – lower bound	–1.6	–12.2	12.1
95% CI of mean change in vacancy rate – upper bound	–0.4	–16.6	15.3
Paired <i>t</i> -test of change	–3.8	–13.0	16.6
Significance ( <i>P</i> -value)	<0.001	<0.001	<0.001

**Table 5** Distributions of providers with different changes in care worker turnover and vacancy rates from T1 to T2 by key organisational characteristics

Organisational characteristics	Turnover rates				Vacancy rates			
	No change (%)	Increased rates (%)	Decreased rates (%)	<i>n</i>	No change (%)	Increased rates (%)	Decreased rates (%)	<i>n</i>
<b>Sector</b>								
Local authority	53.3	24.1	22.7	72	78.7	8.7	12.6	72
Private	45.4	27.6	27.0	1608	78.0	8.3	13.8	1619
Voluntary	52.2	26.3	21.6	596	74.9	8.2	16.9	598
Other	61.7	19.1	19.2	142	81.1	8.5	10.4	144
<b>Size</b>								
Micro	60.1	21.0	18.9	359	79.4	8.1	12.5	368
Small	45.8	26.6	27.6	1583	77.7	8.6	13.7	1587
Medium	47.7	31.4	21.0	462	75.1	7.5	17.4	466
Large	48.5	16.1	35.4	12	64.3	0.0	35.7	12
<b>Region</b>								
Eastern	53.3	21.1	25.7	208	78.9	8.1	12.9	210
East Midlands	47.1	22.9	30.0	230	80.6	3.9	15.5	231
London	55.4	28.0	16.6	168	73.3	13.3	13.3	172
North East	58.1	18.5	23.4	80	83.9	6.2	9.9	81
North West	48.4	31.2	20.4	231	77.7	11.6	10.8	233
South East	49.7	24.6	25.7	682	75.0	9.1	15.9	685
South West	39.1	34.0	26.9	313	75.9	8.2	15.9	315
West Midlands	42.0	27.3	30.7	286	77.5	7.0	15.5	289
Yorkshire & Humber	52.3	28.0	19.7	218	83.0	5.5	11.5	218
<b>Type of setting</b>								
Adult – residential	46.8	26.8	26.4	1775	77.2	8.9	14.0	1782
Adult – day care	68.1	16.4	15.4	67	89.5	3.1	7.5	65
Adult – domiciliary	47.3	29.1	23.7	461	73.9	8.3	17.7	469
Health	83.3	16.7	0.0	31	89.5	3.4	7.1	29
Other	65.1	18.0	16.9	11	81.9	0.0	18.1	12
<b>Total</b>	<b>48.2</b>	<b>26.7</b>	<b>25.1</b>	<b>2415</b>	<b>77.4</b>	<b>8.3</b>	<b>14.3</b>	<b>2433</b>

vacancy rates. This analysis examines the movement of organisations to these different groups with distinct experiences of stability, increases or declines in care worker vacancy rates. Table 5 shows that voluntary sector providers were more likely to be found within the groups of providers with stable turnover rates when compared to those with improved or deteriorating turnover rates. Changes (positive or negative) were significantly more likely to occur within the private sector ( $\chi^2_{(6)} = 21.5$ ,  $P = 0.001$ ). Small organisations (10–49 workers) were significantly over-represented within providers with decreased (improved) turnover rate during the period of this study, while medium-sized organisations (50–199 workers) were over-represented among the group with increased (worse) turnover rates ( $\chi^2_{(6)} = 33.9$ ,  $P < 0.001$ ).

Some significant regional differences emerged in the distribution of providers within different groups. For example, London providers were significantly under-represented in the group with improved turnover rates. On the other hand, proportionally

more providers in East and West Midlands and South West were represented within the group of providers with improved turnover rates ( $\chi^2_{(16)} = 43.7$ ,  $P < 0.001$ ). In terms of type of service settings, adult residential providers (care homes in the main) were significantly over-represented within the group of providers with improved care worker turnover, while the opposite was true for adult domiciliary (home care) providers ( $\chi^2_{(12)} = 32.5$ ,  $P = 0.001$ ).

#### Changes in care worker vacancy rates 2008–2010

Overall, care worker vacancy rates declined from an average of 4.6% at T1 to 3.9% at T2, a significant reduction of nearly 1% (paired  $t = -3.85$ ,  $P < 0.001$ ). However, over three quarters of providers experienced no change in care worker vacancy rates over the period of study (77.4%,  $n = 1884$ ). The mean vacancy rate among this group of providers was 2% at both T1 and T2 (see Table 4).

Around 14% of providers ( $n = 348$ ) experienced a significant reduction in their care worker vacancy rate

from a mean of 18.7% at T1 to less than 5% at T2 (paired  $t = 16.6$ ,  $P < 0.001$ ). A smaller group of 201 providers (8.3%) experienced increases in their care worker vacancy rates from 5.4% to nearly 20% at T2 (paired  $t = -13.0$ ,  $P < 0.001$ ). The reduction in the overall care worker vacancy rates was clearly attributed to the large reductions experienced by these 348 individual providers. Table 5 indicates no significant differences in the distribution of the three groups experiencing no change, increased or decreased vacancy rates over time by sector ( $\chi^2_{(6)} = 5.67$ ,  $P = 0.461$ ) or by organisation size ( $\chi^2_{(6)} = 9.49$ ,  $P = 0.148$ ). Providers located in London were significantly over-represented within the group of providers who experienced increases in vacancy rates ( $\chi^2_{(16)} = 27.1$ ,  $P = 0.04$ ). No large differences were observed in the distribution of the three groups of providers by type of setting, except for an over-representation of adult residential providers (care homes) within the group with increased vacancy rates.

## Discussion

The current analysis highlights a number of important findings. The period of 2008–2010 saw considerable economic and policy changes that influenced and continue to influence care workforce stability and possibly quality of care. Overall during the period from January 2008 to January 2010, the mean turnover rate of care workers remained unchangeably high at 23%, while vacancy rates significantly declined from 4.6% to 3.9%. However, care worker vacancy rates remained considerably higher than overall vacancy rates in the UK labour market at just 1.7% in June to August 2011 (CI 1.6%–1.8%, ONS 2011). Similarly, a turnover rate of 22%–23% was considerably higher than experienced by other UK employment sectors, standing at 15.7%; however, it was considerably lower than the 34% turnover rate observed in the catering and leisure industry in the same time period (CIPD 2009). Moreover, this rate was substantially lower than the estimated 56.4% turnover rate among nurse aides (the closest US equivalent job role to care workers) in long-term care facilities in six US states (Castle & Engberg 2006) and an annualised turnover rate of 74.5% using 2004 data among certified nursing assistants in US nursing homes (Donaghue 2009).

These findings raise questions around the quality and motivations of new recruits and methods of reducing specific vacancy levels, which other types of research need to address. The strength of a longitudinal analysis is that it can illuminate continuing patterns as well as changes; our findings suggest that while reduc-

tions in care worker vacancy rates have occurred, turnover rates remain on average high. These are strong indications that vacancy rate reductions may have been achieved in the context of the lack of other employment opportunities within the wider labour market and increases in people seeking jobs due to the economic recession. The role of measures to encourage unemployed people to enter the labour market and dissuade them from living on unemployment benefits is unknown as a factor in this trend. Increases in turnover rates are associated with a continuous process of underfunding and marketisation, which took place during the study period (Glendinning 2011). For example, turnover rates remained highest within the private sector; however, private sector employers were over-represented among the group with significantly reduced vacancy rates at T2.

Both turnover rates and vacancy rates were highest among both care homes (residential care) and home care (domiciliary care), when compared with the smaller number of organisations providing day care or nursing care. However, home-care providers were over-represented among the group which experienced significant increases in turnover rates over the study period. Such observations reflect changes associated with fragmentation of services, low wages and increased incidences of non-payments of the National Minimum Wage, particularly when calculating travel time (Hussein 2011a, 2014, Bessa *et al.* 2013).

As with other studies, we found regional or geographical variations in vacancy levels, and turnover rates are likely to reflect local labour market variations (see Castle 2008 on the US). The capital, London, experienced one of the lowest turnover rates combined with one of the highest vacancy rates of care workers in the UK. The relatively low turnover rate in London (16% at T1 and 18% at T2) is likely to be associated with the high prevalence of non-EEA migrants there compared to other regions (Hussein 2011b, Skills for Care 2011). Non-EEA migrants are usually subject to immigration controls that prevent them from changing employers and they are not generally entitled to social security benefits if unemployed and so may not move jobs readily.

One of the main findings highlighted by this panel analysis is the great variability in the stability of the care workforce by different organisational characteristics, especially sector and type of activity, despite an unchangeable 'average' turnover rate over time. Just over half the providers in the data analysed in this study experienced no change in care worker turnover rates. However, nearly a quarter saw significant reductions in turnover rates, with another quarter



experiencing significant increases. Using this reconstructed panel data, we were able to investigate and compare stated reasons for leaving a job among the two groups of employers experiencing improvement and deterioration in care worker turnover. These are reported elsewhere (Hussein et al. forthcoming). However, they point to the importance of the suitability of jobs as well as levels of wages among other conditions.

## Conclusion

The policy value of these findings is evident at a number of levels. First, social care policy could point to the success of this area in turning round or beginning to halt the severe workforce shortages of the sector and to slow down the pace of turnover. Instead of concentrating on recruitment and retention as endemic to the sector, there may be room to acknowledge that some employers have experienced improvements in their vacancy and turnover rates. Researchers and policy makers might wish to place greater emphasis on differentiating between providers to understand work culture, support mechanisms and other characteristics that are associated with improved turnover and vacancy rates. There may be room for regional rather than national initiatives, especially in the London region and its surroundings. Policy makers may wish to support regulatory bodies to examine vacancy and turnover rates in line with these national findings to ensure that they are paying attention to workforce turnover as a sign of possible poor recruitment and to ensure that proper induction and support for new staff are a reality. At a time of increased emphasis on care at home, it is worthwhile examining why it is that care homes appear to have greater stability of staff and fewer vacancies than home-care agencies. Possibly, some workers may wish to combine care home and home-care work and this too might be explored to see if this enhances staff satisfaction, and leads to good outcomes for service users.

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## References

- Ball J.E., Murrells T., Rafferty A.M., Morrow E. & Griffiths P. (2013) 'Care left undone' during nursing shifts: associations with workload and perceived quality of care. *British Medical Journal, Quality & Safety* **23**, 116–125.
- Bessa L., Forde C., Moore S. & Stuart M. (2013) *The National Minimum Wage, Earnings and Hours in the Domiciliary Care Sector*. University of Leeds, Leeds.
- Castle N.G. (2008) State differences and facility differences in nursing home staff turnover. *Journal of Applied Gerontology* **27**, 609–630.
- Castle N. & Engberg J. (2005) Staff turnover and quality of care in nursing homes. *Medical Care* **43** (6), 616–626.
- Castle N. & Engberg J. (2006) Organizational characteristics associated with staff turnover in nursing homes. *The Gerontologist* **46** (1), 62–73.
- Cavendish C. (2013) *The Cavendish Review: An Independent Review into Healthcare Assistants and Support Workers in the NHS and Social Care Settings, London*. Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/236212/Cavendish\\_Review.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/236212/Cavendish_Review.pdf).
- CIPD (2009) *Recruitment, Retention and Turnover*. Chartered Institute of Personnel and Development, London.
- Donoghue C. (2009) Nursing home staff turnover and retention: an analysis of national level data. *Journal of Applied Gerontology* **29** (1), 89–106.
- Glendinning C. (2011) Home care in England: markets in the context of under-funding. *Health and Social Care in the Community* **20** (3), 292–299.
- Hussein S. & Manthorpe J. (2005) An international review of long term care workforce: policies and shortages. *Journal of Aging and Social Policy* **17** (4), 75–94.
- Hussein S. (2009) The size, roles and stability of the social care workforce in England. *Social Care Workforce Periodical August* (1), London. ISSN 2047-9638.
- Hussein S. (2011a) Estimating probabilities and numbers of direct care workers paid under the National Minimum Wage in the UK: a Bayesian approach. *Social Care Workforce Periodical December* (16), London. ISSN 2047-9638.
- Hussein S. (2011b) Migrant workers in long term care: evidence from England on trends, pay and profile. *Social Care Workforce Periodical March* (12), London. ISSN 2047-9638.
- Hussein S. & Manthorpe J. (2011) *Longitudinal changes in care worker turnover and vacancy rates and reasons for job leaving in England (2008-2010). Longitudinal analysis of the National Minimum Data Set for Social Care (NMDS-SC), Analysis report 1*. Social Care Workforce Research Unit, King's College London, London. ISBN: 978-0-9560268-2-8.
- Hussein S. (2014) Evidence and Reflections for The Kingsmill review of exploitation in the care sector. Submission to Baroness Kingsmill Parliamentary Review.
- Hussein S., Ismail M. & Manthorpe J. (forthcoming) Why care workers leave their jobs? An investigation of employers' perception using panel data.
- Loan-Clarke J., Arnold J., Coombs C., Hartley R. & Bosley S. (2010) Retention, turnover and return – a longitudinal study of allied health professionals in Britain. *Human Resource Management* **20** (4), 391–406.
- Low Pay Commission (2011) *National Minimum Wage*. Low Pay Commission Report 2011. The Stationery Office, London.

- National Care Forum (NCF) (2011) *Personnel statistics 2011. A survey of NCF member organisations*. Available at: <http://www.nationalcareforum.org.uk/content/NCF%20Personnel%20Survey%202011.pdf> (accessed on 30/9/2011).
- ONS (2011) *Labour Market Statistics: September 2011*. Office for National Statistics, London.
- Parsons S.K., Simmons W.P., Penn K. & Furlough M. (2003) Determinants of satisfaction and turnover among nursing assistants: the results of a state wide survey. *Journal of Gerontological Nursing* **29**, 51–58.
- Rosen J., Stiehl E., Mittal V. & Leana C. (2011) Stayers, leavers, and switchers among certified nursing assistants in nursing homes: a longitudinal investigation of turnover intent, staff retention, and turnover. *The Gerontologist* **51** (5), 597–609.
- Rubery J., Hebson G., Grimshaw D., Carroll M., Smith L., Marchington L. & Ugarte S. (2011) *The Recruitment and Retention of a Care Workforce for Older People*. University of Manchester, Manchester.
- Skills for Care (2010) *The State of the Adult Social Care Workforce in England*. Skills for Care, Leeds.
- Skills for Care (2011) *Capable, Confident and Skilled – A Workforce Development Strategy for People Working, Supporting and Caring in Adult Social Care*. Skills for Care, Leeds.
- Skills for Care (2014) *Adult Social Care Workforce: Recruitment and Retention Strategy, 2014–2017*. Skills for Care, Leeds.