OXFORD ECONOMICS

The Cost of Brain Drain

Understanding the financial impact of staff turnover

February 2014

A report for Unum

OXFORD ECONOMICS

Contents

Foreword by Unum

In this difficult financial climate, organisations of all sizes are looking to keep costs as low as possible, including the significant expense of replacing members of staff who choose to leave. The key to managing costs is understanding them, and this report aims to give employers a clearer picture of the financial implications of staff turnover in five key business sectors.

There are more elements to the cost of staff turnover than one might initially anticipate. Firstly, organisations face logistical costs such as advertising the vacant role and hiring temporary staff to cover any gaps. On top of this, businesses will also encounter a period of reduced productivity while new staff take time to reach their peak effectiveness in their new job. It's easy to underestimate how long it can take to get staff up to their optimum productivity level. In fact we believe that even in this report employers have been optimistic in their estimation of how long this process takes, especially for higher earners in leadership roles. I have found that when moving to a new employer it takes over 11 months to reach peak effectiveness, given the learning curves at more senior levels.

The most important step organisations should take to reduce these turnover costs is to do everything possible to retain and develop good staff. Raising salaries isn't always an option, with many companies facing cutbacks and pay freezes in the current climate. Additionally, staff increasingly value long-term employee benefits such as Income Protection rather than short term financial rewards, and our experience is that these longer-term benefits can have a positive impact on staff turnover. However, providing these benefits is not enough. It is also vital to communicate with staff to make sure they know about any financial protection and well-being initiatives an employer provides. If staff are unaware of the benefits on offer, or don't understand them, they won't appreciate them.

Another way for organisations to reduce the cost of staff turnover is to address the period of reduced productivity. Bringing staff up to speed more rapidly would deliver significant financial savings. This study shows that small companies currently have an advantage here. Larger businesses should take a look at what SMEs are doing to accelerate the learning curve of new joiners, and see if they can adopt elements of their approach.

I hope you find this report useful in terms of understanding the costs of staff turnover, as well as the importance of reducing these costs wherever possible. The findings also illustrate the importance of having the right employee benefits such as income protection that can help in retaining staff.

Peter O'Donnell – Chief Executive Officer, Unum

Executive Summary

- Firms have long understood that losing staff is a key risk to success, but the financial cost of staff turnover has received little attention. This report analyses the financial impact of staff turnover. We find that across five key sectors (IT/Tech, Accounting, Legal, Media/Advertising and Retail), the loss of an employee earning £25,000 a year or more carries an average financial impact of £30,614, ranging from £20,113 for retailers to £39,887 for legal firms.

- These costs are split into two main components. Firstly, and most importantly, is the cost of lost output while a new worker gets up to the standard expected of them ("optimal productivity"). We have estimated this cost to be on average £25,181 – ranging from £16,240 for new workers in the retail sector to £35,307 in the legal sector.

- The second cost, which is probably more familiar, is the logistical cost of finding and absorbing a new worker. This includes the cost of advertising, using a recruitment agency, employing a temporary worker, and the cost of interviewing and inducting a new employee. This costs on average £5,433 across sectors, ranging from £3,874 in retail to £6,630 in legal.

Figure 1 - The cost of labour turnover
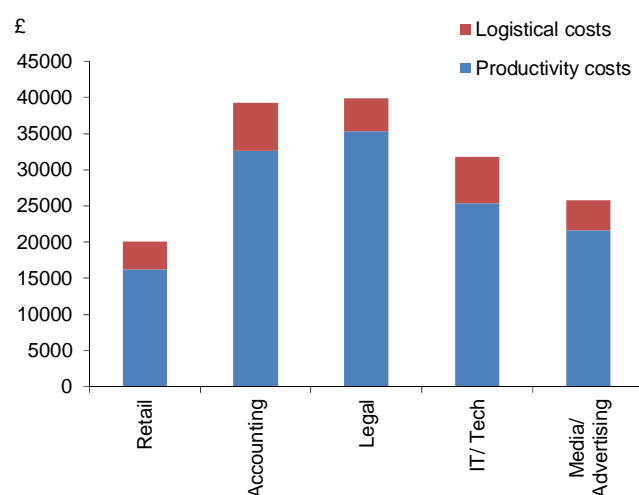
Source : Oxford Economics/Haver Analytics

- These costs vary substantially across three key variables – the sector in question, the size of the firm hiring a new employee, and the background of the worker being recruited. The differences between sectors have already been highlighted above, but the differences between worker types and firm size are just as important for firms to understand.

- New workers that come from the same sector get up to optimal productivity much faster than those from elsewhere – on average a staff member joining from another firm in the sector takes 15 weeks to reach optimal productivity, compared to 32 weeks for a worker from another sector, 40 weeks for a new graduate, and a full calendar year for a person coming out of unemployment or inactivity.

- But smaller firms seem much better at getting workers to optimal productivity than larger ones – on average firms with 1-9 workers told us their new employees from within the sector get up to speed within 12 weeks, compared to 18 weeks for firms with over 500 workers. It is not clear why this is necessarily the case, but more exposure to management (as might be expected in smaller firms) might accelerate the learning process, as well as result in more immediate feedback.

- Smaller firms also seem much nimbler at keeping costs low when replacing workers, with less reliance on advertising agencies, recruitment consultants, and agency workers. Firms with fewer than 50 employees spent £3,300 on logistical costs compared to £5,600 in firms with more than 50 workers.

- Overall, we estimate that labour turnover in 2013 cost retailers a total of £673m, accounting firms £580m, £805m in Legal, IT/Tech firms £1873m, and media/advertising firms £184m. Relative to the size of the sectors in question though, the impacts are greatest in Legal, IT/Tech and Accounting – turnover costs each of these sectors over 3.5% of their output per year.

1 Introduction

Staff turnover imposes costs upon UK firms in a variety of ways – through lost output, wages paid to workers who are yet to fully get up to speed, and the logistical cost of replacing workers.

1.1 Our objectives and methodology

This study aims to quantify the costs of labour turnover amongst workers earning above £25,000 per year in five key economic sectors (Retail, IT and Technology, Legal, Accounting, and Media and Advertising). We define "labour turnover" as an employee leaving the firm and being replaced by a new employee to fulfil the same role. In this report we focus on various cost concepts associated with labour turnover.

Firstly, we estimate the value of lost output and wages from a new employee operating below their optimum productivity, or the level of productivity exhibited by a worker in that role performing in line with expectations. Secondly, we estimate costs associated with the process of recruiting for a replacement, known as logistical costs.

In order to assess the cost of labour turnover we have used a combination of both publically available and bespoke data resources[1]. These gave us a key insight into the level of labour turnover, the origin of replacement workers, and the wages paid across different sectors.

We then needed to understand how long different types of workers take in firms' views to get up to speed, as well as which particular types of skills they find most difficult to pick up when entering their new role. To get a sense of this we surveyed over 500 firms of various sizes in the sectors of interest (Figure 2).
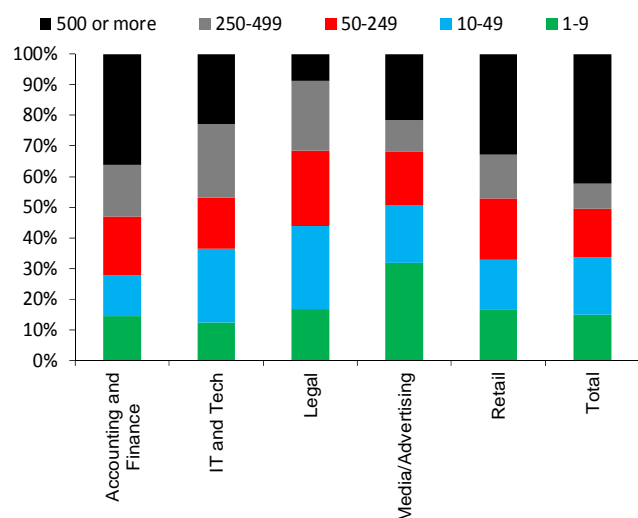
Figure 2: Our sample by sector
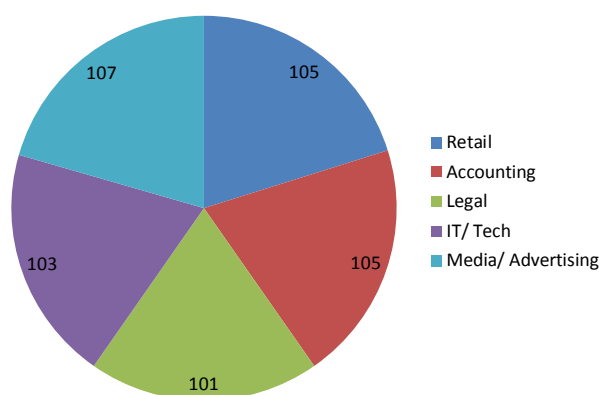
Source : Oxford Economics/Haver Analytics

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[1] Including the Annual Survey of Hours and Earnings (ASHE), the Labour Force Survey (LFS), and the Annual Business Survey (ABS), all produced by the ONS.

Figure 3 - Our sample by workforce size

1.2   Our report structure

The rest of this report consists of three sections:

- Firstly we analyse the productivity costs of labour turnover

- Secondly, we consider the logistical costs of turnover

- Finally we present total cost of labour turnover per worker in our chosen sectors

- Annex A covers details of our methodology for calculating the cost of lost wages and capital income

It should be borne in mind that labour turnover is an important long-run driver of innovation and growth. It would be sub-optimal for workers to stay in one role for their entire career, not least because it would prevent people from moving into jobs that are a better fit for their skills and hence of benefit to both employer and employee. However, labour turnover clearly imposes substantial short to medium term costs on firms, as we have already discussed. These are the costs that we seek to quantify in this report.

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2 Productivity costs of labour turnover

Key points

- Firms face two separate components of productivity costs when replacing a departed worker. Firstly they need to absorb the cost of paying wages to a worker who is working below the expected level of performance (or optimal productivity), and therefore generating insufficient output to cover his or her wages. The difference between wage cost and productivity level is defined here as "lost wages" from labour turnover.

- Secondly, once they have reached their optimal productivity level, workers are generating not only sufficient output to cover the cost of their wages, but additional revenue that can be used to service the capital invested in the firm – for example via bank loans, dividends on shares, or profits taken by the owners. In the period waiting for workers to reach their optimal productivity therefore, firms also lose capital income.

- The scale of these losses depends on three variables – how long workers take to reach their optimal productivity, how their learning evolves over this period, and how much their employer is paying them during this period. However, overall we find that across all our sectors the average cost in lost productivity totals £25,181, made up of over £13,128 in lost wages, and £12,054 in lost capital income.

- This productivity loss varies across firms though – ranging from a total of £35,307 in the legal sector to £16,240 in retail. The scale of lost productivity also depends to a very great extent on where incoming workers come from – those coming from within the industry tend to get up to speed within a few months, whereas workers coming from education or unemployment can take six months or more to reach their optimal productivity.

- There are also important differences between different firm sizes. On our estimates the smallest firms (those with up to 9 employees) bear productivity costs of £19,728 per new worker, rising to £26,815 for firms with over 500 workers. In our study we do not explore why smaller firms get workers up to speed more quickly than larger ones, but it might well be that in firms with fewer levels of management, both learning opportunities and feedback come more quickly than in larger organizations.

2.1 Introduction

In this chapter, we summarise our estimates of the productivity costs associated with labour turnover of employees earning £25,000 per annum and above. In particular, this section analyses the cost of having a period of below par performance while replacement employees reach their optimum productivity level. We define this as the point at which a new employee is fully contributing what is expected of an established worker in that role. When the worker is performing below this the firm is clearly bearing an efficiency cost relative to an alternative scenario in which the previous worker was still employed.

The cost of having below par performance while new employees reach optimal productivity level is made up of two distinct components. The first is that the firm has to pay the worker his or her wage, and this is likely to be greater than their value added in the initial weeks. This is a direct financial cost, and is denoted as section A.

The second component is that when workers are at optimal productivity, they produce not only to the value of their wage, but also additional output that provides a return to capital invested in the firm (known in economics as the "capital share" of value added). This is less directly measurable, but nevertheless a key cost for firms to bear as they strive to meet financial targets, and is given by section B.

Figure 4: Productivity costs of labour turnover – lost wages
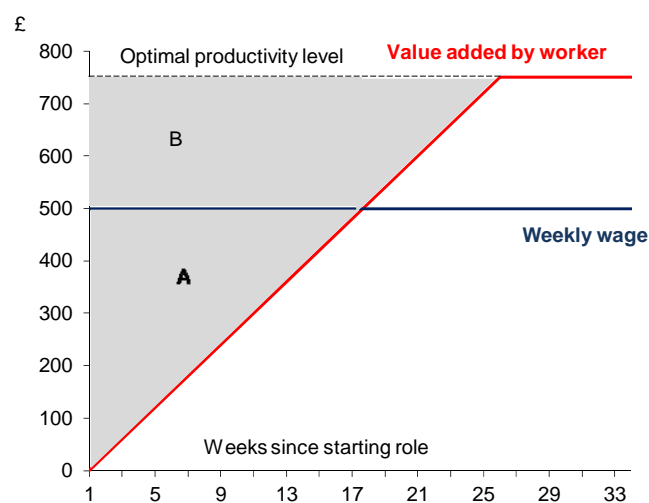
Source : Oxford Economics/Haver Analytics

The size of the productivity cost of turnover clearly depends on four variables:

- The length of time taken to reach optimal productivity (i.e. the number of weeks on the horizontal axis)

- The shape and slope of the path towards optimal productivity (the red line)

- The average wage paid in the sector

- The ratio between the wage paid and the value added by the worker when at optimal productivity – that is the relative size of portion B in Figure 4 to portion A.

In the following sections we analyse each portion of these costs in order to calculate the productivity cost of labour turnover.
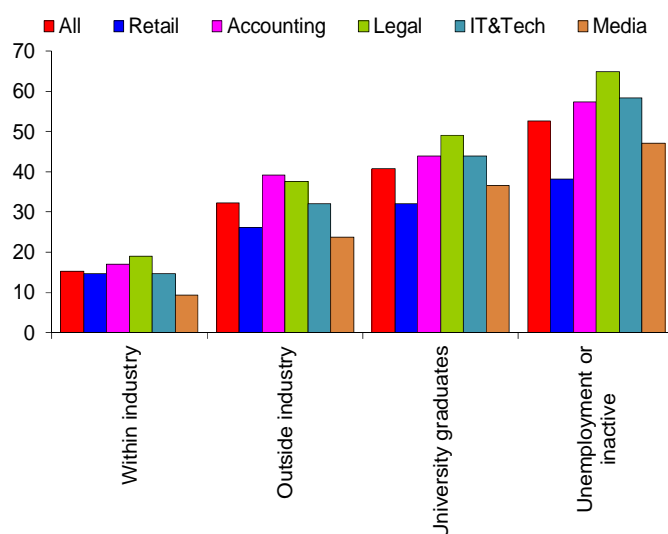
2.2 Time to reach optimal productivity level

This section focuses on the time it takes a new employee to reach optimal productivity by sector, firm size and a worker's background. How long this takes depends on the origin of the new employee and the type of role. As denoted in Figure 5, across industry sectors new workers require fewer weeks to reach optimal productivity if they move into a vacancy from a previous role within the same industry. This makes sense of course, since they will already have a number of key skills that are important for their new role, and as such can more quickly move on to picking up the more advanced skills. Across sectors, our sample of firms reported that new workers from elsewhere in the same industry got up to speed within 10 to 20 weeks.

By contrast, someone coming from a job in another sector took around twice as long to get up to speed – between 20 and 40 weeks. However, even these workers have a substantial advantage over new graduates, who on average take 30 to 50 weeks to reach optimal productivity depending on the sector they move into. Previously unemployed or inactive workers[2] took the longest to reach optimal productivity – as much as 60 weeks in the case of legal firms.

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[2] It should be noted that there are large variations in the length that people are unemployed, and the impact this has on their performance on starting a new job.

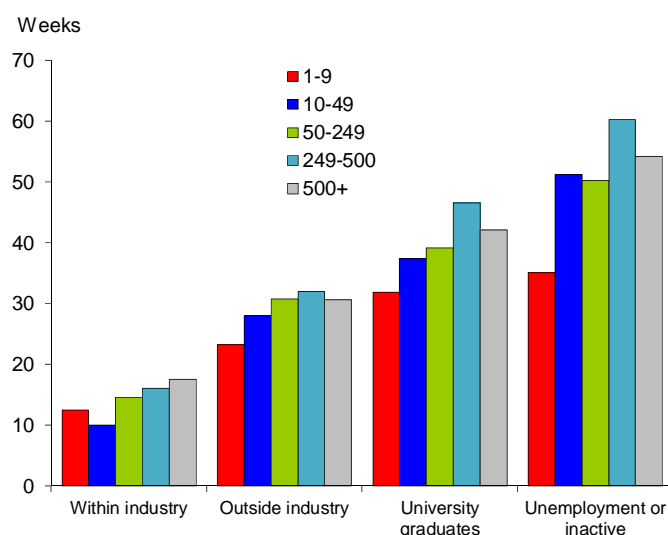**Figure 5: Time to reach optimal productivity in weeks, by sector**

These results are fairly intuitive, but possibly more interesting are the findings on time taken to reach optimal productivity by firm size. Our survey evidence strongly points towards smaller firms getting new recruits up to speed more quickly than larger ones – for recruits from elsewhere within the sector the smallest firms get workers up to optimal productivity on average in half the time as in larger firms. These differences persist across other sizes of firm – smaller firms get workers to optimal productivity ten weeks faster when they come from another sector, and twenty to thirty weeks faster for university graduates or unemployed and inactive workers.

It's not clear why this would necessarily be the case but two possibilities spring to mind. The first is that smaller firms might have a lower level of optimal productivity in mind – that is, they get less output out of workers than in larger firms. This could be because they are less able to support them with administrative back up, IT support staff, and so on. It might also be that workers in smaller firms have to cover more areas of work, and are therefore less able to specialize and reach the highest levels of productivity.

An alternative possibility is that workers in smaller firms tend to have more exposure to and interaction with management and owners than is the case in larger firms. As such they will learn the skills necessary to succeed faster. Smaller firms might also have fewer internal corporate practices that add little to core productivity, but take time to get to grips with.

**Figure 6: Time to reach optimal productivity in weeks, by firm size**

2.3   The path towards optimal productivity

Optimal productivity is defined as when an employee is fully contributing the level of output that is expected of an established worker in that role. We have examined in depth the time taken to reach optimal productivity, but there is also a key question over what path a worker takes to this level of productivity.

Some workers might pick up skills quickly in their first few weeks, but their rate of learning then slows as they get closer to optimal productivity – economists describe this as "diminishing returns". Others might struggle at first (particularly if they are new to the basics of working life itself) but then pick up their rate of learning as time goes on. Others still might learn at a steady rate. These stylized paths for productivity levels are displayed in Figure 7. This is a key variable, as the worker's learning style will determine the value of output lost in Figure 4.

Figure 7: Learning styles and productivity level

Productivity as % of optimal productivity

Time in job as % of time to optimal productivity
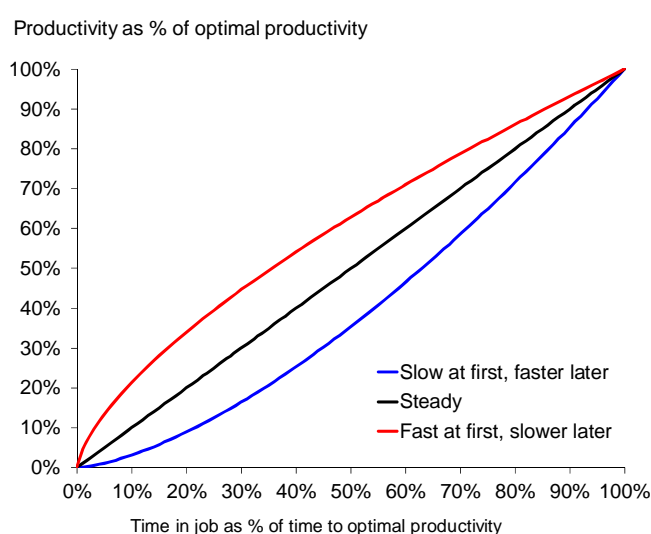
Unsurprisingly, our survey suggested that workers whose prior employment was in the sector itself tend to learn quickly at first, as they are deploying skills they have already honed elsewhere. Their rate of learning then slows as they get to grips with the more high-level firm skills and knowledge. Workers from other sectors and recent university graduates tend to learn at a steady rate, while new recruits coming from unemployment or inactivity tend to be slower learners at first – possibly as they adjust back into working life.

In contrast with the shorter "time to optimal productivity" estimates for smaller firms however, it does not seem that learning styles differ between firm sizes– the proportion of firms reporting each type of learning style for different worker types is reasonably constant across smaller and larger firms.

Figure 8 - Learning styles by worker type
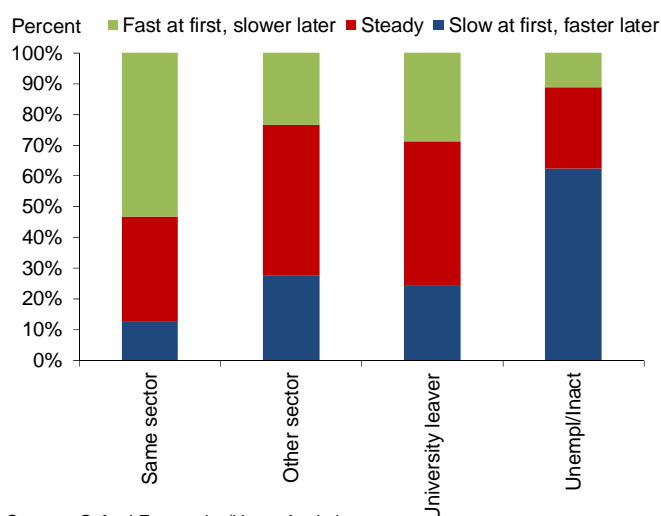
Source : Oxford Economics/Haver Analytics

Combining these two key metrics allows us to estimate the number of "lost weeks" from workers operating below optimal productivity, for a given worker type entering each particular sector. For example, if a new recruit is only working at 20% of optimal productivity in the first week, 0.8 weeks of output is lost due to turnover. In the second week if the employee is working at 40%, another 0.6 weeks are lost, and so on. Summing the average loss of working weeks while new hires get up to speed results in the values reported in Table 1 below. As would be expected, the number of lost weeks is much lower for people who had previously been employed and greater for those who had been out of work or in education.

Table 1 - Weeks of lost output by sector and worker type

Recruit type				
Hiring Sector	Same sector	Other sector	University leaver	Unemployed/Inactive
Retail	6.4	13.0	15.6	20.8
Accounting	7.4	20.1	21.3	32.2
Legal	8.0	18.8	24.0	35.4
IT/ Tech	5.9	15.7	21.4	32.1
Media/ Advertising	3.8	11.3	18.6	26.1

As noted earlier, smaller firms tend to get new workers up to optimal productivity more quickly, and this is reflected in the number of weeks lost operating below optimal productivity. Small firms get new workers from the same sector up to speed two to four weeks faster than larger firms, up to five weeks from workers from other industries, and as many as fifteen weeks when considering people who had previously been out of work.
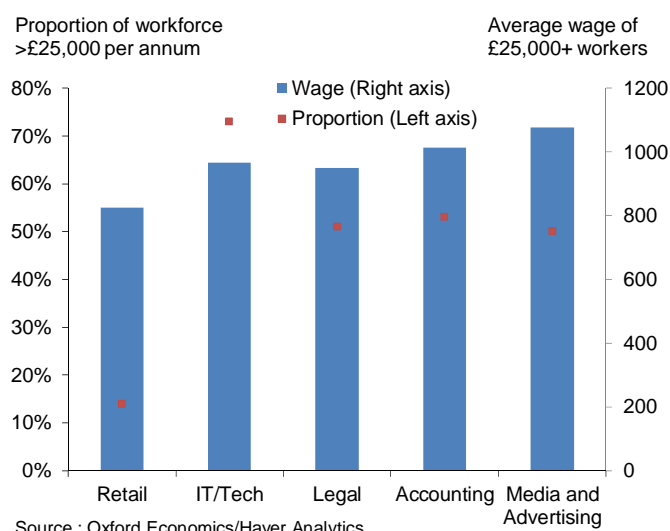
Table 2 - Weeks of lost output by firm size and worker type

Recruit type				
Employees	Same sector	Other sector	University leaver	Unemployed/Inactive
1-9	5.9	12.8	17.3	20.4
10-49	4.7	15.5	20.3	29.8
50-249	6.9	17.0	21.2	29.3
249-500	7.6	17.6	25.2	35.1
500+	8.3	16.9	22.8	31.6

2.4 Average wages paid in the sector

Our interest in this study is in the cost of losing (and replacing) workers above the £25,000 per annum salary mark. However, typical salaries paid to workers fitting this criterion vary quite markedly across our five sectors of interest. £25,000 per annum is a relatively high salary in the retail sector (only 15% of workers in retail earn above this level), and even relatively senior roles such as store managers and district managers often do not earn substantially more. However, in legal and accounting professions £25,000 is much closer to an entry level professional worker, and senior workers in these sectors can earn many times this amount. The proportions of workers earning above our threshold and average wages in this cohort are displayed in Figure 9[3].

Figure 9 - £25k+ workers and wages

Proportion of workforce
>£25,000 per annum

Average wage of
£25,000+ workers

Source : Oxford Economics/Haver Analytics

2.5 The cost of lost wages

Combining these three components (weeks to reach optimal productivity, learning styles, and average wage earned) allows us to estimate the typical cost of "lost" wages for a worker coming into a sector from a given background[4]. As would be expected, the average cost in all sectors is lowest when workers have come from another firm in the same sector – on average between £5,000 and £10,000. The cost broadly doubles when taking a new recruit from another industrial sector, and rises to over £20,000 for university graduates. In all sectors except retail, our estimate of the cost of lost wages when taking a previously unemployed worker is £25,000 or more (Figure 10).

In Figure 11 we present the cost of lost wages across different firm sizes[5]. By and large, in light of the shorter spell of getting new workers up to optimal productivity, the cost of lost wages is lower for each type of new worker for smaller firms than for larger ones. In the case of previously unemployed or inactive workers we estimate the smallest firms are able to save around £10,000 compared to firms of 250-500 workers, and although the savings are less dramatic for other worker types they are nevertheless substantial – over £5,000 in the case of graduates, and just short of £5,000 for workers from another sector.

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[3] More detail on how we calculate this average wage is set out in Appendix 1.

[4] A key assumption in this calculation is that workers coming from different backgrounds receive the same wage when joining the firm – equivalent to the averages set out in Figure 9.
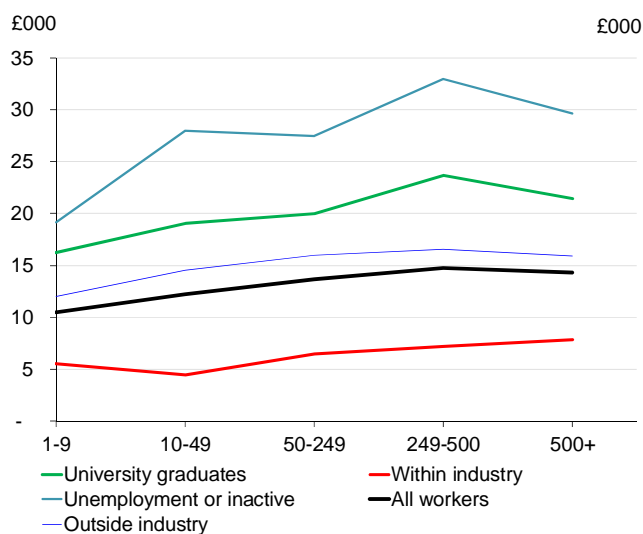
[5] Again, we assume firms of different sizes all pay the same rate for new workers.

Figure 10 - Lost wages when replacing a worker by sector
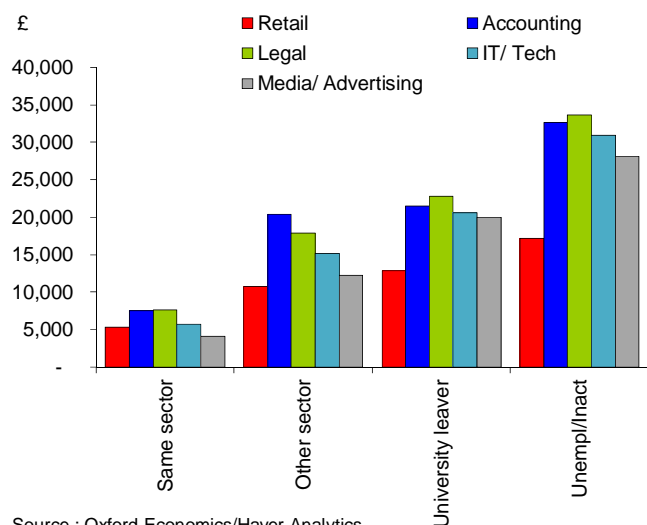
Source : Oxford Economics/Haver Analytics

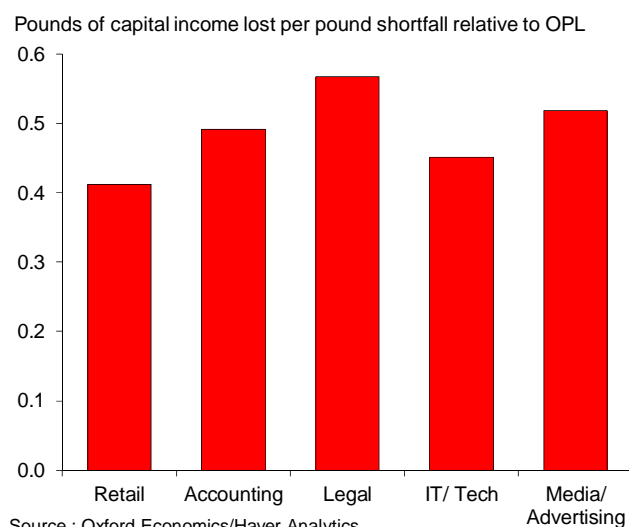**Figure 11 - Lost wages by size of firm**

2.6   Lost capital income from staff turnover

Very briefly, we finally consider the cost of lost capital income from staff turnover. This equates to portion B in Figure 4. The ratio of value added to wage payments used to estimate the relationship between portion B and portion A in Figure 4 is taken from the Office for National Statistics' Annual Business Survey (ABS), which contains data on a number of key metrics at the industry level, including value added, employment costs, and more. By using the ratio of value added to wage payments, it is possible to estimate how much additional value added is lost from a worker being below optimal productivity.

It should be noted though that this method rests on the assumption that the ratio of value added to wage payments in the ABS for 2012 (the latest available data point) represents a "steady state" of firms working at optimal productivity. This is clearly not the case, since labour turnover is happening continually. As such, steady state (or zero labour turnover) output would probably be higher than reported in the ABS. As such the loss of capital income is probably going to be underestimated using this method. But it is the best estimation possible given the available data.

Figure 12 - Loss of capital income from a worker being below optimal productivity

Pounds of capital income lost per pound shortfall relative to OPL

Source : Oxford Economics/Haver Analytics

The labour share at the whole economy level is around 50%. To put it another way, defining Gross Value Added (GVA) as the difference between total revenue and total spending on physical inputs other than labour, out of every pound of GVA generated, 60p is paid out in the form of wages to workers. The remaining 40p accrues to the providers of capital – either the owners of the business themselves in the form of profits and dividends, or the providers of bank loans etc. Estimating the loss of output borne by firms in the form of unproductive wages can therefore by extension also allow us to estimate the loss of capital income from having a replacement worker.

However, the labour share will vary depending on the nature of the sector involved, in particular how labour or capital intensive the sector is. For sectors that rely on large amounts of relatively unskilled labour (such as the retail sector) the capital share will be lower than on average across the economy and the labour share higher. By contrast, in sectors with relatively fewer workers but higher skills (such as the legal sector), the labour share will be lower and the capital share higher. The capital share is also likely to be higher in sectors such as legal and accounting where employees are more likely to also be owners via a partnership structure, and therefore take part of their remuneration via dividends.

Overall therefore, in sectors with larger capital shares, the loss of capital income per pound of worker underperformance versus the optimal productivity will be greater. The loss of capital income for each pound of underperformance against optimal productivity is set out in Figure 12 – this ranges from just over 40p in the retail sector to 57p in the legal sector.

In turn, these key ratios allow us to estimate the loss of capital income associated with the loss of an established employee, and replacing him or her with new workers from various backgrounds. As before, the costs are much higher in the case of previously unemployed workers than any other type.

Having said that, the loss of capital income from taking on a previously unemployed worker in the retail sector is much lower than in any other sector – possibly illustrating why retailing is regarded as a "gateway" back into employment. Nevertheless, as with the "lost wages" paid when taking on a previously unemployed worker, it seems likely that the scale of lost capital income relative to workers who were hired from another job would deter many firms in our chosen sectors from taking on people who were out of work.

Figure 13 - Loss of capital income from losing an established worker and replacing with:
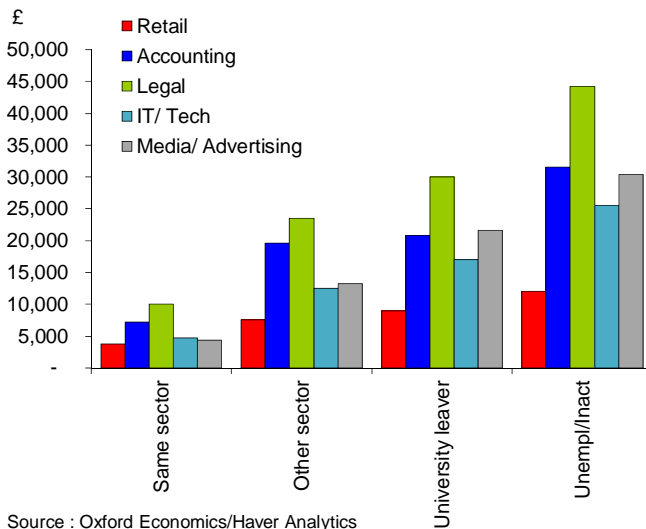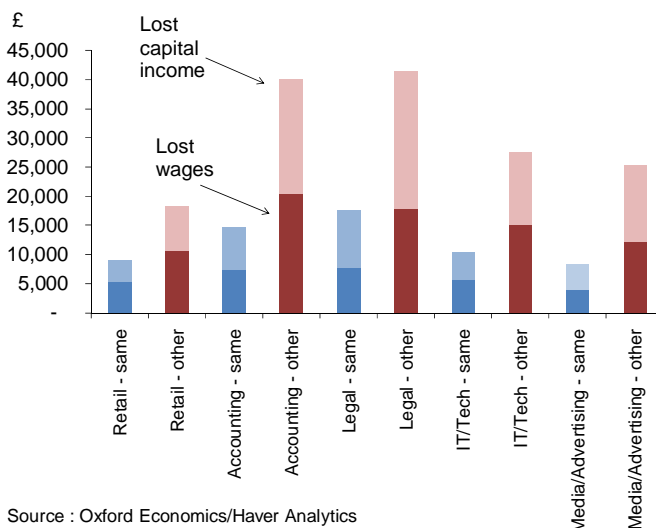

Source : Oxford Economics/Haver Analytics

2.7   Total productivity loss from losing an established worker

Adding together the lost wages and lost capital income from having to replace an established worker with someone new to the firm produces very substantial costs. On average these amount to between £8,000 and £18,000 when replacing an established worker with someone from the same industry, and £18,000 to £40,000 when recruiting someone from outside the sector. We focus on these two types of worker here, since these workers typically account for around 80-90% of new recruits across our sectors of interest; but as we have seen, costs are even greater in the case of workers who are not hired from another job.

Figure 14 – Efficiency loss from losing established worker, replacing with worker from either the same sector, or a different sector

Source : Oxford Economics/Haver Analytics

As we have noted, since smaller firms seem to get new recruits up to speed faster, they have lower overall efficiency costs from labour turnover. The chart below sets this out for workers coming from the same sector, but a comparable pattern (at higher levels of loss) is observed for other types of new recruits too.

Figure 15 – Productivity loss from losing established worker, replacing with worker from same sector, by firm size
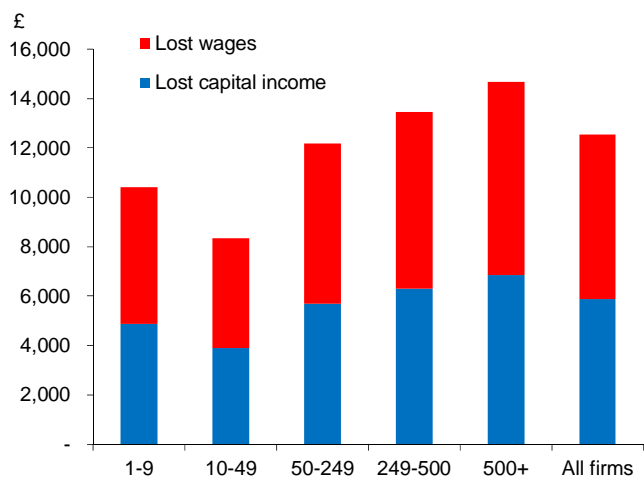
Source : Oxford Economics/Haver Analytics

3 Logistical costs of labour turnover

Key points

- Logistical costs are the more commonly understood part of the cost of turnover. This includes costs paid out of the firm for services such as advertising, using recruitment agencies, and provision of temporary workers. Firms also need to bear the cost of internal processes such as Human Resources procedures and interviewing time.

- Together, we estimate these costs on average total £5,433 per worker replaced, ranging from £3,874 in retail to £6,455 in IT/Technology. In general the majority of this cost (between two-thirds and three-quarters) reflects the use of temporary workers. However, in most sectors (the exception being retail) we estimate interviewing costs a firm around £1,000 per worker replaced.

- As is the case with productivity costs, smaller firms seem much better able to source replacement workers at lower cost than larger firms. Firms with fewer than 9 workers spend on average £2,902 on logistical costs when replacing a worker, rising to over £7,000 amongst firms with more than 250 workers. We find that smaller firms are much less likely to use temporary workers, advertising agencies or recruitment agencies, although internal costs are much the same as for larger firms.

3.1 Introduction

Other than costs to firms' productivity, labour turnover involves costs of recruiting for and inducting replacement workers. These logistical costs include:

- Advertising spend for a new employee;

- The cost of using an agency to recruit for a new employee; and,

- The number of days taken for internal HR processes related to a new employee

In this chapter, we summarise our estimates of logistical costs following labour turnover of employees earning £25,000 per annum and above. The analysis provides a breakdown of the costs by industry sector and firm size where possible. It should be noted that throughout we assume these costs do not vary depending on where the workers come from (in contrast to our estimates of the efficiency costs, which are greater for workers who are coming from education or unemployment than a job elsewhere).

3.2 Advertising and agency fees

Figure 16 illustrates the amount employers spend on advertising for a new employee, as well as how much they spend recruiting through agencies. The results show that approximately 70% of employers surveyed advertise when looking for a new employee; and on average spend £370 doing so. The proportion of firms advertising is fairly stable across sectors, with the (ironic) exception of media and advertising, where just over 60% of firms do so. However, there are quite substantial differences in the cost of advertising, with retailers paying out under £300 to place an advert, but accounting firms paying closer to £500.

Across the sample as a whole, around 60% of all employers use agencies to recruit for a new employee, spending on average £400. But there are much wider variations in the likelihood of different sectors doing this than in the case of advertising. The higher value-added sectors (including accounting, IT/Tech and legal sectors) are more likely to use an agency to find their next recruit than are firms in retail or media. This might reflect a number of drivers. For example it could reflect a greater pool of available workers in retail; a higher propensity for prospective workers in media to submit speculative applications; or in the case of legal and accounting sectors, the importance of specific qualifications that are scarce amongst the general population.

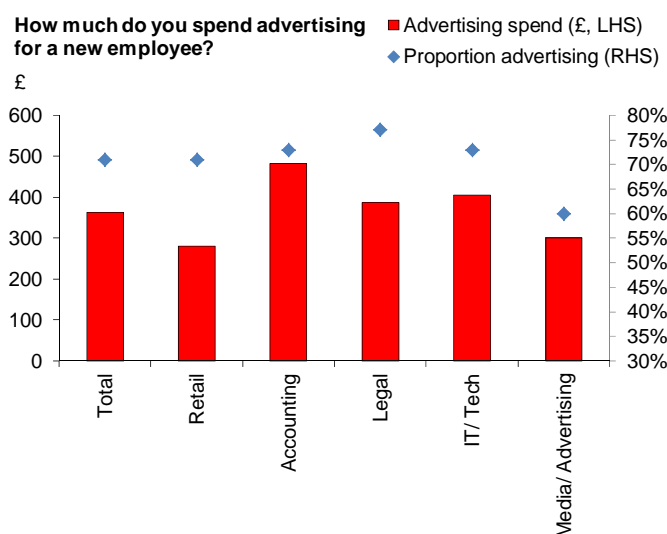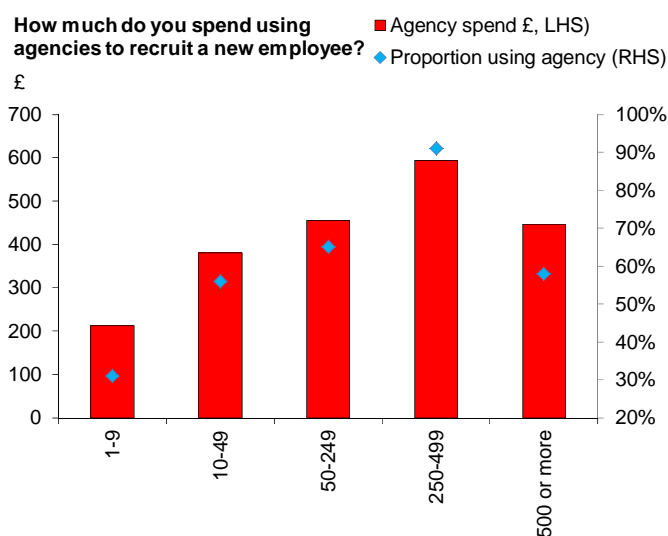**Figure 16 - Advertising spend in recruiting replacement worker**

How much do you spend advertising for a new employee?
■ Advertising spend (£, LHS)
◆ Proportion advertising (RHS)

Figure 17 – Average agency spend in recruiting replacement worker

How much do you spend using agencies to recruit a new employee?
■ Agency spend £, LHS)
◆ Proportion using agency (RHS)

Perhaps unsurprisingly smaller firms tend to use both advertising and recruitment agencies less commonly than larger firms. This might reflect cost constraints, a lack of familiarity, or a greater ability to fill the relatively few positions that come vacant with people known to existing staff. Regardless, only half of the firms with fewer than 9 workers told us they advertised their vacancies, compared to over 90% of firms with 250-499 employees. Those that did tended to spend less also; just over £200 compared to almost £500. The differences are even greater when considering the use of recruitment agencies by firms. Less than a third of firms with fewer than 9 workers used agencies, compared to over 90% of firms with 250-499 workers.

Figure 18 - Advertising spend in recruiting replacement worker

How much do you spend advertising for a new employee?

- ■ Advertising spend (£, LHS)
- ◆ Proportion advertising (RHS)
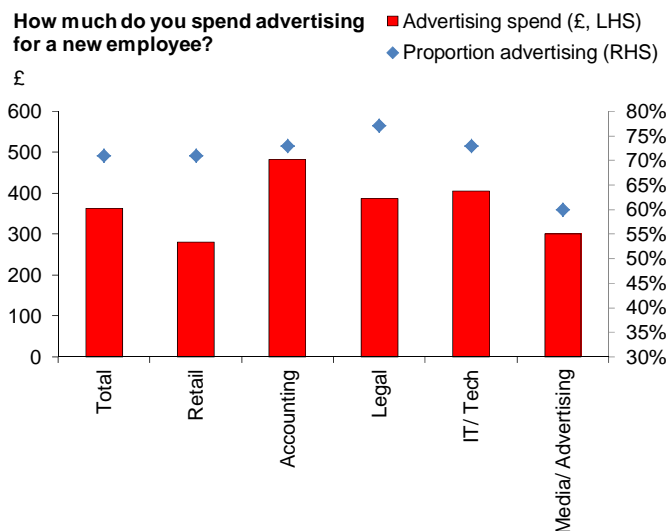
Figure 19 - Advertising spend in recruiting replacement worker

How much do you spend using agencies to recruit a new employee?

- ■ Agency spend £, LHS)
- ◆ Proportion using agency (RHS)
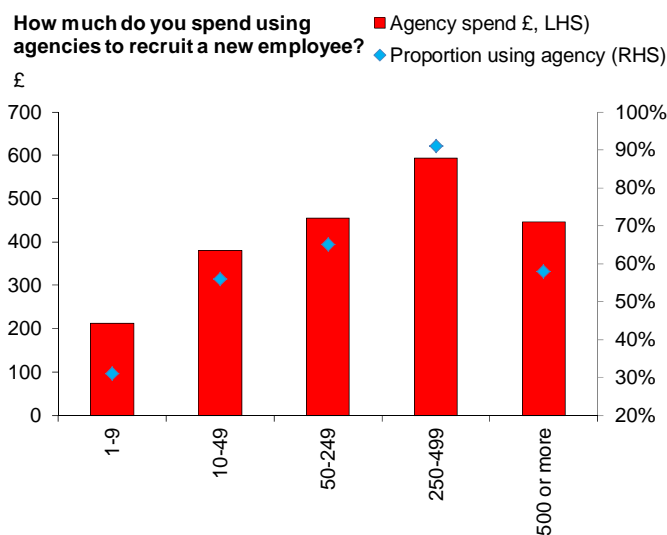
3.3   Cost of temporary workers

Evidence from the survey also provides an insight into the cost of temporary workers employed to cover a post following the departure of an employee with a salary of £25,000 or more. On average, firms in our survey reported using a temporary worker for just short of 18 days as cover. This figure was slightly higher in sectors with a high degree of technical expertise, accountancy and IT/Tech in particular and slightly lower in sectors where client networks are more important - this is illustrated in Figure 20.

Figure 20: Importance of client skills and average days using a temp

Proportion saying client relationships were a key barrier to new workers reaching optimal productivity level
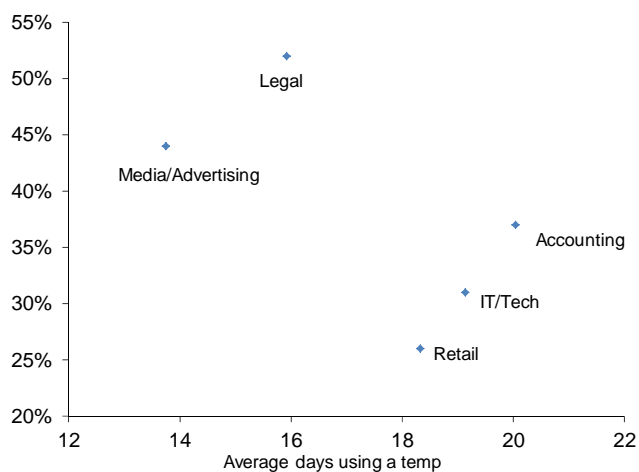
There are also large variations in the typical daily cost of temporary workers per day between sectors. In the IT/Tech and Accounting sectors, 18% and 14% respectively reported an average cost per day for a temp worker in excess of £400. By comparison, only 1% of retail employers surveyed spend over £400 per day. On average, a day's use of a temporary worker in the retail sector costs £150, while in the Accounting and IT/Tech sectors the cost is around £70 more. Overall therefore, the spend on temporary workers is greatest in the accountancy and IT sectors, at over £4,000 per vacancy – around £1,500 higher than in our other three sectors.

Figure 21: Cost of a day's temporary worker, sectors
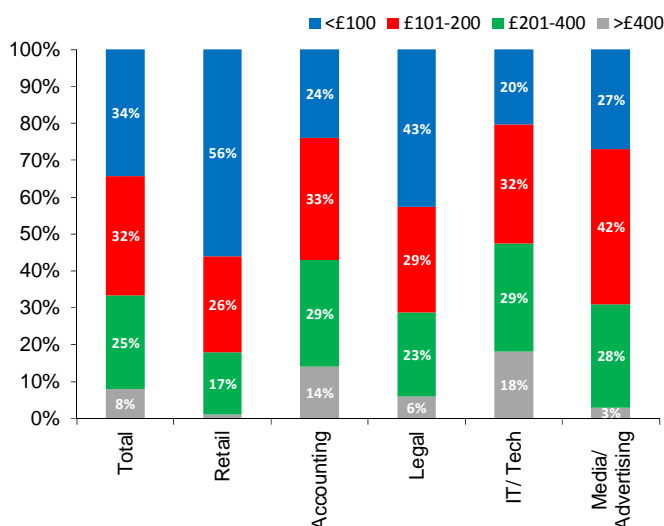
Figure 22: Average number of days temporary workers used, sectors
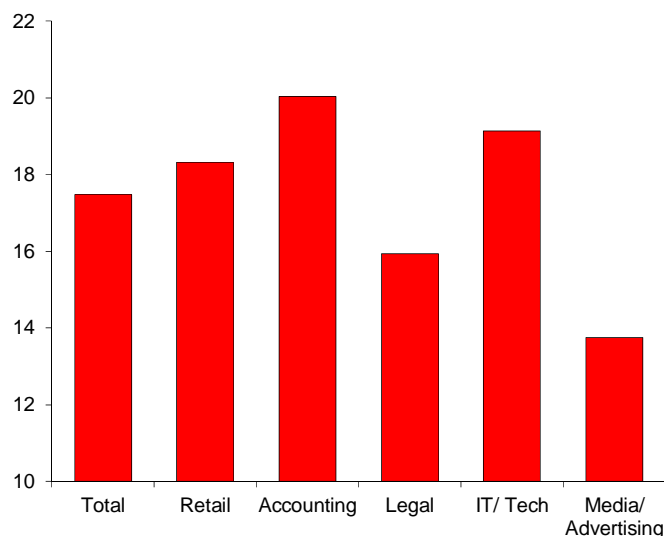
Figure 23: Average spend on temporary workers, sector
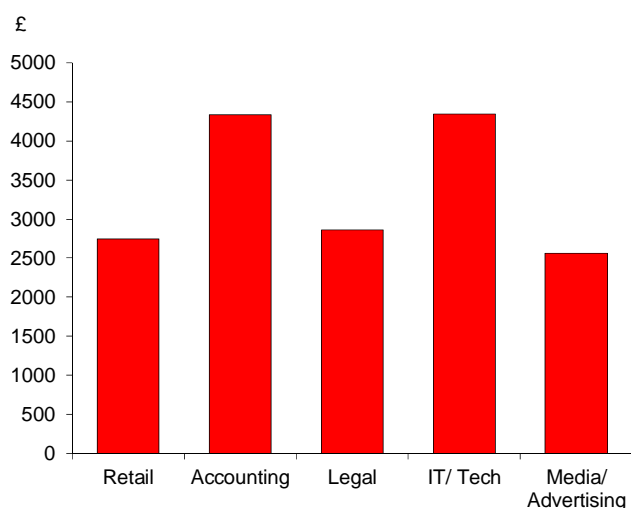
Source : Oxford Economics/Haver Analytics

In addition though, there are some big differences in how temporary workers are used across firm size. Firstly, smaller firms tend on average to find cheaper workers to fill in on a temporary basis - almost 80% of firms with 1-9 workers reckoned a temp cost on average less than £200 per day, compared to 60% or so for firms with more than 50 workers. In addition, smaller firms tend to use temps for fewer days, ten days in the case of the smallest firms rising to over twenty for the largest.

Overall therefore the average spend on temporary workers rises as firm size increases, from less than £2,000 per worker replaced at the smallest firms to over £5,000 at the largest. And this is not due to the fact that smaller firms are more likely to be retailers – as illustrated in Figure 2 and

Figure 3 retailers are more likely to be larger firms than our "professional" sectors. So it may be that smaller firms are more financially constrained from using temps, are less likely to have ongoing relationships with the agencies that provide them, or possibly are faster to fill vacancies, reducing the need in the first instance.

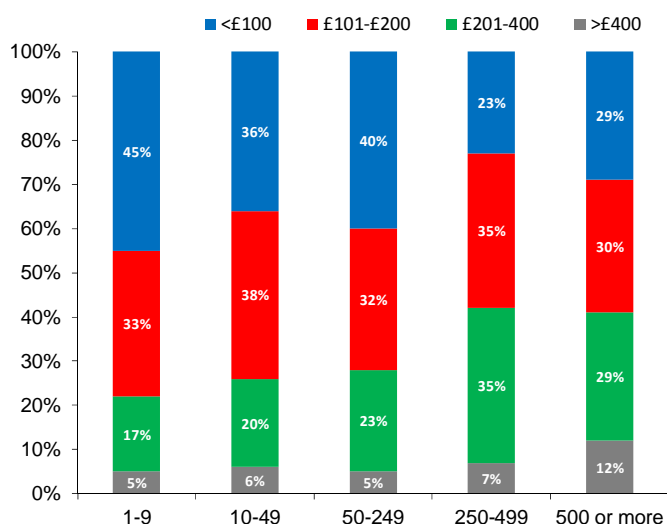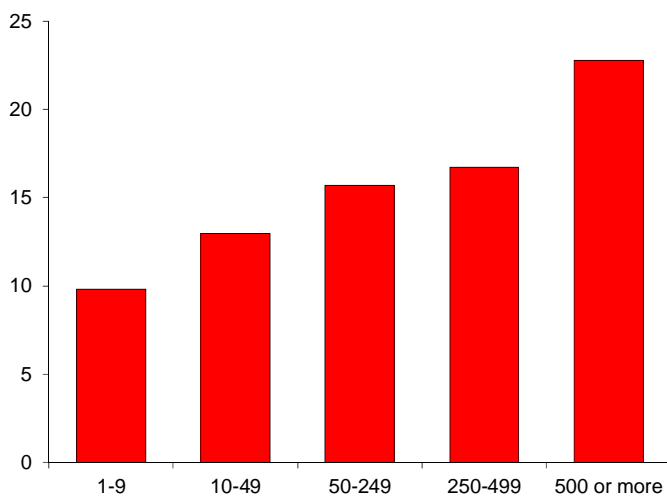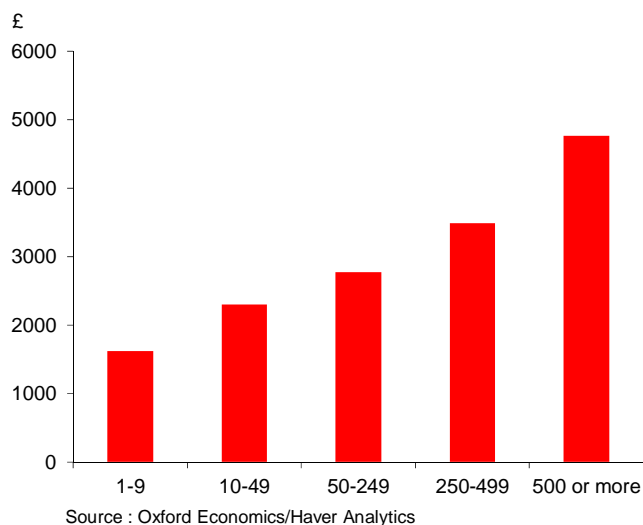**Figure 24: Cost of a day's temporary worker, firm size**

Figure 25: Average number of days temporary workers used, firm size

Source : Oxford Economics/Haver Analytics

Figure 26: Average spend on temporary workers, firm size

Source : Oxford Economics/Haver Analytics

3.4   Cost of HR processes

We also estimate the cost of internal human resources processes when taking on a new worker – these are set out in Figure 27 and Figure 28. On average firms report spending between 1.5 and 2 man-days of time completing HR tasks, at an average cost of between £150 and £200[6]. As with other costs, this tends to be lower amongst smaller firms, although not dramatically so[7].

Figure 27: Cost of HR processes by sector

Source : Oxford Economics/Haver Analytics

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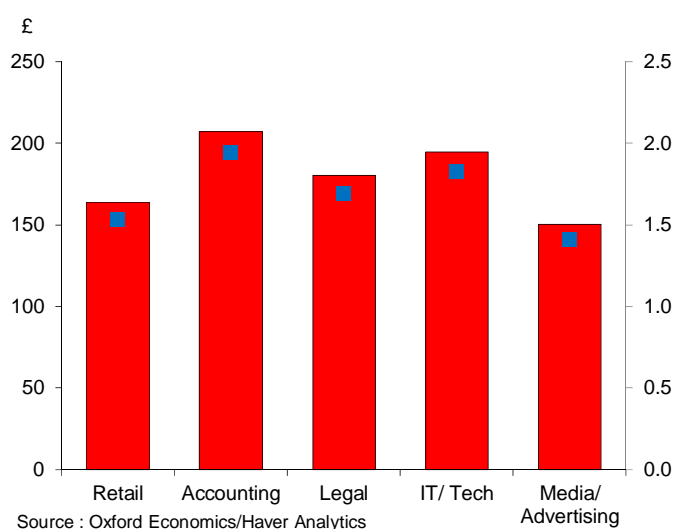
[6] This has been calculated using the average daily salary of an HR officer in the ASHE 2013.

[7] Our calculation here also uses the average cost of an HR officer as reported in the ASHE. However, it is questionable whether firms of fewer than 50 employees would necessarily employ a full time HR officer, it may be that these processes are done instead by other admin staff.

Figure 28: Cost of HR processes by firm size


Source : Oxford Economics/Haver Analytics
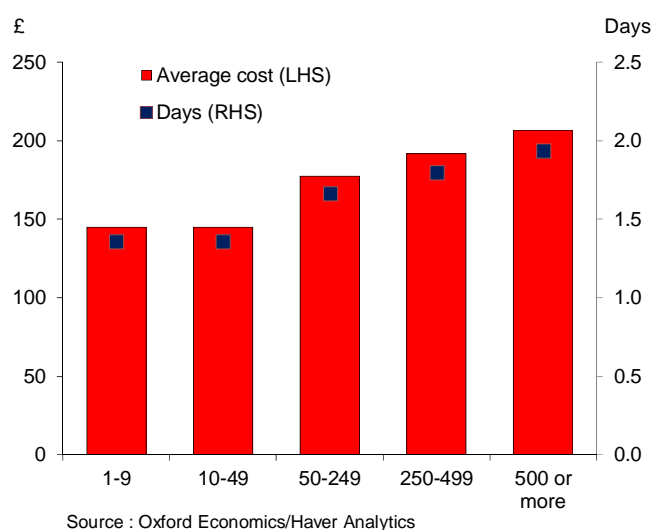
3.5   Cost of interviewing

Finally we asked firms to tell us how many candidates they typically invited to interview, and how many rounds were involved. This allowed us to estimate the cost of interviewing prospective replacements, based on a number of assumptions including the length of time each interview itself lasted (one hour), the time spent preparing beforehand and discussing afterwards (one hour in total), and the people doing the interviews (two director level staff members from the industry in question).

On average these costs amounted to between £700 and £800 per replacement worker looking across sectors. The exception is in the case of retail, where interviewing costs were around half as much, and this was entirely due to lower salary costs for interviewing in this sector – a director in retail earns on average £536 per week, less than half the average salary for Accounting, IT/Tech and Media directors[8].

Figure 29: Cost of interviewing candidates, sectors

Source : Oxford Economics/Haver Analytics

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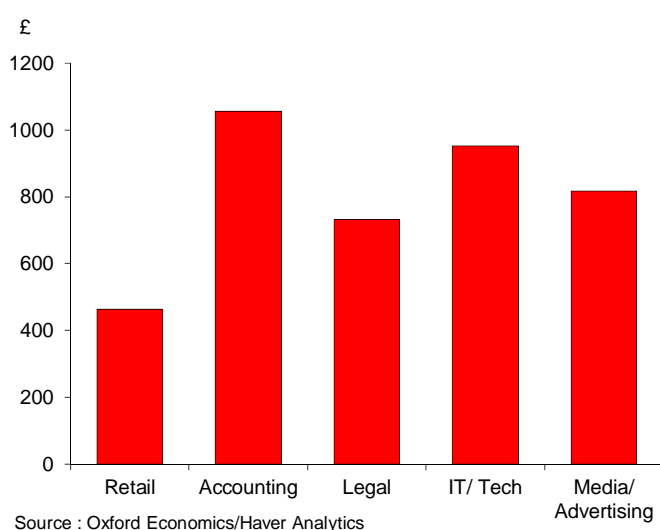
[8] In contrast to the other sectors there is no ASHE entry for Legal Directors, only a "Legal Professionals" category, which includes solicitors, barristers and judges. As such, our estimate for interviewing costs in legal might be an underestimate.

However, these results were more stable when looking across different firm sizes – the number of candidates invited to interview varied little, as did the typical number of rounds. As such, there was minimal difference in the cost burden to smaller firms (on average just short of £680 per worker replaced) and larger firms (just over £720)[9].

Figure 30: Cost of interviewing candidates, firm size
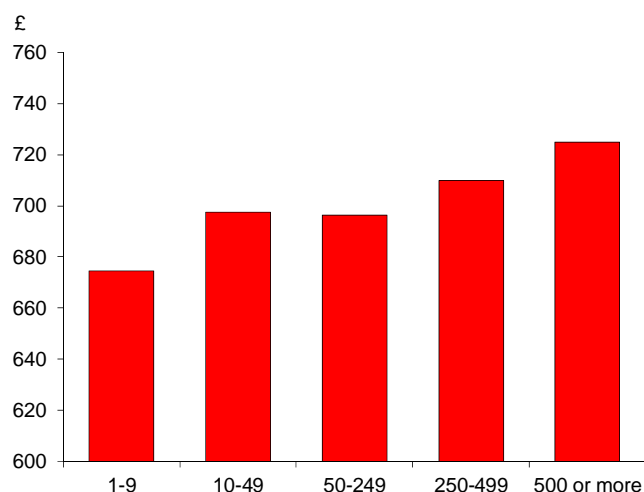
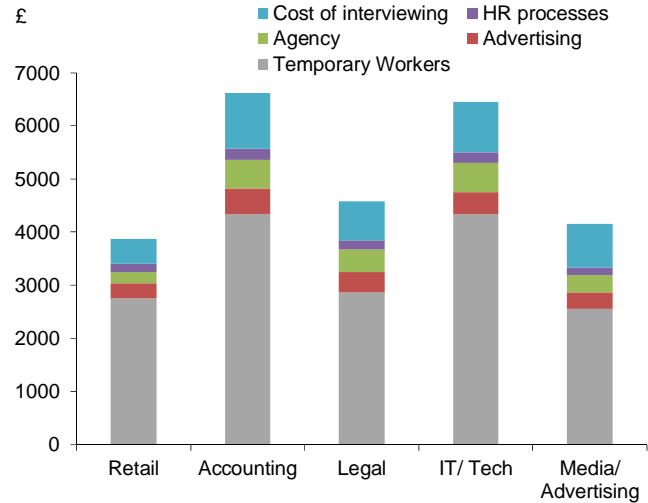Source : Oxford Economics/Haver Analytics

3.6   Overall logistical costs of labour turnover

The cost of temporary workers makes up around two-thirds of the total logistical cost of turnover across sectors, with the internal staff costs of interviewing accounting for the majority of the remainder. By contrast, agency fees, advertising costs, and HR processes generally add only a few hundred pounds each to the logistical cost of turnover.

In Figure 31 we set out our estimates of the total logistical cost of labour turnover, broken down by sector. Overall, accounting and IT/Tech firms bear the greatest logistical costs, mainly because they report needing to use a temporary worker for longer than other sectors while they go about securing a replacement.

The relative weight of temporary worker costs is also apparent at the firm size level, but as we have seen in previous sections smaller firms are able to cut the logistical cost of recruitment in a number of areas relative to larger ones. At the overall level this makes a substantial difference – the logistical costs of replacing a worker in a firm with 1-9 workers are estimated at less than £3,000, compared to over £6,000 amongst the largest firms.

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[9] It's possible these numbers slightly overstate the costs borne by small firms when interviewing. Smaller firms directly managed by the proprietor might not pay the same to senior managers as in larger firms. Our calculation rests on this assumption though, since a size/sector breakdown of average wages is not available in the ASHE.

Figure 31: Total logistical cost of labour turnover by sector

Source : Oxford Economics/Haver Analytics

Figure 32: Total logistical cost of labour turnover by sector
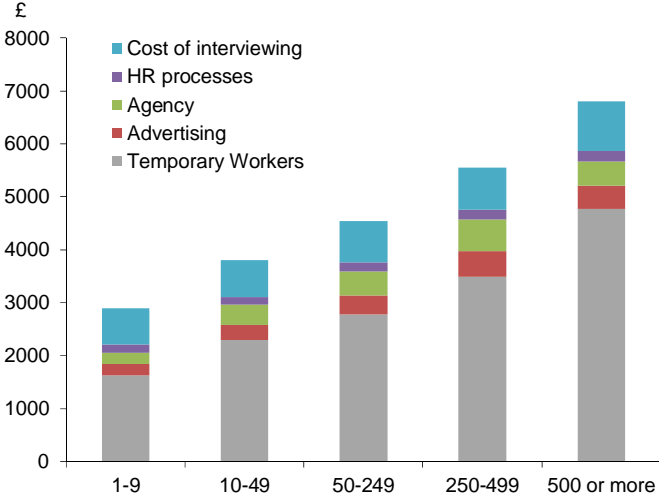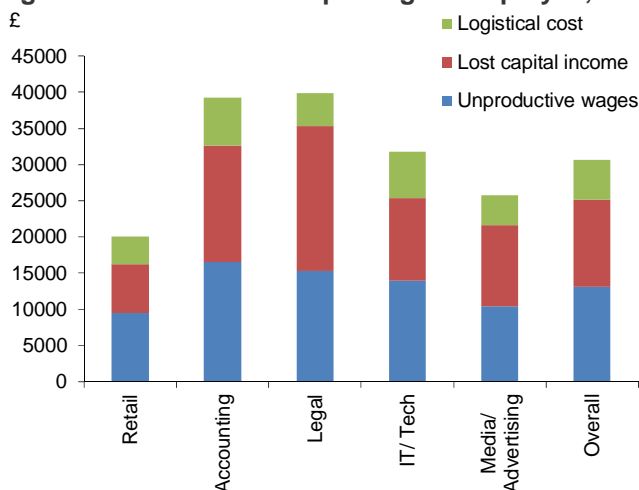

Source : Oxford Economics/Haver Analytics

4 Total cost of labour turnover

This final chapter amalgamates the findings of chapters 2 and 3, to produce overall estimates of the cost of labour turnover by sector and firm size. We then finally amalgamate up to the whole industry level, to focus on how much labour turnover costs sectors as a whole.

4.1 Overall logistical costs of labour turnover per worker

The overall cost of losing an employee is greatest in the accounting and legal sectors, at just short of £40,000 in both cases. In large part this reflects a greater loss of capital income (i.e. that part of the departing worker's value added that accrued to the firm's owners – often its senior management in these sectors) – logistical costs are comparable to other sectors and the "unproductive wages" element is not much greater than in the IT/Tech sector in particular.

**Figure 33: Total cost of replacing an employee, sectors**

Source : Oxford Economics/Haver Analytics

As already noted at length through this report, smaller firms seem able to replace workers at much lower cost, with the smallest firms managing to get a new employee in and up to optimal productivity at a total cost of £22,629, compared to over £26,000 for the 10-49 employee group, and over £30,000 for firms with between 50 and 249 employees.

There are a number of possible explanations for why this might be – in logistical costs it could be that smaller firms are less able to justify expenditure on advertising, agencies, and temporary workers, preferring to "make do", find workers through informal channels, or draw in family and friends to help out during periods of staff shortages. As far as efficiency costs are concerned, it could be that fewer levels of management between new workers and senior management/owners facilitates faster learning and more honest feedback during a worker's early time at the firm. Nevertheless, our analysis clearly demonstrates that smaller firms get new workers up to speed more quickly and hence at lower cost.

**Figure 34: Total cost of replacing an employee, firm size**
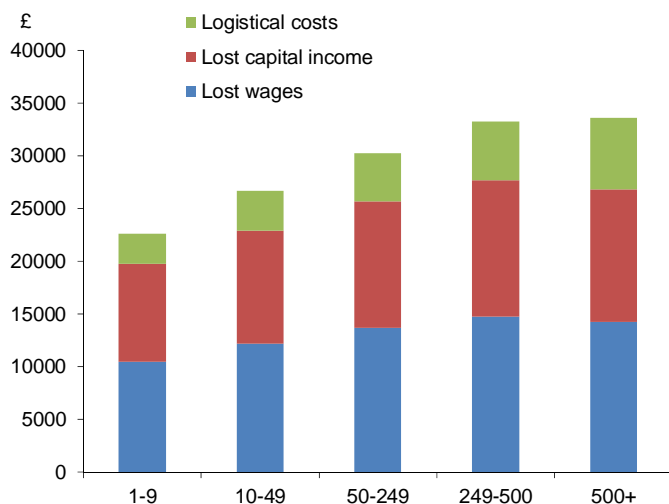
Source : Oxford Economics/Haver Analytics

4.2   Labour turnover at the sectoral level

Thus far we have focussed on the cost of labour turnover at an individual level (that is, the cost of replacing an individual worker). However in this final section we turn our focus to the sectoral level, to ask how much the turnover of workers earning above £25k cost the legal sector, the retail industry, and so on.

Figure 35 shows the rate and level of labour turnover amongst earners over £25,000 in our five sectors of interest, based on a combination of LFS and ASHE data. We used LFS data to identify the proportion of workers in each of our sectors of interest who were new to their current firm within the past year[10], and the ASHE to identify the total workforce earning more than £25,000 per annum.

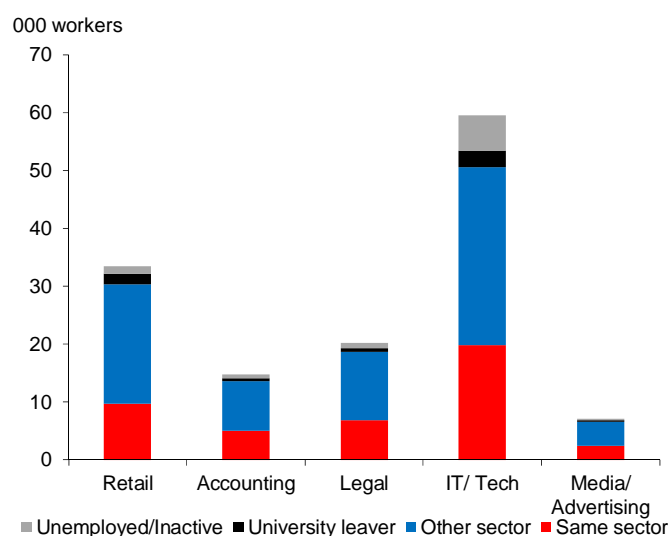**Figure 35: Total cost of replacing an employee, firm size**

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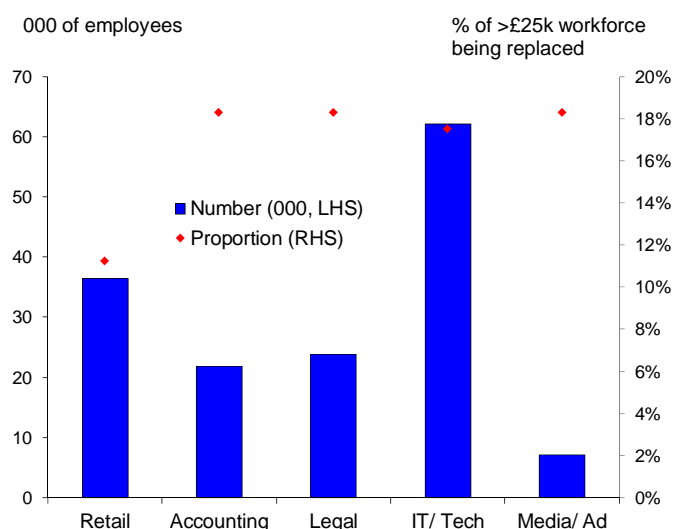
[10] The highly detailed nature of our LFS data request meant that in order for the data to be non-disclosive (i.e. possibly reveal information about individuals themselves) we had to amalgamate the Accounting, Legal and Media sectors at the "Professional and Scientific Activities" industry level. The data on the number of workers is taken from the ASHE though, which does contain data for each sector.

The first point of interest is that turnover of workers in the retail sector is much lower than in the others. This might reflect a less buoyant market for retail workers, partly due to the impact of the economic downturn and partly due to the cannibalization of high street activity by the internet. In these circumstances senior retail workers might be less willing to risk a job move in case it ultimately doesn't work out and they need to look again, preferring instead to remain with the certainty of their current employer. By contrast in sectors where demand and hiring is more buoyant, workers might be more willing to risk a move.

The second point of interest however is that even though relatively few earn above £25,000, and of these fewer seem keen to move jobs, the sheer size of the retail sector (over 2m employees in all) means that the sector turns over the second largest number of £25k+ employees, second only to the IT sector. Even though turnover is more frequent in the professional services sectors (Accounting, Legal and Media/Advertising), these sectors only have a couple of hundred thousand employees, so the actual number of employees turned over is lower.

The next question to consider in calculating the bill from labour turnover is where replacement employees came from – since as we have seen, some workers take longer to get up to speed than others. This is set out in Figure 36, using more data from the LFS. Most (90% or so in each sector) new workers tend to come either from the same sector, or more typically from another sector – either way, from another job. Relatively few workers, less than 10% came to their £25,000 per annum job in these sectors either straight from university or from unemployment.

Figure 36: Where do replacement workers come from?

Combining these figures with the per-worker cost of replacing departed employees, we are then able to calculate the total cost of labour turnover by sector. This is set out in Figure 37 and Figure 38. At the aggregate level, we estimate that turnover of £25k+ workers costs retailers in the region of £600m, a comparable figure to Accountancy firms, and around £200m less than Legal firms. Media and Advertising firms (which account for by far the smallest sector, with a total output of just short of £8bn, compared to around £20bn in Accounting and Legal, and over £70bn in Retail) face total costs of £184m.

However, as a proportion of total output in the sectors, Accounting, legal and IT/Tech face the stiffest losses from labour turnover – equivalent to 3.5%of turnover in Accounting and Legal, and closer to 4% for IT/Tech. In retail, which as we have seen relies much more on lower paid workers, the relative cost of turnover amongst staff with salaries of £25k+ is much lower, at 0.9%.

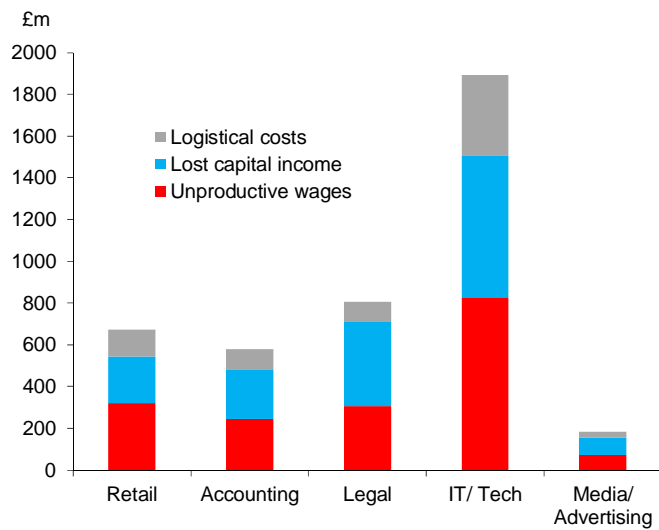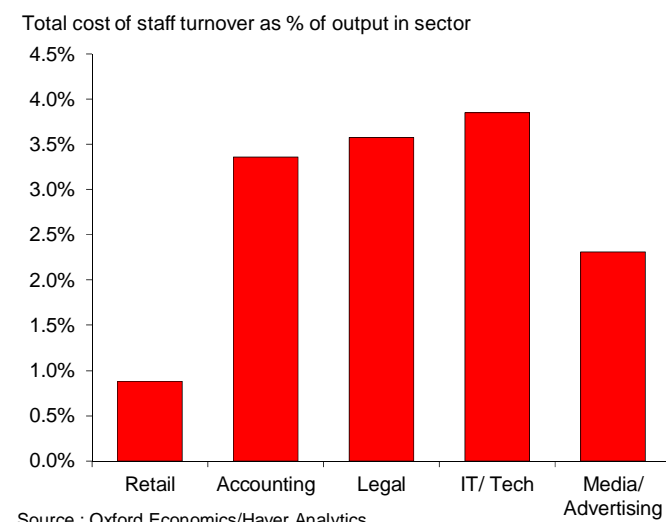**Figure 37: The total cost of labour turnover by sector**

£m

Figure 38: The total cost of labour turnover by sector

Total cost of staff turnover as % of output in sector

Source : Oxford Economics/Haver Analytics

Annex A: Concept of optimal productivity and efficiency cost estimation

Optimal productivity is defined as the point of which an employee is fully contributing the level of output that is expected of an established worker in that role. We have examined in depth the time taken to reach optimal productivity, but there is also a key question over what path a worker takes to this level of productivity – some workers might pick up skills quickly, but their rate of learning slows as they get closer to optimal productivity, while others struggle at first but then pick up their rate of learning as time goes on. Others still might learn at a steady rate. The worker's learning style will determine the value of output lost in Figure 4.

**Figure 39: Learning styles and productivity level**

Productivity as % of optimal productivity

Time in job as % of time to optimal productivity
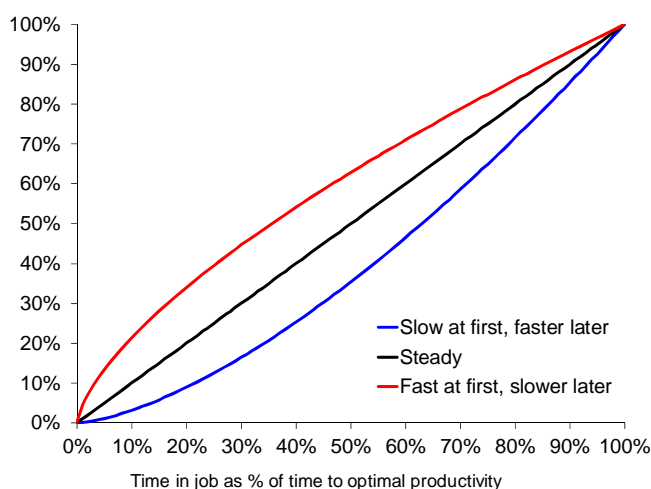
Combining the shape of the above curves with 1) the number of weeks to optimal productivity by worker type in each sector and 2) the proportion of firms who told us that worker type/sector combination learned in each of the three styles set out above allowed us to produce paths to optimal productivity for each sector and each worker type. An example is set out for the legal sector in Figure 40. Once this curve is estimated it is relatively simple to estimate the number of "lost weeks", essentially by adding up the proportions above the line for each week until optimal productivity (100% in the chart) is reached.

Figure 40: Productivity over time – Legal sector

Productivity versus "optimal" productivity

Weeks since starting role
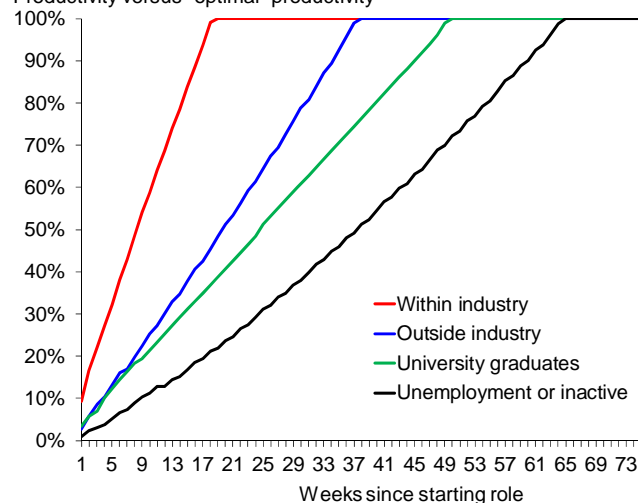
This number of "lost weeks" then feeds into our calculation for the "lost wages" portion of our efficiency costs, and through using the capital share of income in GVA (as discussed in Chapter 2 itself), we arrive at lost capital income from labour turnover.

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