

# Job Creation and Destruction in the UK 1998-2018

**ERC Insight Paper** 

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## Job Creation and Destruction in the UK 1998-2018

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#### About ERC

The Enterprise Research Centre is an independent research centre which focusses on SME growth and productivity. ERC is a partnership between Warwick Business School, Aston Business School, Queen's University School of Management, Leeds University Business School and University College Cork. The Centre is funded by the Economic and Social Research Council (ESRC); Department for Business, Energy & Industrial Strategy (BEIS); Innovate UK, the British Business Bank and the Intellectual Property Office. The support of the funders is acknowledged. The views expressed in this report are those of the authors and do not necessarily represent those of the funders.



Using an established international analytical framework for job creation and destruction we observe that just over a quarter of all jobs in the private sector were either destroyed or created over a typical 12 month period – a remarkable level of turbulence in the UK labour market which provides a more granular analysis of the recent so-called 'employment miracle'. Despite the rise in employment since the Great Recession there has been a slight fall in the measure of business dynamism which is a cause for concern given its importance to the overall level of productivity in the economy.

#### Business Dynamism

There is a clear connection between 'business dynamism' and the growth in productivity at the national level. Unpacking what this means in the context of the UK will drive the nature and intensity of local industrial strategies and future business support interventions.

The intention here is to present analysis of how the business stock in the private sector in the UK has changed over 20 years from 1998 to 2018 with a specific focus on the key dynamics of job creation and destruction. The analysis is based on a simple accounting framework which has been used in many previous studies<sup>1</sup> which sets out the level of turbulence in jobs and identifies the type of firms (i.e., size) which most contribute to job creation / destruction in the UK. We do this by using employee data for all employer enterprises in the UK private sector and create the average annual job creation and destruction rates between 1998 and 2018, as well as entry and exit rates, and disaggregated both these by sector, size and region.

The data used in this analysis has been compiled by the Office for National Statistics (ONS) and is called the Business Structure Database (BSD) and is accessible through the ONS Virtual Micro-Data Lab (VML). Virtually all UK firms with employees are covered by the BSD (which contains all VAT and/or PAYE registered enterprises). The data does not distinguish between part-time and full-time workers nor provide a breakdown between skill levels or functions (management, office workers or operatives). In brief, the analysis simply treats a job as an employee in the business irrespective of their role and skill level<sup>2</sup> operatives). In brief, the analysis simply treats a job as an

<sup>&</sup>lt;sup>1</sup> See, for example, Davis et al., (2008); "Turmoil and Growth: Young Businesses, Economic Churning and Productivity Gains".

<sup>&</sup>lt;sup>2</sup> The BSD draws on the Inter Departmental Business Register (IDBR) which in turn relies heavily on data collected by Her Majesty's Revenue and Customs (mainly VAT and PAYE returns). The BSD itself consists of a series of annual snapshots (March each year) of the IDBR which we have linked together to form firm-level longitudinal records. The resulting dataset has some disadvantages. Although the IDBR is a 'live register' which is updated more or less continuously (and the data is then picked up by the BSD every March) there are lags in the data. For example, because the IDBR is a 'live' register the March snapshots are not a conventional time series – they do not necessarily record data which reports activity levels for March, they are data as at March. Further, that data at March each year can refer to a range of time periods over the previous years. We make the assumption that the nature of those lags are consistent in each annual snapshot.



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#### Job Creation and Destruction Accounts

We use our longitudinal firm-level BSD dataset covering the 20 years 1998 to 2018 to provide a summary of average annual rates of job creation and destruction, entry, exit and reallocation rates in the UK disaggregated by region and firm size (employment).

The job creation and destruction rates presented below are defined in the conventional way:

- Job Creation employment changes summed over all businesses that expand or start up in a given year.
- Job Destruction employment changes summed over all businesses that contract or exit in a year

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These job creation and destruction figures are expressed as rates by dividing by employment averaged over the current and previous year (businesses with no change in employment do not contribute to either job creation or job destruction). So the change in employment between two years – often referred to as the net employment change – is equal to the difference between job creation and job destruction over the period and the net employment *rate* equals the job creation *rate* less the job destruction *rate* 

The sum of the job creation rate and the job destruction rate is referred to as the **job reallocation rate.** It summarises the overall volume of change and in essence represents the 'reshuffling of job opportunities across locations' (Davis *et al.*, 1996)<sup>6</sup>. Tracking the job reallocation rate allows us to arrive at a measure of business dynamism for the economy. Figure 1 presents the job creation and destruction rates for the UK for the period 1998-2018.

We can see that there was very little variation in these rates of job creation and destruction over the period – averaging around 20-28% over 20 years (i.e., the job reallocation rates). Prior to the Great Recession the job reallocation rates averaged 27% compared to 22% since 2010. This is in marked contrast to the US where there is growing evidence that business dynamism and entrepreneurial activity are declining as over the last 30 years the number of start-ups and the scale of job reallocation rates have been in decline (Goldschlag and Tabarrok, 2018)<sup>7</sup>.

However, underneath this headline reallocation rate there are some interesting trends when we look at the individual components:

- Net employment change rose rapidly after the Great Recession<sup>8</sup> but has fallen in recent years.
- The Great Recession saw reduced job creation through entry and expansion, but what is very noticeable is the steady decline since the turn of the century in the amount of job creation through the expansion of existing businesses a challenge recognised by the recent BEIS Industrial Strategy White Paper.
- Job creation through start-ups, however, has been on the rise since the economic downturn but is now beginning to plateau.
- Job destruction through contraction fell steadily between 2010 and 2015 but there is clear evidence they have begun to rise since then and particularly in the last 2-3 years.

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<sup>&</sup>lt;sup>6</sup> Davis et al., (1996) <u>Job Creation and Destruction</u>, MIT Press: Cambridge Mass.

<sup>&</sup>lt;sup>7</sup> Goldschlag, N and Tabarrok, A (2018) "Is regulation to blame for the decline in American entrepreneurship?" *Economic Policy*, Vol. 33, Issue 93, pp 5-44.

<sup>&</sup>lt;sup>8</sup> Moved to the right in the graph due to the lagged nature of the data.





Figure 1: Job Creation and Destruction in the UK

Source: ONS Business Structure Database (1998-2018)

The job reallocation rate in the 12 months 2017-18 was 23% in the UK and translates into 4.9m jobs (Table 1). Overall, 2.25m job losses are compensated by 2.65m job gains resulting in net gain of just under 400,000 jobs.

What has changed when we compare with the previous 12 months? Job gains through businesses entering the market remained static at around 1 million jobs while expanding firms created an additional 180,000 jobs in 2017-18 compared to 2016-17. On the debit side there were an additional 400,000 job losses through the closure of businesses and a sharp rise in job losses through the contraction of existing businesses – an additional quarter of million job losses.

	Job Gains	Job Losses				
Start-ups	1,002,747					
Expansion	1,646,242					
Closure/Exit		951,915				
Contraction		1,307,640				
Total	2,648,989	2,259,555				
Net Job Change	+389,439					
Gross Job Churn	4,908,544					

Table 1: Job	Gains and Losses	in the	UK, 2017-18
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Source: ONS Business Structure Database (1998-2018)



So, overall, there are both positive and negative messages in the analysis but one should not be rushing to associate these with the current levels of uncertainty and stalled business environment in the UK economy. The key point to note is that there is an underlying level of turbulence in the private sector in periods of growth in the economy and this is an important indicator of business dynamism. It is the balance of the components which is important and the faltering level of job creation in business entry and the rise in job losses in existing businesses and though business exit are early signs of concern in the current economic context. Figure 2 illustrates quite clearly the changes in business entry and exit rates in recent years<sup>9</sup>.



#### Figure 2: Business Entry and Exit Rates in the UK

Source: ONS Business Structure Database (1998-2018)

#### Job Creation and Destruction Accounts by Industrial Sector

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The components of job creation and destruction by broad sector grouping over the 20 years from 1998 are set out in Figure 3. The lowest levels of the job reallocation rate (~20 per cent) are observed in the distribution, wholesale and retail and manufacturing sectors with financial services just below the national average. All the other sectors have a rate above the national average over 26 per cent – with business services recording the highest rate of nearly 34 per cent. We can see that these higher rates of job reallocation is driven by an excess of job gains over job losses.

<sup>&</sup>lt;sup>9</sup> Note: defined as what the OECD refer to as an 'employer enterprise' in their business demography analysis.





Figure 1: Job Creation and Destruction by Industrial Sector (Average Rates 1998-2018)

Source: ONS Business Structure Database (1998-2018)

A closer examination of three contrasting sectors in the last 12 months in terms of their job reallocation rate (i.e., manufacturing and business services) provides some insights into the way the private sector is beginning to react to increasing levels of uncertainty (Table 2).

**Manufacturing:** overall, job gains exceeded job losses as net employment increased by nearly 33,000 jobs between 2017 and 2018. The gross job churn was over 400,000 jobs. This small net increase was due to both new business entry and the expansion of existing businesses exceeding exits and the contraction of existing businesses. However, the expansion of existing businesses was more important by a factor of almost 2 compared to business entry. Looking at the last five years there is nothing exceptional about the last 12 months.

**Business Services:** overall, job gains exceeded job losses as net employment increased by just over 136,000 jobs between 2017 and 2018. The gross job churn was nearly 2 million jobs. Job losses through exit exceeded job creation through new business entry and the sector grew because the expansion of existing businesses outweighed job losses through contraction. Looking at the last five years there has been a sharp rise in job losses through exit and contractions combined with a falling level of job creation through new business entry. This has been compensated by a rise in the scale of business expansion. This has been especially pronounced in the last 12 months.

**Personal Services:** overall, job gains exceeded job losses as net employment increased by nearly 31,000 jobs between 2017 and 2018. The gross job churn was just under 400,000 jobs. Job gains through business expansion was twice as important as job creation through business entry. There has been a sharp upturn in the scale of job losses through contraction in the last 12 months and a marked downturn in the number of jobs created through business entry since 2015.



	Manufacturing		Business Services		Personal Services	
	Job Gains	Job Losses	Job Gains	Job Losses	Job Gains	Job Losses
Entries	82,558		375,062		70,341	
Expansion	147,883		659,649		138,855	
Exits		73,215		422,367		56,849
Contraction		124,419		476,179		121,416
Total	230,441	197,634	1,034,711	898,546	209,196	178,265
Net Job Change	32,807		136,165		30,931	
Gross Job Churn	428,075		1,933,257		387,461	
Job Reallocation Rate	16.1		30.6		22.9	

### Table 2: Job Gains and Losses in the UK Manufacturing and Business Services Sectors, 2017-18

Source: ONS Business Structure Database (1998-2018)

This brief overview of three sectors demonstrates that underneath the increasing levels of employment in the private sector in recent years the balance between the four main components of job reallocation varies from sector to sector. More importantly, this

#### Summary

This is an initial analysis of the job creation and destruction accounts for the UK since 1998 and further work is currently underway looking at the types of firms responsible for job creation. For example, the immediate next step is to understand the role of firm size, firm age, region, multi-plant status and country of ownership which are the variables readily available in the BSD. By tracking reallocation rates over time as a measure of business dynamism and hence productivity we can then establish which subsets of firms are contributing to increases in overall productivity as resources (i.e., labour) shifts, or reallocates, from low-productivity to high-productivity firms and thus driving economic efficiency and growth.

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