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The Employment Studies newsletter reports on IES research on labour market and employment policy and practice in the UK and abroad. It is aimed at those interested in research to inform the development and implementation of public policy. Two other publications, *Network News* and *HR Insight*, provide briefings on IES employer-related work.



NHS nurses: filling the recruitment gap

Chiara Manzoni, IES Research Officer

IES recently undertook research for the Migration Advisory Committee (MAC) to investigate the reasons behind the variation in levels of recruitment of non-European Economic Area (EEA) nurses across NHS trusts. The research reveals the scale of the challenges facing the NHS nursing workforce and provides detailed evidence and a clear picture of the nursing shortage due to a range of demand-and supply-side factors.

The study¹ is based on quantitative analysis of available data, as well as qualitative interviews with NHS trusts and health sector experts. The focus of the research was the NHS in England as data constraints make it difficult to extend quantitative analysis uniformly across the UK and most of the Certificates of Sponsorship were issued in England. The report identifies three key

causes of the current nursing shortage:

- 1. The ageing of nursing workforces.** This is a critical factor. The proportion of the nursing workforce over the age of 45 now stands at around 45 per cent, and the report found that one in three nurses is due to retire in the next ten years.

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2. Inadequate numbers. The report reveals the lack of a long-term Government plan in terms of the retention of nurses as well as the funding of places for nursing students. Retention has been an issue, with growing numbers of NHS nurses leaving their jobs.

3. An increase in demand. Since the 2013 Francis Report², safe staffing levels and increasing healthcare demands on NHS services have pushed up the demand for nurses, while at the same time, Trusts have faced greater financial difficulties that have made the recruitment of nurses more challenging.

How to fill the gap?

Our research found that there is a need for urgent investment in a 'homegrown' nursing workforce to fill these future posts and that this will require adequate and sustained investment in workforce planning. Indeed, there are not enough nurses entering the system to fill the gap or offset the loss of skills and experience that will take place when one third of nurses reach retirement age in the next ten years. This is not just about numbers because workforce planners need to consider the years of experience, skills and expertise that these nurses take with them when they retire. Replacing this will be an altogether more challenging task.

The report highlights the key role of international and EU nurses in easing the pressures on the nursing workforce, as together they make up around 12 per cent of nurses in the UK. IES researchers mapped NHS Trusts' recruitment of international nurses and found that reliance on this workforce is greatest in London and the South East. IES also found that the composition of the overseas nursing workforce has shifted dramatically in recent years; nurses

from the EU are now increasingly prevalent, reflecting a change in recruitment practices due to tighter immigration rules.

The role of international recruitment needs to be well aligned with, and considered alongside, other aspects of workforce planning to avoid contributing to future boom and bust cycles and restricting opportunities for domestic entrants to train as nurses. International recruitment has an important role to play in the future planning of the domestic nursing workforce, but ideally this role should be a marginal one that aims to provide a buffer against the effects of temporary labour shortages.

International nurses from non-EU countries such as India and the Philippines have always played an important role in the NHS, and continue to do so, making up eight per cent of the total nursing workforce in England. In March 2016, the MAC recommended that the UK government grant up to 15,000 visas over the next three years to non-EEA nurses in order to ease the current nursing shortage. This will reduce the immediate to short-term pressures on the NHS but it is questionable whether this will be enough to make up for the loss of a third of the nursing workforce over the next ten years.

Another option in terms of filling the gap could be to recruit more nurses from the EEA. Nurses from EEA countries constitute 4.5 per cent of the total nursing workforce in England (up from just over one per cent in 2009), mostly from countries such as Spain, Portugal and Ireland. However, with the uncertainty around the status of EEA workers in the UK, following the EU referendum result, the recruitment pipeline from Europe is likely to be hit hard.

Policy recommendations

More evidence of the effectiveness of interventions designed to increase retention in the NHS would help support improved workforce planning in the future. This could also usefully inform any national drive to improve retention across the NHS nursing workforce. Related to this, there is a case for implementing a consistent method of data collection on retention across all Trusts. The second area which needs close monitoring is the number of student nurses, following the government decision to remove the student nurse bursary. Finally, given the importance of region and demography in influencing Trusts' use of non-EEA (and EEA) nurses, more evidence is needed to pin down the issues at play in London and the South East. Our research has already contributed to this last area, not least by developing a geographical catchment area for each Trust, allowing us to produce one-dimensional maps of non-EU nurses by NHS Trust³. However, more work is needed to understand the interplay of 'push' and 'pull' factors in these regions and why they result in higher vacancy rates and greater turnover than in other regions.

1 Marangozov R, Williams M, Buchan J (2016), *The labour market for nurses in the UK and its relationship to the demand for, and supply of, international nurses in the NHS*, Migration Advisory Committee

2 The Mid Staffordshire NHS Foundation Trust (2013), *Report of the Mid Staffordshire NHS Foundation Trust Public Enquiry*, The Stationery Office

3 Marangozov R, Williams M (2016), 'How will Brexit affect the NHS? The English trusts that depend most on EU nurses', LSE [Online]. Available at: <http://blogs.lse.ac.uk/brexit/2016/07/29/how-will-brexit-affect-the-nhs-the-english-trusts-that-depend-most-on-eu-nurses> [Accessed: 19 August 2016]



IES Brexit Observatory

The UK's decision to leave the EU has raised many questions and concerns for employees, employers and policy-makers about the impact of Brexit on working life and the economy.

IES has launched an online Brexit Observatory as a space to collate questions, share relevant research, track datasets and link to sources of independent information.

Visit www.employment-studies.co.uk/brexit-observatory

Assessing risk of precariousness in work

Andrea Broughton, IES Principal Research Fellow



Precarious work is an issue that is occupying the minds of policymakers both in the UK and more widely in the European Union. At the heart of the debate is the question of how to ensure the appropriate balance between flexibility and protecting the employment rights and terms and conditions of workers. IES explored these issues in recent research carried out for the European Parliament¹, finding a complex interplay of factors, such as type of employment relationship, individual situation and preferences, and issues such as sector, age, educational level, and gender.

Our approach

There is no Europe-wide accepted definition of what constitutes precarious work, as this depends on factors such as the viewpoint of the assessor (trade unions will have a different view than employer representatives, for example) and the situation of the individual worker – for example, a relatively high degree of flexibility and insecurity may be welcomed by those who are fitting work into other lifestyle choices or demands, whereas this would not be

sustainable for those who need a higher level of security.

Consequently, the approach we took was to assess the risk of precariousness of all types of contract. We therefore looked at 'standard' open-ended, full-time contracts; part-time work; self-employment; temporary work (including fixed-term contracts; temporary agency work; seasonal and casual work; posted work; and outsourced or subcontracted work); zero hours contracts; internships;

and informal or undeclared work. We then mapped these against indicators in order to assess the risk of precariousness for individuals. These indicators are in-work poverty and low pay, social security, labour rights, stress and health, career development and training, and low levels of collective rights.

Key drivers

We found that the financial crisis has had an impact on risk of precariousness

in Europe, resulting in an increase in a range of atypical forms of work. The crisis has also meant that lower levels of funds have been available for enforcement services in Member States, increasing the possibility of abuses of employment relations going undetected. Other drivers include a country's institutional framework, including the presence or absence of a statutory national minimum wage, the extent and influence of active labour market policies, the interaction of tax and social security systems with low pay, and the presence or absence of collective bargaining systems. Labour market regulation is also a key factor that affects risk of precariousness: labour markets that afford protection to workers in the areas of working conditions; protection against discrimination and dismissal; access to social rights; and to collective rights are likely to have a lower overall risk of precariousness than those which do not.

Risks of precariousness varies according to type of contract

We found that the predominant form of employment relationship in the EU is the full-time permanent contract, which accounts for 59 per cent of employment, although this share is decreasing, while the share of non-standard forms of work is increasing. We found that while standard forms of employment are at a lower risk of precariousness than other forms of contracts, there are nevertheless some risks, associated with low pay, in-work poverty, and poor working conditions in some sectors and occupations.

Part-time work accounts for around seven per cent of employment in the EU. Marginal part-time work (fewer than 20 hours per week) is increasing, mainly due to rising participation of women in the labour market.

The overall working conditions of permanent part-time employees seem not to be that different from those of full-time workers, but marginal part-time employment is characterised by a lower level of job security, fewer career opportunities, lower levels of training investment and a higher share of low pay. On average, around a quarter of part-time workers do so involuntarily.

The share of self-employed people without employees is slightly above 10 per cent, while self-employed people with at least one employee account for four per cent of total employment.

Self-employed people perceive their job security to be positive but investment in training to be below average. However, 'bogus' self-employment carries a high risk of precariousness, largely in terms of lack of access to employment rights and to social security benefits.

Fixed-term contracts account for seven per cent of total employment. We found that fixed-term work is at risk of a lack of access to employment rights as the majority of workers' rights and protections in the EU have been built around standard contracts. There is also a mixed picture in terms of how far fixed-term work can provide a stepping-stone into more permanent forms of employment.

Temporary agency work accounts for 1.5 per cent of total employment on average. There is a risk of precariousness in terms of lower earnings levels. However, there is some evidence that temporary agency work can potentially act as the first step into the labour market and on to permanent work.

Zero-hours contracts are not present in all countries, but account for around five per cent of the workforce in the UK and Austria. These contracts have no guaranteed minimum hours of work and although contracts usually stipulate that workers are entitled to decline work, in practice individuals often feel pressured to accept work. Variability of earnings under zero-hours contracts affects an individual's ability to claim social security benefits.

Internships are often unpaid and even where they are, payment is typically low. There are also risks in terms of the quality of the placements and the danger of young people getting trapped in lengthy cycles of unpaid internships. Internships are increasingly becoming an important route of entry to many professions; however, opportunities are often secured using personal contacts or networking, which creates major disadvantages for those who do not have access to these points of entry.

Conclusions

Our study found that all employment relationships are at some risk of precariousness although the level of risk varies. We found that the risk of in-work poverty, lack of social security coverage and lack of access to labour rights are the most serious risks for individuals.

Standard forms of work are at a lower risk of precariousness, but are associated with some risks in terms of low pay, in-work poverty, and poor working conditions in some sectors and occupations. Overall, part-time work tends to be less precarious than marginal part-time. Self-employment is characterised by certain risks, but an important distinction to make is between those who choose self-employment and 'bogus' self-employed workers. Temporary forms of work are traditionally seen as at greater risk of precariousness, largely due to their time-limited nature. Other forms of work, such as zero hours contracts, internships and undeclared and informal work, all carry relatively high risks of precariousness.

The EU has a strong framework of Directives and other policy initiatives that are designed to offer protection to workers who are at risk of precariousness, and this has been assessed to be effective overall. However, a number of challenges remain for EU policy:

- ensuring the right approach to the regulation of temporary and permanent contracts;
- curbing undeclared work and 'bogus' self-employment, particularly in sectors that are experiencing severe competition on grounds of cost;
- finding a balance between flexibility and security, in order to ensure that labour markets and employers can respond flexibly to shifts in demand and circumstances; and
- finding a balance between freedom of movement, freedom to provide services, and protection of workers, to ensure that businesses can respond flexibly to circumstances, while providing workers with adequate employment protection.

¹ Broughton A, Green M, Rickard R, Swift S, Eichhorst W, Tobsch V, Magda I, Lewandowski P, Keister R, Jonaviciene D, Ramos Martin N E, Valsamis D, Tros F (2016), *Precarious Employment in Europe: Patterns, Trends and Policy Strategies*, European Parliament

² Broughton A, Green M, Rickard R, Swift S, Eichhorst W, Tobsch V, Magda I, Lewandowski P, Keister R, Jonaviciene D, Ramos Martin N E, Valsamis D, Tros F (2016), *Precarious Employment in Europe: Country Case Studies*, European Parliament

Will the Youth Obligation work for disadvantaged young people?

Jonathan Buzzeo, IES Research Fellow

Last summer, the government announced plans to introduce the Youth Obligation for all young jobseekers to prepare them for entry into work or training after six months. Two recently published pieces of IES research shed light on the perceived impact that this policy will have, including among those who are ‘hardest to reach’.



The Youth Obligation for claimants aged 18-21 receiving Universal Credit was announced in the 2015 Summer Budget. It is due to be rolled out nationally from April 2017, and will require all young jobseekers to attend a three-week intensive ‘boot camp’ from day one of their claim. It aims to provide this group with the high-quality job-search skills necessary to move quickly into work or training. The boot camp itself will comprise a series of structured activities, including workshops, tasks to be completed at home and individual feedback sessions. They will be delivered in such a way so as to encourage claimants to assess their job-search skills and reflect on how these can be improved, taking on board advice and tips as well as examples of good practice.

The policy also includes a mandatory



requirement for young jobseekers, should they still be claiming after six months, to apply for an apprenticeship or traineeship, gain work-based skills, or undertake a mandatory work placement. Again, the intention is to provide claimants with the skills and experience necessary to move into sustainable employment opportunities.

Positive effects of the ‘boot camp’

The three-week intensive ‘boot camp’, or Intensive Activity Programme (IAP) as it is known formally within DWP, was trialled in parts of Yorkshire early in 2015 to assess its impact. IES evaluated the claimant experience and the results of this study were recently published¹. The trial was open to all – regardless of age, education or level of labour market experience. Our findings showed that it was particularly

beneficial for younger claimants (ie those aged 18-24). While a varied range of experiences were reported, when informed about the trial, this group tended to express more open attitudes towards the programme and to learning new job-search skills than older claimants. They also more commonly identified techniques and approaches discussed during the group workshop, which were completely new to them, and felt more confident in applying these skills in their future job-search.

IES explores implications for the most disadvantaged

In spite of these positive outcomes, commentators have raised concerns about how suitable this and other elements of the Youth Obligation will be for vulnerable young people, such as those who have experienced



UK Briefings

Evaluation of the NHS Innovation Accelerator Programme

IES is undertaking an evaluation in partnership with York Health Economics Consortium and the University of Liverpool into the NHS's Innovation Accelerator Programme. The programme aims to encourage proven innovations to be adopted faster and more systematically across the NHS. The evaluation will use a mixed methods approach to provide evidence on what works in scaling and speeding the pace of innovations across health care organisations. It will be combined with an impact evaluation to provide evidence on how the programme benefits organisations, NHS patients and the wider healthcare community.

IES contact: Annette Cox

Smart Industrial Relations – Smart production in the manufacturing industry and work organisation: new scenarios for industrial relations

IES is participating in a European Commission-funded project examining 'smart industrial relations', consisting of new modes of production (smart production), and processes of change (anticipation, preparation and management). The aim is to help develop capacity building for the social partners.

The project focuses on Portugal, Bulgaria, Poland, Spain, UK and Italy. IES will carry out desk research relating to the UK and participate in three workshops, to be held in Lisbon, Warsaw and Sofia.

IES contact: Andrea Broughton

'Prevent in Further Education' data analysis

IES supported the Department for Business Innovation and Skills' (BIS) team of contracted further education advisors in identifying organisations where they should be monitoring compliance with their duties under the government's Prevent strategy. The strategy aims to prevent the threat of home-grown terrorism in the UK. IES' work involved building a database of training organisations that were delivering further education whilst operating outside the scope of Ofsted.

IES contact: Stefan Speckesser

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homelessness. The barriers that these groups face in terms of finding a route into employment are complex, interacting and varied. They go beyond difficulties in looking for and applying for work, and include broader issues such as: low levels of confidence, self-esteem, and personal motivation; mental health and substance misuse problems; lack of independent living skills; and cultural and financial barriers to travelling. Previous research has shown how homeless young people find it difficult to meet the terms of their benefit claim, and are disproportionately affected by benefit sanctions compared to the wider claimant population¹.

With these issues in mind, the youth homelessness charity Centrepoint commissioned IES to seek the views of vulnerable young people, as well as training providers and charitable organisations who work with them, to further explore the possible implications of the Youth Obligation for the most disadvantaged.

Our findings showed that some interviewees were welcoming of the three-week intensive boot-camp. Vulnerable young people quite often require support to improve their job-search skills, such as help in putting together a CV or covering letter. However, respondents were keen to point out that the activities that young claimants are required to undertake should not be too challenging and risk knocking their self-confidence any further. They also felt that this set of activities should not be delivered in isolation, given the array of support needs disadvantaged groups present. These young people will also need access to mentoring and emotional support in order to make progress. This could be facilitated by Jobcentre Plus through an early and thorough assessment of claimants' needs, making referrals to specialist support services where needed.

Further issues to address

Reservations were also expressed about the Youth Obligation's mandatory requirement that young jobseekers apply for a training opportunity or work placement after six months of claiming. The young people we spoke to, who had experience of unemployment and / or were living in supported accommodation, consistently stressed that they would only be

encouraged to engage in a training opportunity or work placement if it was linked to their career aspirations, or if it did not present other barriers such as being too far to travel or not providing sufficient pay. If Jobcentre Plus were unable to provide access to high-quality opportunities they could see value in, many felt that they would simply disengage and stop claiming benefit. This would risk damaging their life chances still further, with a high cost to wider society and the public purse¹.

Charitable organisations and training providers with experience of supporting vulnerable groups meanwhile highlighted how this six-month period would not be long enough for some of their clients to prepare for such a major transition. They felt that those who had multiple, complex difficulties relating to entering the labour market should be given more time to address these barriers. Otherwise, this policy would be setting up some young people to fail.

We now know that oversight of funding to deliver interventions as part of the Youth Obligation will be given to county council areas where local devolution agreements are in place. While most of the population in England are yet to be covered by these agreements, the involvement of local combined authorities in the delivery of the initiative presents an opportunity to address the wider needs of disadvantaged groups taking part. Namely, by providing a greater degree of direct access to local authority services and making substantive use of these to address any additional barriers to employment. However, unless mandatory aspects of the Youth Obligation are implemented with a degree of flexibility – with vulnerable groups being given additional time to make progress, and an element of choice in which course or placement they undertake – then our research suggests that this policy will not best support, and may risk further alienating, the hardest to reach.

- 1 Buzzeo J, Marvell R, Everett C, Newton B (2016), *Tackling unemployment among disadvantaged young people*, Centrepoint
- 2 Homeless Link (2013), *A high cost to pay: The impact of benefit sanctions on homeless people*, Homeless Link
- 3 Coles B, Godfrey C, Keung A, Parrott S, Bradshaw J (2010), *Estimating the Life-time Cost of NEET: 16-18 Year Olds Not in Employment, Education or Training*, University of York

The benefits of cycling to work

Sam Swift, IES Research Officer



IES was commissioned by Westminster Advisers, on behalf of the Cycle to Work Alliance, to assess the benefit of the Cycle to Work scheme for employers and society as a whole. Our research found significant effects on improving health, and quantified these econometrically to highlight the gains to be made from encouraging cycling uptake.

The study¹ focused on the Cycle to Work Scheme – a tax-free, salary sacrifice benefit under which employees can hire bicycles and cycling equipment – the benefits of this on the health of its participants, and the knock-on effect in terms of economic benefits for employers. IES undertook a wide-ranging literature review around cycling schemes and the benefits of cycling in general, and combined this with survey analysis. The analysis considered whether the Cycle to Work scheme had increased the number of people cycling, and whether people were cycling further or a greater proportion of journeys.

Effects of the scheme

With regards to cycling uptake, there is mixed evidence as to whether or not the scheme has had a significant positive uptake on cycling itself. National data does not suggest a rise in the proportion of the population cycling to work, which has remained steady at around 2.8 per cent since 2001. There was regional variation to this; the proportion in London increased from 2.3 per cent to 3.9 per cent, and substantial increases were also observed in other cities, including Oxford, Cambridge, Bristol, Exeter, and Brighton and Hove. This data, however, may not pick up more recent trends. Indeed, survey analysis of those who have taken part in the Cycle to Work scheme found that 62 per cent of those who participated were non- or novice cyclists, suggesting that the scheme is attracting new cyclists rather than merely those who would cycle to work anyway.

A more positive effect relates to the increase in the distance or time spent cycling. A total of nine per cent of respondents were non-cyclists who had started cycling to work, and 57 per cent were cyclists who had increased their cycling intensity as a result of the scheme. Further calculation suggests that the impact equates to roughly an extra 3.6 miles cycled per cyclist per

day, or roughly 30 minutes of extra activity per day. This analysis builds on work from Yorkshire², Ireland³, and Belgium⁴, consolidating the key benefits of offering a Cycle to Work scheme.

What does this mean?

IES went on to calculate both the health benefits and the subsequent economic benefits of this uptake. Existing literature has highlighted the benefits of increased cardiovascular activity, including reductions in risk and incidence of type 2 diabetes, heart disease, and certain cancers. In addition, the survey analysis found that 86 per cent of respondents felt that they had experienced a health benefit from cycling. This was mainly increased fitness, but some respondents also noted weight loss, reduced stress, and improvements to asthma-related conditions. Given that lack of physical activity is marked as the cause of 16.9 per cent of premature deaths in the UK⁵, this could have wide-reaching and positive ramifications in public health on the basis of reasonably low investment.

It is also possible to quantify the potential economic benefits of the scheme based on the costs to employers of employee ill health. Much of the literature comes to varying conclusions on the macroeconomic benefits of investing in cycling, with cost/benefit ratios varying from 2:1 to as high as 19:1⁶. IES built on this by altering the scale, providing a novel assessment of the overall impact to employers and the economy that the Cycle to Work scheme has had in its current form.

The overall impact, based on the calculation that regular cyclists take on average one fewer sick day a year⁷ and exhibit reduced mortality rates, is roughly £72 million per year. This is based on the average cost of a sick day of £133.56 to an employer, at current average wages, and a modest impact of 9,200 (5% of total) participants increasing activity by 30 minutes

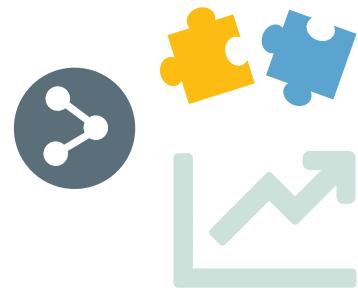
per day. This is, to our knowledge, the first time that such a figure has been calculated around the scheme in practice, and shows a significant economic and social benefit to investing in cycling.

Future actions

Our research shows the tangible benefits of investing in the Cycle to Work scheme, with a modest calculation of £72 million worth of economic and social benefits per year as being indicative of the scheme's worth, as it also represents a cost/benefit ratio of around 2:1. It also does not consider potential environmental benefits, nor the impact of an increase in occasional cyclists increasing their activity, meaning that the long-term impact could be greater. In an age of tight public finances, investment in schemes such as this could be very cost-effective. The message is clear that the scheme is a positive and successful one, and that expansion and greater investment could be greatly beneficial to employers and employees, as well as society as a whole.

- 1 Swift S, Green M, Hillage J, Nafilyan V (2016), *Impact of the Cycle to Work Scheme – Evidence Report*, Report 509, Institute for Employment Studies
- 2 Clarke A, Shires J, Laird J (2014), *Cycle to Work scheme – weekend warriors or daily commuters?*, Institute for Transport, University of Leeds
- 3 Caulfield B, Leahy J (2011), 'Learning to cycle again: examining the benefits of providing tax-free loans to purchase new bicycles', *Research in Transportation Business & Management*, Vol. 2, pp.42–47
- 4 Vanoutrive T, Van Malderen L, Jourquin B, Thomas I, Verhetsel A, Witlox F (2009), "Let the business cycle!" A spatial multilevel analysis of cycling to work', *Belgeo*, Vol. 2, pp.217–232
- 5 Lee I M, Shiroma E J, Lobelo F, Puska P, Blair S N, Katzmarzyk P T, Lancet Physical Activity Series Working Group (2012), 'Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy', *The Lancet*, 380(9838), pp.219–229
- 6 Davis A (2010), *Value for Money: An Economic Assessment of Investment in Walking and Cycling*, Department of Health
- 7 Hendriksen I J, Simons M, Garre F G and Hildebrandt V H (2010), 'The association between commuter cycling and sickness absence', *Preventive medicine*, Vol. 5, No. 2, pp.132–135

Improving young people's employability



Rosa Marvell, IES Research Fellow

Recent work by IES, commissioned by STEMNET¹ and funded by the Department of Business, Innovation and Skills, has highlighted the positive effect² of STEMNET's programmes on young people's employability skills³. This provides an opportunity to consider 'what works' in preparing pupils for effective labour market and educational transitions.

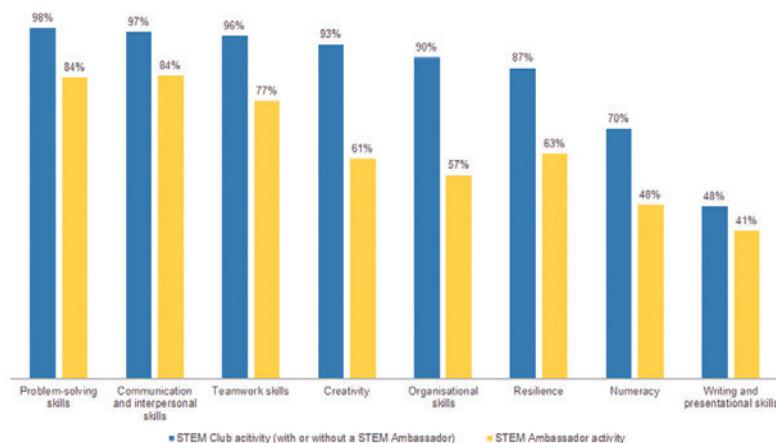
Focusing on employability skills for young people is critical. These skills are important not only in enabling young people to enter and succeed in employment, but also in terms of transitions to Further and Higher Education. However, their development is complex; employability is not simply about possessing a range of transferable skills and personal attributes. People can develop skills without recognising them, may not understand their relevance to employment or feel unsure about how to present these capabilities to others. This disconnect is particularly relevant for young people with no labour market exposure.

Our research⁴ considered two programmes: STEM Ambassador and STEM Club activities. STEM Ambassadors are professionals who use STEM skills in their work, volunteering to support the young people's STEM education. Activities include one-off talks, curricular and extracurricular support or workplace visits. STEM Clubs are extra-curricular sessions where pupils explore elements of STEM through engaging topics and formats such as practical experiments, investigations or competitions.

The impact of STEMNET's programmes

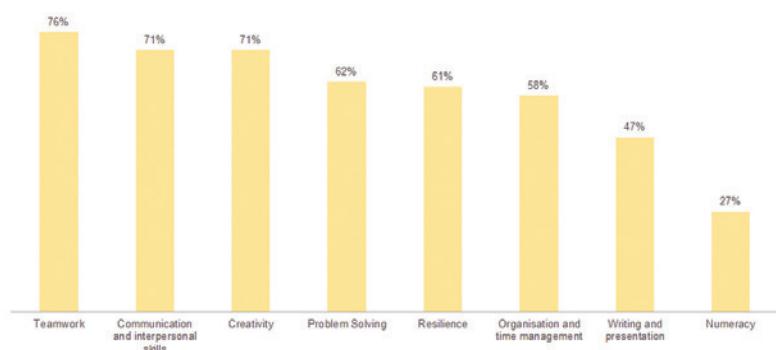
Surveyed teachers and pupils clearly agreed that STEM Ambassador and STEM Club activities improve young people's employability skills and, to a somewhat lesser degree, employability attributes (see Figure 1 and Figure 2). Of particular note are prominent benefits around teamwork, problem-solving, communication and creativity and the particularly positive picture surrounding STEM Clubs, which are more practical and hands-on.

Figure 1: Proportion of teachers who agreed that STEMNET's programmes develop young people's employability skills



Source: Teacher survey, IES 2015.

Figure 2: Proportion of pupils who reported their employability skills had improved 'a lot' or 'quite a bit' from STEM Club and STEM Ambassador activities



Source: Pupil survey, IES 2015

Positive impacts were not restricted to STEM sessions. Interviewed teachers identified wider behavioural changes, where previously shy or adrift students became more ‘inquisitive’, ‘curious’, ‘engaged’ and ‘articulate’ in the classroom.

Discussions about employability attributes (eg personal qualities) were less frequent; some pupils felt these were more obscure than skills such as teamwork or problem-solving, although there were some exceptions. Pupils believed they valued diversity and difference more, whilst teachers (especially those in more disadvantaged schools) identified improvements in resilience and confidence.

Despite these gains, surveyed teachers felt pupils may not be able to identify the full extent of their new capabilities. Reflective activity was a key mechanism to improve this, although teachers emphasised the time pressures they were under and how this curtailed their engagement levels.

Activities involving STEM Ambassadors exerted a particularly positive effect on developing an understanding of the world of work. Surveyed teachers reported that meeting industry professionals linked the curriculum to real work applications (92%), improved awareness of diverse STEM careers (87%) and improved understandings of the realities of a work environment (69%). Formal, substantive events (eg careers fairs / workplace visits) had notably positive effects for pupils. However, informal conversations were also valuable channels which demystified occupational trajectories and higher, further or vocational education options.

However, there were fewer examples of students evidencing their employability skills. Likewise, most pupils surveyed felt ‘somewhat’ confident they would be able to do so. Despite limited findings, national certifications and presentations were seen as particularly effective opportunities for students to articulate their learning journey.

How do STEMNET’s programmes achieve an impact?

For practitioners and policy-makers hoping to better prepare young people for post-secondary transitions and imbue them with a suite of ‘soft’ skills, the possible reasons behind these positive benefits provide a useful starting point:

- Many pupils already had an underlying interest in the topic matter, and activities were often organised such that students opt in or are selected due to their existing interest. Capitalising on this existing interest maximises the learning that students can take from the activity.
- STEM Ambassadors themselves felt it was important that pupils had a degree of choice, as engagement could be dampened where students were required to attend.
- Group sizes were often – but not always – small, which allowed pupils to receive more attention and development opportunities, although this could place significant limitations on the reach of a particular activity.
- Teachers often described their facilitation style as ‘hands-off’, which can let pupils take ownership of activities and follow them from start to finish.
- Competitions are said to be greatly motivating and can help to keep the momentum behind an activity – particularly so when this is related to national or international competitions as they can be championed in school. Pupils themselves explained that elements of real competition convince them to expend greater time and energy.
- STEM Ambassadors emphasised the need to avoid formulaic activities or others too similar to a ‘traditional’ academic programme of study and to choose activities which are practical, creative and hands-on.
- Ongoing projects lasting from several weeks to the duration of the academic year promote continuous reflection and learning. Teachers and stakeholders alike believed the impact on employability skills is one that gradually accrues; they therefore valued activities which required continuous and sustained engagement.
- Following up learning – even in very informal ways – can help to cement learning and make outcomes clearer and more explicit.

What challenges remain?

Despite emergent positive findings which have been clearly recognised by teaching staff, industry professionals and learners, a number of challenges remain for those delivering STEMNET’s

programmes ‘on the ground’. These include:

1. **Time:** For teaching staff, delivering these activities (particular external visits) and finding time within that to focus on employability skills can be under strain from broader pressures of curriculum delivery and raising attainment.
2. **Lack of peer support:** Some teachers felt they were a solitary voice pushing activity forward, and there was a risk to sustainability of activities if these ‘champions’ moved on.
3. **Student behaviours or beliefs:** STEM Ambassadors and young people felt that a few pupils with low self-esteem or confidence could behave badly, have low attendance or disengage from tasks (especially in challenging moments), limiting the benefits they could derive. Contrastingly, some teachers felt students could be instrumental and view the activity as something to put on a CV or personal statement, rather than an opportunity for wider development.

Conclusions

Our findings indicate there is real strength in the diversity of STEMNET’s programmes. Longer-term STEM Clubs, projects and competitions build a whole suite of employability skills whilst one-off activities can increase insights into the world of work. STEM Ambassador activities are particularly valued for the ways in which they raise awareness about the world of work, career pathways and real day-to-day lives at work. As this research shows, there is real value in allowing pupils the opportunity to explore future careers in applied settings.

1 The Science, Technology, Engineering and Mathematics Network <http://www.stemnet.org.uk/>

2 It must be noted that this research captures information on perceived rather than demonstrable impacts, since the method did not involve any counterfactual assessment. Despite this, the findings provide a detailed insight into the benefits perceived by a range of important stakeholders who have significant experience of involvement.

3 Primarily in Key Stage 3 and 4

4 Marvell R, Newton B (2016), *The impact of STEM programmes on young people’s employability skills*, STEMNET

The Blue Light programme: Support for emergency services



Kate Spiegelhalter, IES Research Officer



Emergency workers are less likely than other workers to seek out or receive good mental health support, or to take time off work if they have a mental health problem. More than half are not aware of any mental health support offered by their employer, and 71 per cent think that their organisation does not encourage them to talk about their mental health – a much more negative result than for the wider workforce¹. Mind was awarded £4 million of Government funding to develop the Blue Light programme, which was launched in March 2015 with the aim of addressing the issues above via a number of different mechanisms.

This article presents the findings of IES's evaluation of the 'Workplace Wellbeing' training interventions, which constituted Strand 2 of the Blue Light programme². Strand 2 consisted of two types of training intervention: a package of webinars tailored to professionals working in the four services and face-to-

face training sessions for line managers. IES adopted a mixed-methods approach to the evaluation, comprising a number of paper and web-based surveys, in-depth qualitative interviews, and case studies. The aim was to represent views and experiences in relation to the webinar and the face-to-face training across all Blue Light services.

Content of the training and webinars

The bespoke half-day face-to-face training for line managers was delivered by 20 local Mind branches, and offered guidance on how to manage staff who may be dealing with mental health issues and how to support their recovery, including initiating potentially difficult conversations with people finding it hard to cope. The training also signposted specialist sources of support for situations requiring expert clinical input, and how to promote wellbeing within a team. More than 5,000 managers participated in this training.

The webinars were a series of short online films specifically designed for emergency services staff and volunteers, and were available on the Mind website. They were aimed at educating and informing Blue Light professionals about the nature of mental health conditions and how they can develop, addressing common myths and misapprehensions. Information was also provided to help individuals develop better self-care techniques and enable them to recognise warning signs in colleagues who may be struggling. 364 people viewed the webinars, with a good spread across the four services.

Increase in understanding of mental health problems

The results of this evaluation suggested that line managers' self-reported understanding of mental health problems and relevant work factors improved significantly as a consequence of the face-to-face training. There was

also evidence of important attitudinal changes and self-confidence to support others as well as their own mental health, with particular confidence around starting a conversation with people who may be showing signs and symptoms of a mental health problem, and an understanding of the elements of their own service's work that put people's mental health at risk. Follow-up survey findings indicated that this learning was sustained over subsequent months.

Low webinar viewing figures

By contrast, viewing numbers for the webinars were disappointing. Findings suggest that access to the webinars was hindered by IT access issues, apparently often resulting from employees not having authorisation to download the correct software. The low number of responses to the webinar surveys meant that no reliable conclusions could be drawn regarding their impact. However, the inclusion of Blue Light professionals' own stories in the webinars were felt to bring issues to life and underline the importance of taking action to support affected workers. There was a strong feeling that the webinars would be beneficial to colleagues who had not seen them, particularly those with relatively low levels of awareness of mental health issues. Other evidence however suggested that the webinars appeared to be useful as 'refreshers' for those with pre-existing knowledge; this finding possibly arises from the fact that many research participants who watched the webinars appeared to have relatively advanced existing knowledge about the management of mental health issues. For this population, they appeared to be successful as a good reference source complementary to other Blue Light support. Overall there was appreciation of the bespoke approach that had been taken to ensure a 'fit' with each of the four Blue Light services and this was viewed as a very important aspect of the programme.

Stress rarely has a singular cause

It was clear from the evaluation that both job-specific and personal circumstances need to be taken into account when understanding pressures on individuals at work. This highlights the importance of employers providing a flexible and supportive working environment. Further, while it can be helpful to 'compartmentalise' domestic and

work stresses from the perspective of specialist agencies who fund initiatives and pilots, researchers and practitioners need to keep the bigger picture in mind and remember that stress rarely has a singular cause. Organisational context is also an important factor in determining attendance at face-to-face training sessions and the impact of new learning. The easier an organisation makes it to 'opt-out' of training, the more likely it will be that those who are arguably most in need of it will not attend. This is an important consideration when promoting training and working with organisations to encourage uptake.

The way forward

Even with sufficient consideration of IT-related access issues, it is clear that web-based materials need to be tailored to meet the working patterns of Blue Light staff. On the basis of this evaluation, this could mean making the webinars shorter, providing an overview of contents at the beginning, segmenting them into sections that can be viewed separately, and making registration faster or dispensing with it all together.

In considering these findings, the potentially confounding 'background' effect of the Blue Light Programme as a whole should also be considered, as other strands may have contributed to these positive changes. In tackling stigma, it is clear that the Blue Light Programme can have significant benefits for both the individuals who are exposed to it, the personnel they manage, and the public they serve. However, effecting cultural change on a larger scale may be a longer process. Mind has pledged to take the findings of the evaluation forward in 2016 and 2017, including redeveloping the training course³. Efforts to raise the profile of mental health will need to be sustained, and supported by organisational investment as well as visible endorsement by senior management, if scepticism is to be overcome and attitudes are to be shifted across the Blue Light workforce as a whole.

- 1 Mind (2016), *Our Blue Light – Mental health support for our emergency services staff and volunteers – one year on*, Mind
- 2 Wilson S, Sinclair A, Huxley A, Spiegelhalter K (2016), *Evaluation of Mind's Blue Light Programme: Strand 2: Workplace Wellbeing*, Mind
- 3 Mind (2016), *Blue Light Programme Research Summary*, Mind



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UK employment and Brexit: the issues

In the first issue of Employment Studies since the UK referendum on leaving the EU, it is inevitable that we should focus this viewpoint article on Brexit and its likely implications. Thus far, however, we know very little either about the shape of Brexit itself, and the terms which will be negotiated for the UK's relationship with the EU, or about what all that will mean for employers and the workforce in the UK.

At the time of writing, little hard evidence has emerged: indeed, for the most part, the official labour market statistics¹ have continued to be very positive, with falling unemployment and an employment rate at record levels. So far, however, the statistics mainly cover the period up to the Brexit vote itself, and things may change towards the end of 2016. While less robust than official statistics, there are already signs from some of the surveys conducted by employer bodies and associations² of employers cutting back on recruitment activity, and even the official statistics show a recent turnaround in the previously strongly growing trend in unfilled vacancies (consistent with a cautious approach to hiring in the months before the vote).

IES does, however, plan to contribute to the discussion on this topic through our new 'Brexit Observatory'³ which will become a repository of key data, research findings and informed commentary on the employment implications of Brexit as they emerge. In line with IES's mission to inform the decisions of both public employment policy-makers and employers, the Observatory will look both at the 'macro' level impact of Brexit on the labour market, and the 'micro' level impact on the policies and human resource practices of employers.

Where should we expect to look for impact? Clearly many potential impacts of Brexit will take time to feed through to the labour market, and it won't always be straightforward to disentangle their aggregate employment effects from the effects of other non-Brexit related movements in the global and national economy.

At a more detailed level, much will depend on factors such as changing migration patterns, both those that are driven by individual decision-making following Brexit and those driven by changes in the rules governing migration for different groups as the process of leaving the EU unfolds. Much previous evidence⁴ suggests that

on balance the UK economy and labour market have benefited from increased migration levels, and it is tempting to conclude from this that Brexit-induced changes to migration patterns will therefore be detrimental. What's more, there are obvious immediate concerns for sectors heavily reliant on migrant workers (as IES's own work in the health sector highlights⁵). A lot, however, will depend on the skill mix of the sectors in question and the ease with which migrants can be replaced from the domestic workforce. Key unknowns relate to how (and how effectively) migration can be managed in the future – any points-based system for EU workers would, in effect, extend to all immigration the kind of managed approach we currently have for non-EU workers. Under such an approach, migration flows will be managed according to economic and labour market criteria determined by experts and bureaucrats. The effective functioning of such a system depends a lot on how sensitive and flexible to labour market circumstances the criteria (for allocating points, or otherwise managing migration) are, compared with the alternative of free movement and letting the labour market function as a market. It is easy to imagine that the bureaucracy will struggle to be sufficiently well-informed to avoid mismatch on the labour market, leading to skill shortages and unfilled vacancies.

Second, if skill mismatches are generated or exacerbated, much will depend on how the labour market adjusts, and what decisions employers and training providers make in response. Some commentators assume that the labour market will adjust quickly and effectively, either because employers will take steps to upskill the domestic workforce and / or pay higher wages in shortage occupations / sectors, or because government will provide appropriate incentives. The alternative scenario, of course, is that the capital market rather than the labour market will adjust – and businesses will increasingly see the UK as a lower-

skill, lower-wage environment and take investment decisions accordingly (either by relocating high-skill activities outside the UK, or keeping the activities here but adopting lower-skill technologies to deliver them). Under that model, the long-established UK policy problem of a 'low skill equilibrium'⁶ would be exacerbated and the economy set on a lower-skill, lower-productivity, lower-wages trajectory than it would otherwise have been. This is without considering other possible Brexit-induced reasons for relocation of investment (eg in order to keep business activities inside the EU to avoid tariff or regulatory barriers).

Currently the consensus among labour economists⁷ seems to be that labour market impacts of Brexit and changed migration patterns are most likely to be seen at the top and bottom ends of the skill distribution in the UK, and there is little evidence that these changes will improve prospects for UK-born workers. This will, however, be a key area to be monitored through IES's Brexit Observatory (see page 2).

1 Meager N (2016), 'Brexit and employment statistics: nothing to see here... (yet)', *Institute for Employment Studies* [Online]. Available at: <http://www.employment-studies.co.uk/news/brexit-and-employment-statistics-nothing-see-here-yet> [Accessed: 19 August 2016]

2 CIPD (2016), 'Labour Market Outlook', *CIPD* [Online]. Available at: <http://cipd.co.uk/research/labour-market-outlook.aspx> [Accessed: 19 August 2016]

3 Institute for Employment Studies, 'IES Brexit Observatory', *Institute for Employment Studies* [Online]. Available at: <http://employment-studies.co.uk/brexit-observatory>

4 See also our earlier Viewpoint on migration statistics: Meager N (2012), 'IES Viewpoint: Lies, damned lies and migration statistics', *Employment Studies* 15, *Institute for Employment Studies*. Also available at: <http://www.employment-studies.co.uk/news/ies-viewpoint-lies-damned-lies-and-migration-statistics>

5 See Manzoni C, 'NHS nurses: filling the recruitment gap', in this issue.

6 For a succinct explanation of this concept, see OECD (2014), *Job Creation and Local Government*, Ch 4. 'Escaping the low skills equilibrium trap', OECD

7 See for example Petrongolo B (2016), 'Brexit and the UK Labour Market', in Baldwin R, *Brexit Beckons: Thinking ahead by leading economists*, VoxEU.