



Globalisation, Technology and Demographic Change and the Future of Work

Debate on 12 October 2017

Summary

On 12 October 2017, the House of Lords is due to debate a motion, moved by Lord Knight of Weymouth (Labour), that “this House takes note of the effect of globalisation, technology and demographic change on the future of work, and of the public policy response to those changes”. Lord Knight is a member of the Future of Work Commission, a group chaired by the Deputy Leader of the Labour Party, Tom Watson. The Future of Work Commission’s website states that it intended to deliver policy recommendations in September 2017 regarding the implications of new technology for work.¹

This short briefing provides an overview of globalisation, technology and demography and some of the ways in which they affect work and employment in the UK. It then summarises some relevant public policy proposals and suggests material for further reading.

Globalisation

A recent report by the Organisation for Economic Cooperation and Development (OECD) defines globalisation as “the economic integration of different countries through growing freedom of movement across national boundaries of goods, services, capital and people”.² The OECD argues that globalisation has occurred more rapidly in recent decades:

The ratio of global trade to world gross domestic product (GDP) doubled between 1990 and 2015, from 30 percent to around 60 percent. Foreign direct investment flows rose strongly too, from less than 0.5 percent of world GDP in the early 1980s to about 2.5 percent over the last ten years. And the flow of people across borders picked up markedly. The increase in the number of international migrants averaged about 1 million per year in the period 1960–80, but rose to about 5 million per year since 2000.

Globalisation has coincided with a decrease in extreme global poverty³ and a decrease in inequality between countries.⁴ However, globalisation has also coincided with an increase in inequality within countries according to some measures.⁵

The OECD summarises the various effects of globalisation on the labour market in developed economies such as UK:

On the one hand, as the importance of [global value chains] grows, part of domestic production is offshored and certain skills may no longer be needed, leading to potential displacement of workers and substantial labour reallocation across occupations and sectors. This may exacerbate the process of de-industrialisation and of job polarisation, since middle-skill jobs with a higher routine content have a greater potential to be offshored. On the other hand, as firms change their production

structures to take part in [global value chains], they adopt new processes that may have positive effects on productivity and competitiveness, and thus beneficial implications for wages and job quality. Moreover, international trade may have direct positive effects on overall employment. It has been estimated that between 30 percent and 40 percent of jobs in the business sector in most European countries in 2011 were sustained by consumers in foreign markets.⁶

Public perceptions of globalisation are mixed. According to the Pew Research Centre's Spring 2016 Global Attitudes Survey, 64 percent of respondents from the UK agreed with the statement that the UK's involvement in the global economy is a good thing because it provides the UK with new markets and opportunities for growth, and 29 percent disagreed.⁷

Technology

There are a wide variety of ways in which technological changes have affected work in the UK, and how they may do so in the future.

Digital Sector and Skills

The digital sector currently makes a significant contribution to the UK economy. In 2015, the gross value added (GVA) of the digital sector was an estimated £118.4 billion, which accounted for 7.1 percent of the UK's total GVA.⁸ There were just under 1.5 million jobs in the digital sector in 2016, accounting for 4.5 percent of UK jobs in 2016.⁹

In June 2016, the House of Commons Science and Technology Committee argued that the UK is currently facing a "digital skills crisis".¹⁰ In particular, the Committee observed, there are skills shortages in specialised areas of the digital economy such as data science, cyber security and data security. The Government's *UK Digital Strategy 2017* suggested that 90 percent of all jobs within the next 20 years "will require some element of digital skills", and that "1.2 million new technical and digitally skilled people are needed by 2022 to satisfy future skills needs".¹¹

Online Platforms

The development of online service platforms has resulted in debate about the advantages and disadvantages of the so-called 'gig economy', which enables people to work flexibly but can also have a negative impact on health and well-being.¹² There have also been legal challenges regarding the rights of those who find work via such platforms.¹³

Automation and Artificial Intelligence

Increasing levels of automation and the use of artificial intelligence are changing the world of work in the UK, although the probable extent of this impact is debated. Evidence from the OECD suggests that across 21 OECD countries, an average of 9 percent of jobs are at high risk of automation, and another 25 percent are likely to be dramatically reshaped because of automation.¹⁴ A study undertaken by the consultancy firm PriceWaterhouseCoopers found that approximately 30 percent of jobs in the UK are at high risk of automation by the early 2030s, primarily in the sectors of wholesale and retail trade, manufacturing, administrative and support services, and transport and storage.¹⁵

Regarding the impact of these changes, the OECD argues that the recent stagnation of middle-class incomes in many advanced economies is largely due to technological change rather than globalisation.¹⁶

However the *Economist* argues that “in the past technology has always ended up creating more jobs than it destroys”, and that “automating a particular task, so that it can be done more quickly or cheaply, increases the demand for human workers to do the other tasks around it that have not been automated”.¹⁷ The *Economist* also argues that new jobs will be created in the field of artificial intelligence itself.

Demography

In 2016 the UK’s population was 65.6 million.¹⁸ People aged 65 and over made up 18 percent of the population, an increase of 2.1 percent since 2006. The Office for National Statistics (ONS) provides a summary of changes in the age composition of the UK’s population since 1979, and projections up to 2046.¹⁹

	0 to 15 years (%)	16 to 64 years (%)	65 years and over (%)	UK population
1976	24.5	61.2	14.2	56,216,121
1986	20.5	64.1	15.4	56,683,835
1996	20.7	63.5	15.9	58,164,374
2006	19.2	64.9	15.9	60,827,067
2016	18.9	63.1	18.0	65,648,054
2026	18.8	60.7	20.5	69,843,515
2036	18.0	58.2	23.9	73,360,907
2046	17.7	57.7	24.7	76,342,235

According to the ONS, the increase in the proportion of people over the age of 65 is due to changes in mortality, fertility, health provisions and lifestyles.²⁰ The Resolution Foundation has highlighted the fact that a decades-long increase in the ratio of workers to non-workers, resulting from the relative size of the generation born between 1945 and 1965, has started to be reversed as this generation enters retirement.²¹

Employment rates among both older men and older women have increased since the mid-1990s, however the length of working lives varies across the population: for example, London and the South East have the highest percentage of men above state pension age in employment, at 16.9 percent, and the North East has the lowest at 9.5 percent.²² A 2013 report from the House of Lords Public Service and Demographic Change Committee stated that as a result of increases in life expectancy, in the future more people may retire later in life.²³ The report also noted that current levels of pension savings will not be enough to meet the expectations of many upon retirement.

A 2016 report from the Government Office for Science highlighted that an ageing population could have an impact on the size of the workforce because of the extra caring responsibilities taken on by those of working age.²⁴ Carers often withdraw from paid work and do not return, and they are less likely to work full-time and are more likely to be economically inactive.

Policy

Taylor Review of Modern Employment Practices

In October 2016, the Government launched a review of modern employment practices. The review, led by Matthew Taylor, sought to “fully understand the impact of modern working practices and how different labour markets work” and to consider the implications of new forms of work on workers’ rights

and responsibilities and employers' freedoms and obligations.²⁵ The review panel published their report on 11 July 2017. The authors argued that the UK has "distinctive strengths [in its] existing labour market and framework of regulation", but that "innovative forms of working are causing us to question established norms and how our current legislative framework fits with these developments".²⁶

The report recommended "seven steps" to achieve "fair and decent" work for all, which are in summary:²⁷

- The same basic principles should apply to all forms of employment in the British economy: there should be a fair balance of rights and responsibilities, everyone should have a baseline of protection and there should be routes to enable progression at work. Taxation of labour should be more consistent across employment forms and the rights and entitlements of self-employed people should be improved.
- Worker (or 'Dependent Contractor', as the report suggests renaming it) status should be maintained but the distinction between workers and those who are legitimately self-employed should be clearer.
- The law should help firms make the right choices and individuals to know and exercise their rights. The costs associated with taking someone on as an employee are already high and increasing these further should be avoided. 'Dependent Contractors' are the group most likely to suffer from unfair one-sided flexibility, therefore there should be additional protections for this group and stronger incentives for firms to treat them fairly.
- Responsible corporate governance, good management and strong employment relations should be promoted.
- Everyone should feel they have realistically attainable ways to strengthen their future work prospects and that they can record and enhance the capabilities developed in formal and informal learning and in on-the-job and off-the-job activities.
- A more proactive approach to workplace health should be developed.
- The National Living Wage should be accompanied by sectoral strategies engaging employers, employees and stakeholders to ensure that people are not stuck at the living wage minimum or facing insecurity but can progress in their work.

UK Digital Strategy

On 1 March 2017, the Department for Digital, Culture, Media and Sport published the *UK Digital Strategy 2017*, which details seven objectives:

- building world-class digital infrastructure for the UK;
- giving everyone access to the digital skills they need;
- making the UK the best place to start and grow a digital business;
- helping every British business become a digital business;
- making the UK the safest place in the world to live and work online;
- maintaining the UK Government as a world leader in serving its citizens online; and
- unlocking the power of data in the UK economy and improving public confidence in its use.²⁸

The strategy stated that:

[...] as the digital economy grows, there will be even greater demand for people with specialist digital skills. At present, the UK has a supply of specialist skills that scores well above the EU average, but to keep ahead we will have to keep improving. As we leave the European Union, it will be even more important to ensure that we continue to develop our home-grown talent, up-skill our workforce and develop the specialist digital skills needed to maintain our world-leading digital sector.²⁹

To achieve the objectives set out in the strategy, the Government says that it will improve the teaching of computer science in schools, provide basic digital skills training for adults, and improve the provision of specialist digital training in further education and apprenticeships.³⁰

Fuller Working Lives

In February 2017, the Government published the report *Fuller Working Lives*, which encourages increased labour market participation among the over-50s. In this document the Government argued that it is beneficial for both individuals and employers if people continue working until later in life and highlighted some policies it has already enacted to promote this, such as abolishing the default retirement age and extending the right to request flexible working to all employees who have six months continuous service.³¹ The report also details policies currently underway, such as implementing the Government Carers Strategy and reforming the adult skills system.

Labour Party Policy

In his speech to the Labour Party conference on 27 September 2017, the Labour Leader, Jeremy Corbyn, addressed the prospect of increasing automation in the economy. He stated that “the tide of automation and technological change means retraining and management of the workforce must be centre-stage in the coming years”, and that the Labour Party would establish a “National Education Service” which would provide free tuition for all college courses and technical and vocational training.³²

Further Information

- Organisation for Economic Cooperation and Development, [Fixing Globalisation: Time to Make it Work for All](#), April 2017
- House of Lords Library, [Digital Skills in the United Kingdom](#), 10 August 2017
- House of Lords Library, [Taylor Review of Modern Employment Practices](#), 17 July 2017
- Department for Work and Pensions, [Economic Labour Market Status of Individuals Aged 50 and Over, Trends Over Time: September 2017 \(Experimental\)](#), 7 September 2017
- House of Commons Work and Pensions Committee, [Self-Employment and the Gig Economy](#), 1 May 2017, HC 847 of session 2016–17
- Organisation for Economic Cooperation and Development, [Employment Outlook 2017](#), 2017, pp 81–119

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- ¹ More information about the Future of Work Commission can be found on its [website](#).
- ² Organisation for Economic Cooperation and Development, [Fixing Globalisation: Time to Make it Work for All](#), April 2017, p 1.
- ³ World Bank, [Poverty Headcount Ratio at \\$1.90 a Day \(2011 PPP\) \(Percent of Population\)](#), accessed 5 October 2017.
- ⁴ Organisation for Economic Cooperation and Development, [Fixing Globalisation: Time to Make it Work for All](#), April 2017, p 3.
- ⁵ *ibid.*
- ⁶ Organisation for Economic Cooperation and Development, [Employment Outlook 2017](#), 2017, pp 91–2.
- ⁷ Pew Research Centre, [Spring 2016 Survey Data](#), accessed 5 October 2017.
- ⁸ Department for Digital, Culture, Media and Sport, [DCMS Sectors Economic Estimates](#), August 2016, p 7, table 3.1.
- ⁹ Department for Digital, Culture, Media and Sport, [DCMS Sectors Economic Estimates 2017: Employment and Trade](#), 26 July 2017, p 7, table 3.1.
- ¹⁰ House of Commons Science and Technology Committee, [Digital Skills Crisis](#), 13 June 2016, HC 270 of session 2016–17, p 13.
- ¹¹ Department for Digital, Culture, Media and Sport, [UK Digital Strategy 2017](#), 1 March 2017.
- ¹² See for example: Sarah O'Connor, [Driven to Despair—the Hidden Costs of the Gig Economy](#), *Financial Times* (£), 22 September 2017.
- ¹³ See for example: Sarah O'Connor, Jane Croft and Madhumita Murgia, [Uber Drivers Win UK Legal Battle for Workers' Rights](#), *Financial Times* (£), 28 October 2016.
- ¹⁴ Organisation for Economic Cooperation and Development, [Fixing Globalisation: Time to Make it Work for All](#), April 2017, p 17.
- ¹⁵ PriceWaterhouseCoopers, [UK Economic Outlook](#), March 2017, p 32.
- ¹⁶ Organisation for Economic Cooperation and Development, [Fixing Globalisation: Time to Make it Work for All](#), April 2017, p 9.
- ¹⁷ *Economist*, [Automation and Anxiety](#), 25 June 2016.
- ¹⁸ Office for National Statistics, [Overview of the UK Population: July 2017](#), 21 July 2017.
- ¹⁹ *ibid.*
- ²⁰ *ibid.*
- ²¹ Resolution Foundation, [Live Long and Prosper?](#), January 2017, p 4.
- ²² Government Office for Science, [Future of an Ageing Population](#), 7 July 2016, pp 32–3.
- ²³ House of Lords Public Service and Demographic Change Committee, [Ready for Ageing?](#), 14 March 2013, HL Paper 140 of session 2012–13, p 8.
- ²⁴ Government Office for Science, [Future of an Ageing Population](#), 7 July 2016, p 37.
- ²⁵ Department for Business, Energy and Industrial Strategy, [Taylor Review on Modern Employment Practices Launches](#), 30 November 2016.
- ²⁶ Department for Business, Energy and Industrial Strategy, [Good Work: The Taylor Review of Modern Working Practices](#), 11 July 2017, p 7.
- ²⁷ *ibid.*, p 9.
- ²⁸ Department for Digital, Culture, Media and Sport, [UK Digital Strategy 2017](#), 1 March 2017.
- ²⁹ *ibid.*
- ³⁰ *ibid.*
- ³¹ Department for Work and Pensions, [Fuller Working Lives: A Partnership Approach](#), February 2017, pp 35–41.
- ³² *New Statesman*, [Jeremy Corbyn's 2017 Conference Speech in Full](#), 27 September 2017.

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