Responding to Brexit:

Impacts and policy solutions

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what works centre for
local economic growth

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Responding to Brexit

LSE's Knowledge Exchange and Impact fund gave the What Works Centre for Local Economic Growth a grant to work with ten places interested in understanding the impact of Brexit and thinking about policy responses. During 2017 we worked together with colleagues from Birmingham, West of England LEP, Cambridge, Enterprise M3 LEP, Hull, Leeds, North East LEP, Peterborough, Preston, and Sheffield to do just that. We explored the potential impact on their local economies, what they are planning to do in response and helped them think about how they might prepare and respond better.

Our initial work started by profiling the different areas – how reliant they were on trade with the EU, where their Foreign Direct Investment (FDI) came from, what kind of EU workers lived and worked locally. In initial meetings we provided the ten cities with analysis of what the data looked like for each of them, and asked for their reflections about how they expected to be able to respond, including candid discussions about:

- which expected changes and adjustments would be most consequential given the labour market and industrial base of each place;
- how to monitor changes to the local economy to ensure a timely response;
- what resources they could realistically use to mitigate the negative impacts of Brexit, and take advantage of opportunities it offers.

These initial sessions were a great starting point. One clear lesson that emerged early on was that, although individual places were having these discussions locally there was great value in bringing together a range of diverse places and experiences to encourage peer review learning across areas. This is something the What Works Centre would be keen to support in the future.

A second lesson that emerged from these discussions is that while much has been written about the impact that Brexit might have on the national economy, we know far less about how that impact might vary across the UK. The local areas we were working with were keen to know what might be instore for them. To respond to this, we worked with colleagues at the Centre for Economic Performance (Swati Dhingra and Steve Machin) and the Centre for Cities (Naomi Clayton) to take a first look at the

local economic impacts of Brexit. A briefing is freely available on the Centre for Cities website, at: http://www.centreforcities.org/publication/brexit-trade-economic-impacts-uk-cities/.

More work needs to be done, but those reports now provide a starting point for different areas in thinking about how Brexit might affect their local economy. If you are one of the places that worked with us, then we will have provided you with a version of this report that provides a brief summary of the results for your area in an annex.

Our group discussions about those predicted impacts highlighted how useful they could be, particularly as a supplement to detailed local knowledge about particular sectors - be it high tech in Cambridge, or manufacturing in Hull. As with our discussion of the facts and figures, this is an exercise that would be useful for other local areas to replicate.

One thing that emerged from those discussions was that different local economies might be more or less vulnerable to different factors. For example, Bristol is particularly dependent upon the EU as a market for its exports. Other places are potentially vulnerable to one dominant EU based firm. And while loss of EU labour would affect a city like Cambridge by cutting into their high-skilled specialists, Peterborough would more likely suffer from a shortfall in labour to fill low-skilled jobs.

We also discussed the adjustments that will likely take place over the medium term. For example, a reduced pool of highly skilled EU migrants in the UK might mean that Bristol and Cambridge lose even more of their specialists to London. The uncertainty of exactly how Brexit will be implemented along with the complexity of the UK's relationship with Europe means that predicting how each city will fare over the medium and long term is fraught with difficulty. As ever, we expect that those places with more diversified economies will be the most resilient.

Despite these differences across places in the ways in which Brexit might affect them, it very quickly became apparent that many aspects of the policy responses – particularly around labour markets, trade and investment – weren't so different. The group were also strongly of the view that a lot of questions around an effective policy response to Brexit had strong overlap with more general questions about the effectiveness of local economic growth policies.

The group recognised that the What Works Centre for Local Economic Growth had already done a lot of work to summarise the available evidence but felt that it would be helpful to have an overview of those findings that were relevant to the policy areas we had been discussing. This document does just that by summarising findings from relevant evidence reviews and toolkits produced by the Centre. Three of these toolkits – on export support and inward investment promotion – were developed specifically to respond to the concerns of the group.

Our evidence reviews and toolkits

Given our focus on local economic growth, we place particular emphasis on outcomes that most directly capture change in a local economy: wages, employment, and productivity. There are, of course, many other important ways in which places differ – in terms of the quality of life that they offer and the cost of living, for example. But, ultimately, if a local economic growth policy is not having a positive effect on wages, employment or productivity it's pretty hard to claim that it is improving local economic performance. That is why this is the main remit of the Centre.

This is not a recipe book. Local context matters and local objectives differ. But areas that are aware of the evidence we present here will be better placed to design cost-effective local interventions that can help drive local growth and better respond to Brexit. We certainly do not know all the answers,

and a key message that emerges from our work is that we need to do more to understand policy effectiveness and to improve the use of evidence in policy making. This is true for many policy areas, but especially important for local economic growth, because on the basis of existing evidence too many schemes have no, or only modest, measurable impact on policy objectives. We need more piloting and testing to better understand what works, where and for whom.

Improved policy design is key to raising both success rates and improving cost-effectiveness. This document summarises a lot of evidence which can help with the design process. To keep things manageable, it does not spend time carefully caveating every single finding. However, it's important to recognise that many of the findings build on a relatively small number of studies, so these (unwritten) caveats are important. The main reviews and toolkits provide much more detail, are freely available on our website, and are the next step in terms of further reading.

The next section highlights some of the general messages on what works. We then turn to individual policies looking at two broad areas most relevant to Brexit impacts: targeting people or firms. We have a section devoted to each of these broad policy areas.

01

So What Works?

Our work to date provides clear evidence on the **relative effectiveness of different policies** in generating additional employment or increasing productivity. In terms of increasing employment, the average success rate is around 50% across policy areas with some policies doing a little better (e.g. for apprenticeships 7 out of 9 report positive labour market impacts), some doing a little worse (e.g. business advice 6 out of 17 report positive employment effects).The overall message is that while many policies are potentially effective against these goals, impacts and cost-effectiveness of specific programmes vary widely. In many cases, our evidence reviews and toolkits point to features of more successful programmes that would help less effective ones improve.

Moving beyond overall success rates, the evidence provides guidance on the **relative effectiveness for different objectives**. For example, the evidence on R&D loans and grants suggests that these are good at raising R&D expenditures (mitigating concerns about crowding out) and that this does increase innovation at beneficiaries; but it's less clear that these play through in to higher employment. Similarly, accelerator programmes for SMEs seem highly effective at raising firms' employment, sales and ability to get external finance; but have mixed effects on firm survival, probably because programmes help companies identify (and shut down) business ideas that would probably fail in the future. We also know that apprenticeships are extremely effective at increasing participants' future employment outcomes, but impacts on wages are mixed and seem to vary by gender. Again, recognising these differences in terms of the effect on different objectives allows us to develop recommendations around specific policy areas that we discuss further below.

In many cases the evidence also provides guidance on the **relative effectiveness for different kinds of areas, firms and workers.** For example, the local economic growth impacts of broadband appear to be stronger for urban than for rural areas and also favour higher skilled workers and skill-intensive firms over lower skilled workers and less skill-intensive firms. Similarly, R&D grants and loans are probably more effective for small and medium size enterprises than they are for larger firms: consistent with the observation that SMEs are more likely to face credit constraints that public support can ease. Reminders for apprenticeship and employment support programmes are most effective for those participants least likely to attend. And when offering support to people affected by major

employment shocks – such as plant closures – high-skilled workers seem to respond best to shorter interventions, and younger workers seem to benefit more from any intervention. This last point raises obvious questions about how to best support affected older workers in these communities.

We found very little evidence either way to suggest success rates are correlated with whether policy is delivered locally or nationally. On the face of it, this suggests that **improving policy effectiveness is less about who controls the policy, and more about how that policy is designed**. However, while there is a large literature on devolution as a whole, we found far fewer studies that test for devolving specific policy fields. So the jury is still out here. Regardless, one thing that is clear is that local flexibilities provide an ideal opportunity to pilot and test different policy design elements with a view to improving cost-effectiveness. The summaries of the toolkits are littered with examples and things for policy makers to consider.

That said, not all policy areas are as ripe for ***local*** experimentation as others and our evidence reviews help identify those areas where caution is warranted. One such area is innovation policy. Our review highlights that the evidence base on whether innovation support improves ***local*** employment is both small and inconclusive. Innovation policy is particularly complicated and fast-moving – and it is not clear that many local authorities have the specialised skills required to craft successful policy in this area (particularly in a way that avoids capture by strong local lobbying – e.g. from large local firms, local universities, etc).

Our evidence reviews and toolkits

Our evidence reviews consider a specific type of evidence – impact evaluation – that seeks to understand the causal effect of policy interventions and to establish their cost-effectiveness. The reviews explain the criteria we use to find these studies (we look for before and after comparisons of scheme beneficiaries and a comparison group who are not supported by the scheme) and summarises the findings from the available evaluations.

Our evidence reviews are complemented by toolkits, which provide policy design guidance based on a slightly wider evidence base. For those more specific policy questions: how to best implement a particular training programme, deal with a major economic shock, or encourage more apprentices to finish their placements, toolkits offer practical advice. Improving programme design is key to increasing success rates and cost-effectiveness. Our toolkits summarise what we know about different elements of programme delivery and how they affect cost-effectiveness.

02

Improving Skills

Skills policy is an important way to support individuals and businesses in responding and adapting to the changes that Brexit is likely to bring to labour markets. In the UK, area level differences in skills are the most important factor driving differences in local economic performance. For individuals, higher skills are associated with better labour market outcomes: higher skilled people are more likely to get a job and earn more income than lower skilled people. For local areas, there is a clear link between skills and economic growth and labour market outcomes. That connection holds nationally, across countries and at a local level for towns and cities. Some evidence suggests that this link isn't simply a result of aggregation – concentrations of high skilled workers may generate positive spillovers, both in the form of higher wages for those higher skilled workers and in terms of higher rates of innovation by firms.

Some worry that investing in skills isn't necessarily a good local growth policy because higher skilled people will move away from the area. In one sense, this is a terribly depressing line of argument. If local growth policy isn't about improving outcomes for individuals, then what is the point of such policy? More prosaically, we should note that many people do stay put in their local area. More than half of workers with no formal qualifications have only ever worked in the city in which they are born. Even for people with degrees, often thought to be highly mobile, this is true for more than thirty per cent of workers. Improving skills is, therefore, the most direct way to improve both individual labour market outcomes and local economic performance.

Many policies play a part in affecting individual skills levels, but the What Works Centre has focused our own work on skills interventions aimed at people once they have left school, and it is the findings from this work that we summarise here.

2.1 Employment Training

Our review of adult employment training programmes covers a range of policies designed to improve skills – from formal qualifications to courses on soft skills and advice on job searching; from classroom teaching to on-the-job internships and in-firm training; from short-term intensive courses of a few weeks, to long term retraining leading to a degree, and lasting two years or more.

Governments support employment training because of the strong links between skills and economic outcomes (discussed above) and because:

- Firms may not provide enough training if they worry that trained workers will leave.
- Firms and workers may under-estimate the benefits of training.
- The public benefits of training, e.g. in the form of higher local economic growth, may exceed the private benefits.

Our evidence review summarised findings from 71 evaluations that met the centre's minimum evidence standards (see the review and our website for more information). Training had a positive measurable impact on participants' employment or earnings in around half of those evaluations. This success rate is similar for national and local programmes, and the state of the local economy is not a major factor in performance. Our toolkits summarise what we know about different elements of programme delivery and how they affect cost-effectiveness.

Key findings

Our evidence reviews identify broad structural features of programmes that are associated with improved performance. Two stand out for employment training:

- Think carefully about programme length: Shorter programmes (below six months, and probably below four months) are more effective for less formal training activity. Longer programmes generate employment gains when the content is skill-intensive.
- Involve employers in training: In-firm / on the job training programmes tend to outperform classroom-based training programmes. Employer co-design and activities that closely mirror actual jobs appear to be key design elements.

Toolkit: Careers Counselling

Careers counselling can help individuals choose the most appropriate training programme to help further career development. Counselling may be provided to the unemployed or to those currently in work. The hope is that good advice will ensure better matches between programmes and participants, making individuals more likely to take-up, or complete, training and increasing the labour market returns.

The available evidence suggests that for the unemployed, counselling usually leads to a higher take up of training, and might lead to more employment or higher wages. But there is some evidence that inexpensive counselling (e.g. unqualified counsellors, fewer contact hours) has little effect. For those already employed, counselling can also lead to higher take up of training, leading to more hours worked or higher wages.

The costs of counselling can vary substantially depending on the degree of support offered (e.g. the length of the counselling sessions or the period over which support is provided). In the programmes for which we have evidence the cost of support varied from a low of £17 per participant to a high of

around £2,000 per participant. The cheapest programme considered delivered no benefits, so does not appear to be cost-effective. More expensive programmes do deliver benefits, but the effects on behaviour are not necessarily strong. Based on effects on training take up, programme costs per additional trainee range from a low of around £5,000-£6,000 for the UK's Employment Retention and Advancement (ERA) Demonstration (this cost also includes a financial incentive) to a high of £21,000 for a Swedish programme (although this programme helped new immigrants who may experience significant labour market barriers). These cost effectiveness figures, however, only capture increased take up and not the potential for a better quality of match between participants and training programmes.

Things to consider:

- Mandatory counselling may reduce uptake of training compared with voluntary counselling.
- In order to deliver the benefits that counselling can offer, ensure that participants understand potential benefits and that counselling is easy to access.
- The quality of counselling (e.g. in terms of the qualification of counsellors or the number of hours of contact) can affect both costs and benefits.
- The costs and benefits of counselling can vary a lot across programmes so it is important to monitor and evaluate their impact on participation in, or completion of, appropriate training.

Toolkit: Pre-qualifications

Pre-qualifications can act as a pathway to further education and training. From the individual's perspective, a pre-training course may help them gain a place or improve their performance on a higher-level training programme, which in turn may improve their job prospects. From a programme design perspective, pre-qualifications can serve as an entry requirement helping identify those who are more likely to benefit from further training.

The available evidence suggests that individuals who gain a pre-qualification increase their likelihood of completing further employment training. Pre-qualifications may also have modest employment and wage benefits.

It is difficult to assess the cost effectiveness of pre-qualifications because lower level programmes are not only pathways to higher level programmes but also valid qualifications in their own right. As a result there is little discussion of cost effectiveness in the studies considering the effect of pre-qualifications.

Things to consider:

- Changes in entry requirements are likely to be very low cost. But requiring a pre-qualification may lead to cream skimming. Although low cost, this may not be a desirable way to achieve higher completion rates for a programme.
- Programmes should be designed to ensure that pre-qualifications target the right people as their impact can vary across individuals. They may be particularly useful for disadvantaged young people, less able to access higher level qualifications.
- Pre-qualifications may provide the largest benefits for those who use to them to gain access to higher-level qualifications. It may be desirable to design programmes to ensure this transition occurs with high probability.

Toolkit: Financial incentives

Financial incentives in employment training programmes are payments that aim to increase participation in, or completion of, training. They may be offered to either the employer or the training participant. They may come in the form of a lump sum payment at the beginning or end of the programme, instalments during the programme, or a subsidy for the cost of participation (e.g. to the employer to cover the training course fees).

The evidence suggests that payments to either individuals or firms may increase participation in, or completion of, employment training, but that effects on employment and earnings are less likely. There is some evidence that financial incentives partially crowd out privately-funded training.

Incentives tend to be fairly expensive, since they involve cash transfers to firms or participants and it may be thought that awards need to be large to incentivise training (which is not necessarily the case - see below). But they can also have quite strong effects on behaviour, so it is important to compare costs and benefits. For example, the incentive element of the UK ERA programmes cost around £500-£1,000 per participant. Given the effects on behaviour this equates to a cost of £5,000-£6,000 per extra trainee (this cost also includes a career counselling component).

One thing that emerges from the evidence is that incentives to increase participation in adult training do not necessarily need to be large. One Swiss voucher programme reports sizeable positive effects for training vouchers of relatively low face value (about £90). These effects were not much smaller than for vouchers of much higher face value (£880) implying that the cheaper voucher are five times more cost effective at promoting training (although this does not take into account potential differences in the quality of the courses taken).

Things to consider:

- Increased participation and completion resulting from financial incentives does not necessarily translate into increased employment or wages. This suggests programmes where financial incentives are provided need to think carefully about how they could support the transition from training to work.
- Financial incentives need not be expensive. One study finds that the lowest value training vouchers were the most cost-effective way to increase participation. That said, more generous financial incentives can be expensive, so the impact on participation or completion needs to be carefully monitored and evaluated
- Financial incentives will not be appropriate for every programme. Other considerations such as increased wages or a job at the end of the programmes may make the financial incentive less impactful.
- Benefits and costs may differ depending on whether the firm or the individual receives the incentive.
- Increased participation on programmes with financial incentives may come at the expense of decreased participation for other training programmes.

Toolkit: Reminders

Reminders provide people with information about available training or forthcoming courses for which they are enrolled. For example, they may remind people about their timetable for the coming week. Reminders may be important because individuals juggle tasks to reach competing objectives and things like training courses may be easily neglected. Sending individuals reminders by text message or email is a very cheap way to potentially increase attendance for training programmes.

One UK study of SMS (text message) reminders finds a positive impact on course attendance and final exam performance.

Whilst we only found one study on reminders for training programmes, the effectiveness of reminders is supported by strong evidence available from other contexts (such as claiming benefits). The evidence overwhelmingly suggests a positive impact of reminders on behaviours such as attendance.

Things to consider:

- Reminders that improve training attendance may also have positive effects on performance, as measured by final grades.
- The notice should be as simple as possible and should highlight the benefits.
- Trialling different wording may be a simple way to increases response rates. In our examples, emphasising the size of potential benefits or reminding the individual of their personal motivation for the activity, improved effectiveness.
- For training programmes aimed at the unemployed, it may be that SMS has a wider reach than email.
- Reminders are often more effective for those least likely to attend.

Find out more on employment training

For the full **employment training evidence review** go to:
http://www.whatworksgrowth.org/policy-reviews/employment-training/

For all **employment training toolkits** go to:
http://www.whatworksgrowth.org/resources/employment-training-toolkit

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

2.2 Apprenticeships

Apprenticeships are positions of paid work in a firm including training provided by the employer, typically leading to a formal qualification or title. They are often targeted specifically at school leavers and the apprentice often acquires a formal qualification by the end of the apprenticeship

Apprenticeships can improve local economic growth in much the same way as employment training. They are intended to improve the skills, wages and future career progression of participating individuals. They can also impact on the productivity of those firms taking on apprentices.

Governments support apprenticeships because of the strong links between skills and economic outcomes and because:

- Firms may not provide enough apprenticeships if they worry that trained workers will leave.
- Firms and workers may under-estimate the benefits of apprenticeships.
- The public benefits of apprenticeships, e.g. in the form of higher local economic growth, may exceed the private benefits.

A complication arises from the fact that not all apprenticeship systems are the same. A lot of discussion in the UK focuses on the German system, in which apprenticeships are an integral part of the national education system, with centralized provision and chambers of commerce closely involved in regulating content and quality. As a result of this complexity, it is unsurprising that the evaluations that we end up considering cover countries that approach apprenticeships in a slightly different way. As noted, this makes them both harder to define and more difficult to compare.

In the UK, the government primarily supports apprenticeships by splitting the cost of training the apprentice with the participating firm. The three million apprenticeships to be created in the UK by 2020 are to be funded by a levy on major employers. Firms can then access this funding and provide apprenticeships via an apprenticeship voucher.

Our evidence review summarised findings from 27 evaluations that met the centre's minimum evidence standards (see the review and our website for more information). The available evidence suggests that apprenticeships can improve skill levels and stimulate further training or study. Apprenticeships can also increase wages, although for some schemes effects are negative and vary by type of participant. Apprenticeships tend to have a positive effect on a participant's subsequent employment (and also reduce unemployment post-programme).

Unfortunately we have very little evidence on the benefits to firms. We also do not know if apprenticeships work better in some sectors than others, or if local schemes perform differently to national schemes. This suggests that a focus on improving programme design is key to increasing success rates and cost-effectiveness. Our toolkits summarise what we know about different elements of programme delivery and how they affect cost-effectiveness.

Key findings

Our evidence reviews pull out broad structural features of programmes that are associated with improved performance. Two stand out for apprenticeships:

Apprenticeships may be more likely to increase employment than other forms of employment training (unless that training also involves an in-firm element). The evidence of impact on wages is more mixed and appears to vary by gender.

Higher level apprenticeships (specifically, Level 3 and above) may offer better outcomes but we do not know if this is because stronger candidates gravitate towards more demanding programmes. If this is the case, policymakers need to consider how to address the needs of those 'left behind' by this type of apprenticeship offering.

Any scheme should carefully consider how to recruit firms to provide apprenticeships, and trainees to fill them. A better understanding of the costs and benefits to firms will help in this, as will a better understanding of which policy design aspects increase take-up and reduce dropout.

Toolkits: Mentoring

Mentors provide support to a less experienced person working in the same field or sharing similar experiences. A mentor can act as a guide for the apprentice, providing them with advice on completing their apprenticeship as well as future career options and progress. There is too little evidence available on mentoring to reach any strong conclusions on effectiveness, although it does seem that mentoring can sometimes help.

Things to consider:

- Our toolkit on counselling in employment training suggests that mandatory counselling may be less effective than voluntary counselling. It may be the case that these findings generalise to mentoring for apprenticeships.
- Mentoring might be more effective for disadvantaged apprentices.
- Mentoring may be more effective in addressing issues directly related to the apprenticeship rather than personal or social issues.

Toolkit: Pre-apprenticeships

'Pre-apprenticeships' are programmes which precede an apprenticeship, and provide foundation skills required to help with a full apprenticeship. They may be school or vocational based (or a mix of the two). In some cases, pre-apprenticeship programmes are specifically designed to aid the transition to, and completion of, a full apprenticeship. In other cases, they take the form of lower-level qualifications, which may help transition into or completion of apprenticeships, despite these not being specific programme objectives.

The available evidence suggests that pre-apprenticeships can increase apprenticeship enrolment and that they may be more effective at increasing enrolment than completion.

Things to consider:

- Longer pre-apprenticeships may be more beneficial than short ones, but not if taken in parallel with formal schooling. We need to do more to understand what features of pre-apprenticeship determine effectiveness.
- Pre-apprenticeship programmes may be particularly effective for disadvantaged groups.

Toolkit: Financial incentives

'Financial incentives' can refer to the wage paid to the apprentice during training or to subsidies given to employers to hire and train apprentices. Subsidies given to the employer may also be passed on to the apprentice in terms of a higher training wage.

Increasing training wages relative to alternative employment can have a positive effect on completion rates. But higher training wages may not affect completion rates if the apprenticeship itself delivers a high wage bonus upon completion.

Employer subsidies may positively affect hiring of apprentices, but effects may vary across industries and may not occur if the subsidy is passed on to the apprentice in the form of a higher training wage.

Things to consider:

- The incentive structure may need to be carefully designed to reach specific policy goals. For example, completion rates might be better achieved by providing completion bonuses to the apprentice, and take-up by firms might be better achieved by hiring bonuses for businesses.
- Incentivising completion through the training wage may be more cost effective for apprentices in occupations where the eventual wage premium is lower.
- In comparison to general employment training, additional financial incentives appear less likely to improve the take-up, or completion, of apprenticeships (see our employment training toolkit). These differences may arise because some employment training programmes combine financial incentives with sanctions, which apprenticeship programmes typically wouldn't use. However, workers also have multiple reasons to undertake apprenticeships (higher wage job at the end, respected qualification, etc.) so these may swamp the effect of any additional financial incentive.

Find out more on apprenticeships

For the full **apprenticeships evidence review** go to:

http://www.whatworksgrowth.org/policy-reviews/apprenticeships/

For all **apprenticeships toolkits** go to:

http://www.whatworksgrowth.org/resources/apprenticeships-toolkit

For further information on our **methodology** and more **resources by policy area** go to:

http://www.whatworksgrowth.org/resources/

03

Responding to major job losses

3.1 Major Job losses

So far, we have been looking at schemes that are focused on improving long-run economic growth. But sometimes, policy needs to respond quickly to shocks to the local economy. In the context of Brexit, some places feel particularly vulnerable to big employers moving out in response to the change in access to EU markets.

When faced with major job losses in a single area, how can local policy makers best support those left out of work? Major job losses may occur when large firms close, downsize or restructure in a single town or city; or when the effects of structural change are felt in communities where affected industries are geographically concentrated. These job losses may be highly uneven in terms of job types and occupation, and in terms of the types of worker affected. We didn't find enough evidence for a full review, but our toolkit focuses on the workers involved, and on interventions to help improve their economic outcomes and life chances.

Things to consider:

- There is some evidence to suggest that re-training post redundancy may offer better value than outplacement pre-redundancy (presumably because this reduces deadweight for people that would have found employment anyhow). This finding runs counter to some case study evidence, highlighting the need for further evaluation to help clarify whether the timing of support matters.
- Technical courses may provide larger wage effects than non-technical courses.
- Expenditure allocated to individual case management is positively associated with re-employment rates.
- Young workers may benefit more than older workers, especially given that younger workers are likely to stay longer in the workforce. This raises questions about how best to support older workers apparently responding better to short-term interventions.

- The impacts of training seem to vary depending on the skills level of the recipient, with higher skilled users responding better to shorter interventions.
- The costs can vary a lot across programmes so it is important to monitor and evaluate their impact. In particular, we need to know much more about the wider benefits that arise from area-level schemes as these look expensive in terms of the direct support provided.

Find out more on major job losses

For the **major job losses** toolkit go to:

http://www.whatworksgrowth.org/resources/toolkit-responding-to-major-job-losses/

For further information on our **methodology** and more **resources by policy area** go to:

http://www.whatworksgrowth.org/resources/

04

Supporting Firms

Places will also need to respond to the changes in trade patterns brought about by Brexit by helping firms adjust and take advantage of new opportunities. As discussed above, in the UK, area-level differences in skills are the most important factor driving differences in local economic performance. But, even if we could equalise skills across areas, disparities would persist because of area-level differences in productivity.

Some of these differences in area-level productivity are explained by the quality of local institutions or the available infrastructure (e.g. roads, rail and broadband) as well as by the size of the area itself and its proximity to other areas. But reducing spatial disparities, and driving growth across all local areas, will also require us to tackle other firm-level factors – such as differences in technologies, in private sector investment rates, and in management and entrepreneurial capacity – that also help explain differences in productivity across the UK. Our reviews of evidence on business advice, on access to finance and on innovation policy consider some of the ways in which we might do this and outline ways in which we could improve policy effectiveness. Our toolkits on accelerators and incubators, and on support for exports and inward investment provide additional insight.

4.1 Business advice

Our review of business advice focuses on programmes that are funded by government and that provide information, structured advice or longer-term mentoring to firms. These schemes aim to increase rates of firm creation, to improve business survival, and to promote business productivity and employment growth – thereby improving economic growth.

Management practices matter for productivity and UK firms on average are worse managed than those in the US and Germany. A key driver of this is the poor management practices in smaller and family run firms. Managers of these firms tend to lack information on best practice. Business advice may be one way to fill this gap.

Publicly supported advisory services can be justified on two grounds – information failures and spillovers. In the first case, when information is hard to access or of variable quality, firms may under-

invest in services that could support their businesses. Economists refer to these challenges as 'information asymmetries'. Such market failures may result when business owners are:

- Unaware of information and advice that would be valuable to them;
- Unclear about how to access such resources;
- Concerned about the quality of advice offered;
- Facing financial or time constraints on accessing advice which exceed the perceived benefits;
- Worried that confidential information could end up in the hands of competitors.

In principle, public policy can solve these problems and help businesses to grow by providing impartial, free or subsidised advice and mentoring.

In the second case, we can imagine that gains to firms in business support programmes might 'spillover' to the wider economy. If business advice drives up firm productivity, for example, consumers gain through cheaper / better goods and services. Better performing firms might also take on more staff, or set up new supply chain relationships with other firms in a local area. Firms paying full cost for business advice won't take account of these wider benefits, so there's a case for government support to try to increase uptake and ensure the socially optimal level of provision.

It is important to keep in mind that the ultimate objective of business support should be its impact on the local economy in terms of employment, wages and productivity. While evaluations often consider increases in profit or turnover, the link from these gains to firms to benefits to the local economy is not clear. For example, additional sales may come at the expense of other local firms, reducing the net-benefits of the programme. This is more likely to be a problem for firms that tend to serve local markets (see our evidence review on other Area Based Initiatives).

Our evidence review summarised findings from 23 evaluations that met the centre's minimum evidence standards (see the review and our website for more information). The available evidence suggests that business advice can help improve firm performance on a range of outcomes. Business advice programmes show somewhat better results for sales than they do for employment and productivity, which is a little worrying given our discussion above on displacement.

We found no evidence that would suggest one level of delivery – national or local – is more effective than another and it is also difficult to reach any conclusions about the effectiveness of public-led vs. private-led delivery. As with both employment training and apprenticeships, this suggests that a focus on improving programme design is key to increasing success rates and cost-effectiveness. Our toolkits summarise what we know about different elements of programme delivery and how they affect cost-effectiveness.

Programme design: Overall structure

Our evidence reviews identify broad structural features of programmes that are associated with improved performance. One in particular stands out for business advice:

Programmes that used a hands-on 'managed brokerage' approach may perform better than those using a light-touch approach (although this conclusion is based on only one comparison study). This suggests that a strong relationship and a high level of trust between advisor and client may be important to the delivery of positive programme outcomes. But this kind of support is also more expensive. It is not clear, therefore, which of these two approaches is more cost-effective.

Toolkits: Tailored support

Tailored support is the provision of business advice that is tailored to the requirements of the specific firm or entrepreneur. It may involve any type of support (e.g. counselling, subsidised consultancy, training, or other types) but often involves a greater intensity of support over a longer period of time. Our toolkit specifically considered schemes that provided some kind of tailored support in addition to more generalised support (which might include subsidised consultancy, itself a form of tailored support considered in a separate toolkit). Tailored support may be offered either to established firms or to individual entrepreneurs before or after they start a business and may target a number of different aspects of firm performance.

Tailored support may be more likely to increase employment and productivity than survival or sales (in contrast to findings of our systematic review). This effect may be real, or it may be due to the self-selection of firms that use tailored support when they are already looking to grow employment or improve productivity.

For the programmes where we have evidence, cost-per job estimates vary from around £2,000 per additional job created when tailored support is targeted at start-ups and delivered on top of previous forms of advice to £12,000 per job created when tailored support is the only scheme in place and is delivered to already existing firms. This would appear to be a higher cost per job than non-tailored public advice, subsided consultancy or training (see below) reinforcing the concern raised above on the cost-effectiveness of more hands on support if it is not effectively targeted.

Things to consider:

- The impact of tailored support may vary depending on the structure of the programme (e.g. programmes with fewer firms enrolled may provide bigger benefits to targeted firms).
- The benefits of tailored support may differ according to the type of firm (e.g. young firms may benefit more).
- Tailored support is likely to be more expensive than standardised support. Given the limited evidence base on effectiveness, the impact on firm performance needs to be further monitored and evaluated to establish whether it is more cost effective.

Toolkit: Public advisors

Public advisory services offer counselling or advice on running a business. The advice is provided directly by publicly funded agencies (as opposed to schemes where the public sector facilitates access to private sector advice). Public advisory services may be offered either to established firms or to individual entrepreneurs before or after they start a business.

Public advisory services may be more likely to increase employment than productivity, sales or profits (in contrast to findings of our systematic review). This effect may be real, or it may be due to the self-selection of firms that use tailored support when they are already looking to grow employment or improve productivity.

For the programmes where we have evidence, cost-per job estimates vary from around £1,000 to around £3,200 per job created.

Things to consider:

- The effect of support to individual entrepreneurs may depend on whether advice is provided before or after business start-up (with possibly greater benefits when provided before).
- There may be diminishing returns to the number of hours spent supporting a particular business, which suggests that mechanisms that limit the quantity of advice provided may improve cost-effectiveness.
- The costs and benefits of support may differ according to the type of firm (e.g. large firms may benefit more) and the characteristics of the entrepreneur (e.g. unemployed don't forgo earnings).

Toolkit: Mentors

Business mentors (or coaches) are experienced business professionals who provide advice to SMEs. The role of the public sector is usually not to provide advice directly but to play a financing and 'matchmaking' role.

Mentor programmes may improve firm performance in terms of sales, value added and productivity. We do not have any evidence on the employment effects.

Things to consider:

- For other forms of business advice (e.g. public advisors) there is some evidence of diminishing returns to the number of hours spent helping a particular business. It would be useful to know if this is true for mentoring.
- The benefits of mentoring may differ according to the type of firm (e.g. service firms may benefit more from mentoring than manufacturing firms).
- Mentoring may be better focussed on firms that require bespoke advice, possibly as part of a more tailored support package.
- We currently have no good evidence on whether business mentoring is a cost-effective means of increasing employment or productivity.

Toolkit: Subsidised Consultancy

Subsidised consultancy services are funded through grants or firm vouchers, or for individual entrepreneurs, that cover all or part of the costs of private advisory services. They are usually targeted at micro-, small- or medium-sized firms and aim to improve various aspects of business performance.

Subsidised consultancy is more likely to improve firm performance outcomes than survival rates or business creation. For the programmes where we have evidence, benefits to the firm, in terms of employment and turnover, far exceed the costs of consultancy services (with benefits between 7.5 and 50 times costs depending on the study).

Things to consider:

- Effects and costs may differ depending on whether the programme is a one-time service or it lasts for a longer period of time. Annual returns may not need to be very high to justify one-time services whereas more intensive interventions will need higher returns.
- The effect of subsidised consultancy may vary by firm characteristics (e.g. it may be more effective for medium-size firms than for smaller firms).

- The costs of subsidised consultancy can vary a lot across programmes so it is important to monitor and evaluate their impact, especially on firm performance.
- Given the potential large benefits to firms, it may also be cost-effective for policy to focus on fixing the information problems in these markets.

Toolkit: Training

Training involves publicly provided courses delivered to existing firms or to individuals aiming to start a business. Start-up (or entrepreneurial) training aims to increase the likelihood that an individual successfully launches a new business. For existing firms, training aims to improve business performance e.g. in terms of business growth, innovation or survival.

For start-ups training usually leads to a higher probability of launching new ventures, but does not necessarily improve long run effect on business performance. For existing firms, effects of training are stronger for profits and employment, and more moderate for survival.

Three studies provide cost per job estimates none of which exceed £1,200.

Things to consider:

- For entrepreneurial training courses (training for start-ups), it may be more cost-effective to target particular groups that face particular barriers to starting up their own businesses (e.g. women or unemployment and welfare benefit recipients).
- Training is effective in increasing start-up rates but does not appear to improve performance for these firms once established. In contrast, training designed for existing firms does improve performance.
- Since there are no persistent effects of start-up training on the performance of new ventures in the long run, the cost-effectiveness of such schemes should be interpreted carefully.

Find out more on business advice

For the full **business advice evidence review** go to:
http://www.whatworksgrowth.org/policy-reviews/business-advice/

For all **business advice toolkits** mentioned in this section go to:
http://www.whatworksgrowth.org/resources/business-advice-toolkit

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

4.2 Access to Finance

Access to finance refers to public loans or government subsidised loans for firms. Such loans are intended to support and stimulate economic growth by addressing potential market failure in the provision of finance to firms.

There are a number of reasons why government might support access to finance schemes:

- Enabling start-up, micro, small and medium sized firms to grow.
- Supporting the growth and development of innovative business when social returns exceed private returns (e.g. because of wider impacts on innovation and knowledge, or other societal benefits).

Schemes can support those firms unable to access private finance by:

- Changing regulation;
- Providing information;
- Providing incentives to lenders (such as tax breaks);
- Indirectly providing finance (loan guarantees, or 'funding for lending' type schemes);
- Directly providing finance.

Our evidence review summarised findings from 27 evaluations that met the centre's minimum evidence standards (see the review and our website for more information).

Access to finance schemes tend to be effective in improving access to debt finance, although there is some evidence that loan guarantees may increase default risk. The evidence on impact on access to equity finance is more mixed.

Even though schemes do improve access to finance, this doesn't necessarily translate into improved firm performance.

There is also little available evidence on whether positive effects on individual firms translate into greater local economic growth. It's possible that gains to supported local firms come at the expense of other non-supported local firms.

The existing evidence base does not provide much guidance on how to develop programmes to improve policy effectiveness. If policymakers want to use access to finance programmes to support local economic growth, we need more evidence on the most effective ways to deliver these programmes.

Find out more on access to finance

For the full **access to finance evidence review** go to:
http://www.whatworksgrowth.org/policy-reviews/access-to-finance/

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

4.3 Export and Inward Investment Support

Business advice, access to finance programmes and other types of business support may be specifically targeted at promoting exports or encouraging inward investment. Government may choose to support these activities for the same broad reasons that justify the provision of more general business support. Supporting firm expansion through increases in exports rather than domestic sales also reduces the risk of domestic displacement – i.e. that growth in supported firms comes at the expense of other un-supported domestic firms. There is also some evidence that increased exports may generate indirect productivity effects because firms are able to learn by exporting. Similar arguments apply to inward investment which may be less likely to displace domestic investment and may also lead to indirect productivity effects as firms are able to learn from foreign firms.

Toolkit: Export Promotion Agencies

Export promotion agencies (EPAs) provide services that aim to help firms sell their products overseas. EPA services fall into four broad categories. EPAs may provide market information regarding export markets; undertake image promotion of the country or region, usually through advertising campaigns, promotional events, and advocacy; provide consultancy services to firms such as employee training and technical assistance; or provide marketing services such as exposure in trade fairs and missions.

The evidence suggests that EPAs can increase exports, although it may be less effective than relatively cheaper Export Credit Agency (ECA) support. See below.

It's likely that additional exports do not fully crowd out domestic sales: supported firms see increased overall turnover.

As discussed above, the broader evidence base suggests that firms can 'learn by exporting'. However, while some schemes may improve firm performance, most don't have a measurable impact.

Things to consider:

- Limited resources may be most productively spent educating and informing businesses about exporting: (Lighter touch) market information appears to be more effective than (more intensive and expensive) market service provision. Evidence on the relative effectiveness of other types of EPA support is not available. We need to do more to understand cost-effectiveness of different types of support.
- We don't know which firms benefits most from EPA support suggesting that targeting on firm size, sector or product characteristics would need to be based on theoretical considerations (such as barriers to entry) and will not necessarily improve scheme performance.
- There is not a lot of evidence that export support increases domestic firm performance, suggesting that other forms of direct business support might be more effective if this is a policy objective.
- Despite criticism of UKTI, there is some evidence that UK support arrangements are at least as effective as support in other countries.

Toolkit: Export Credit Agencies

Export Credit Agencies (ECAs) help finance exports by providing direct credit, credit guarantees, or credit insurances. Direct credit may be provided either to the exporting firm (allowing them to supply goods on credit) or to the importing firm (allowing them to buy goods with cash). Credit guarantees

facilitate exporter or importer borrowing from commercial banks. Finally, insurance underwrites the value of exports provided on credit. In all cases, the ECA bears the risk of default by the firms involved. As ECAs tend to support lending or guarantees that would be unprofitable for private sector firms, they are usually either public sector, or a combination of public and private sector. ECA support tends to cover all sectors, but take up is greater in exporting industries.

Overall, the evidence suggests that ECAs are a fairly effective way to increase exports, and that they may be more effective than most forms of Export Promotion Agency (EPA) support (it appears that the provision of market information by EPAs may be the exception).

In contrast to EPAs, we know less about the impact of ECAs on firm performance, including whether increased exports crowd out domestic sales.

Things to consider:

- (Cheaper) insurance provision may be more cost-effective than (more expensive) credit provision. We need to do more to understand cost-effectiveness.
- We don't know for which countries support is more effective, which suggests that targeting on the basis of markets, firm size, sector or product characteristics would need to be based on theoretical considerations (e.g. around barriers to entry) and will not necessarily improve scheme performance.
- We do not yet have any high quality evidence on whether these schemes work in the UK.

Toolkit: Investment Promotion Agencies

Investment promotion agencies (IPAs) aim to increase inward flows of foreign direct investment (FDI). Increased FDI may bring both direct and indirect local economic benefits (for example, by directly providing employment or indirectly improving productivity of domestic firms). IPAs may fund image building activities such as advertisements, PR, etc.; undertake investment generation by identifying and encouraging potential investors; provide investor servicing/facilitation to help investors find business opportunities or navigate bureaucracy; or engage in policy advocacy – such as lobbying government.

IPAs may increase FDI inflows although in some cases support has no effect.

The available evidence suggests that regional IPAs are no more or less effective than national support.

Things to consider:

- Most of the evidence suggests IPA support has little effect on other aspects of firm performance, suggesting that other forms of direct business support might be more effective if this is a policy objective.
- We don't know whether IPAs are more effective for some sectors than others, suggesting that targeting would need to be based on theoretical considerations (such as barriers to entry) and will not necessarily improve scheme performance.
- We don't know which types of IPA support are most effective. We need to do more to understand cost-effectiveness of different types of support.
- One study suggests that IPAs are more effective when they are public-private partnerships and have members of the private sector on their supervisory board. Reporting directly to the head of government helps too.

Find out more on export and investment support

For all **export and investment support toolkits** mentioned in this section go to:
http://www.whatworksgrowth.org/resources/business-advice-toolkit

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

4.4 Accelerators and Incubators

Accelerators and incubators are business support programmes that provide packages of support to young firms to help them grow. Widely used in the tech sector, they are now increasingly applied in other industries.

The reasons why government might support accelerators and incubators are similar to the reasons why government might support access to finance schemes:

- Enabling start-up, micro and small and medium sized firms to grow.
- Supporting the growth and development of innovative business when social returns exceed private returns (e.g. because of wider impacts on innovation and knowledge, or other societal benefits).

Our toolkits consider the value added of accelerator and incubator business models, but we didn't find any studies that directly compare the two approaches so we don't yet know which is might be more effective.

Toolkits: Accelerators and incubators

Accelerators use competitive entry and a range of intensive support, typically targeting start-ups aged 3-6 months for a period of up to a year, although often for much less time. Accelerators may be non-profit, although they are more often operated by venture capital firms who take equity stakes in participating companies. The application process for accelerators is typically competitive and only a few firms are accepted into each cohort. For instance, YCombinator, a top US accelerator, has two application seasons per year and accepts just two or three per cent of the several thousand firms that typically apply each year. After being accepted, firms participate in the accelerator for three to six months. During their time in the accelerator, firms are typically provided with an on-site work place. Additionally, founders receive business skills training in the form of seminars, as well intensive mentorship from members of established firms (in contrast to the light touch support provided in incubators).

Accelerators may increase participating firm employment, but are sometimes associated with lower firm survival rates.

Taken at face value, this suggests that accelerators may sometimes be bad for firm survival. An alternative – and more plausible – explanation is that accelerators help participants to quickly gauge the quality of their ideas (e.g. via investor / peer feedback on demo days) and encourage those with weak propositions to quit early, rather than continuing until they fail 'naturally'.

Accelerators generally have a positive effect on firms receiving subsequent external funding (e.g. from angel investors or venture capital firms).

Things to consider:

- If accelerators 'kill' participating firms, is that a bad thing? In many cases programmes help firms survive, but some evidence goes the other way. It's plausible that this is down to programme managers helping founders identify weak ideas and kill them, allowing entrepreneurs to develop new ideas.
- In addition to funding, accelerators often provide firms with intensive mentorship, networking, and co-working space. There is limited evidence on which of these have the largest effect on firm outcomes, so providers should experiment to see what configuration of these works best for them.
- Accelerators seem to be most effective in regions with rich entrepreneurial ecosystems, and in richer regions. Policymakers should think carefully about the effectiveness of public support for accelerators in poorer regions and whether there is any substantive market failure in accelerator provision in their area.

Toolkit: Incubators

Incubators are business support programmes that provide co-working and business support to young firms on a rolling basis. Incubators typically use non-competitive entry and comparatively 'light-touch' support, typically targeting start-ups aged 1-5 years. Incubators are either non-profit or run as managed workspaces where firms have rolling contracts and pay rent, usually staying for between one and five years. Incubators provide their firms with workspace and ad hoc training that is directly relevant to the business (e.g. in accounting). Mentorship is also provided, but is often minimal and tactical, as opposed to the more intense, scheduled, and consistent mentorship sessions provided by accelerators.

As with Accelerators, Incubators may increase participating firm employment, but are sometimes associated with lower firm survival rates.

In contrast to Accelerators, we don't know much about the impact of Incubators on external funding, although we do know slightly more about how the structure of the incubator influences outcomes.

Things to consider:

- If incubators 'kill' participating firms, is that a bad thing? In many cases programmes help firms survive, but some evidence goes the other way. It's plausible that this is down to programme managers helping founders identify weak ideas and kill them, allowing entrepreneurs to develop new ideas.
- What type of support should incubators provide? Targeting a specific sector produces better results for firm survival. On the other hand, networking events do not appear to be effective and providing training is only effective in areas with more competition. There is limited evidence here, however, so providers should experiment to see what configuration works best for them.
- There is little indication of a positive relationship between tenancy length and firm performance, in terms of employment, sales or survival. There is some evidence that firms are less likely to get funded, become independent, or be acquired the longer they are incubated.

- Firms that have patents survive longer; firms with patents citing academic research are more likely to secure funding.
- Overall, affiliation and using university research seems to be more helpful than involving individual academics.
- Impacts of different types of support seem to differ based on how competitive the environment is in which they are operating. Policymakers should think carefully about the effectiveness of public support for incubators and whether there is any substantive market failure in incubator provision in their area.

Find out more on accelerators and incubators

For the **accelerator and incubator toolkits** mentioned in this section go to:
http://www.whatworksgrowth.org/resources/business-advice-toolkit

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

4.5 Innovation policy

Innovation involves the invention, diffusion and exploitation of new ideas. In our work so far the What Works Centre has been particularly interested in innovation programmes where governments support private sector research and development (R&D) with the aim of generating or commercialising new ideas, products or processes.

Innovation is an important influence on long-term economic growth for many reasons:

- It can cut costs and help firms to develop smarter ways of working, leading to higher productivity, and increased profits.
- It can help firms develop new products.

Governments support R&D because there are 'spillover' effects from innovation, such that the gains to society can far outweigh the benefits to individual innovators. Individual firms are likely to underinvest in innovation because of these spillovers and because the returns to innovation are highly uncertain. Governments can support innovation by doing their own research, or can provide direct and indirect support to R&D in many different ways.

Our evidence reviews looked at two sets of innovation programmes - grants, loans and subsidies, and tax credits – and summarised findings from 63 evaluations that met the centre's minimum evidence standards (42 for grants, loans and subsidies, 21 for tax credits; see the review and our website for more information).

R&D grants, loans and tax credits

R&D grants, loans and subsidies, and tax credits can positively impact R&D expenditure, although effects are not always positive. They can also lead to additional innovation for recipients, although again effects are not always positive. For grants, loans and subsidies there is some evidence that the

effects differ across types of innovation, and are weaker for patents than for (self-reported) measures of process or product innovation.

R&D grants, loans and subsidies can positively impact productivity, employment or firm performance (profit, sales or turnover). There is some evidence that support is more likely to increase employment than productivity. And, as with other forms of business support, benefits to firms in the form of increases in profit, sales or turnover, don't necessarily translate into benefits to the local economy. For example, additional sales may come at the expense of other local firms, reducing the net-benefits of the programme.

We don't have evidence on the impact of tax credits on other aspects of firm performance.

Our evidence reviews pull out broad structural features of programmes that are associated with improved performance. Three in particular stand out for innovation policy and is common to both R&D grants, loans and subsidies and tax credits:

- Both types of support are more likely to improve outcomes for small to medium-size companies than for larger ones. In part this may be because for larger firms, public support makes up a relatively small amount of overall R&D spend, so positive effects are harder to detect. But it's also likely that smaller firms face greater financial constraints, making them more responsive to support.
- R&D grants and loans have a stronger impact on reported innovation than on patents.
- Little evidence for the downstream economic impacts of R&D tax credits (as yet).

Overall, while there is clear evidence that support increases to R&D expenditure and may lead to additional innovation at supported firms, there is far less evidence that considers whether these firm level benefits generate significant productivity and employment impacts at the local level. Hence our observation above that caution is warranted when thinking about local innovation policy.

Find out more on innovation

For the full **innovation evidence review** go to:
http://www.whatworksgrowth.org/policy-reviews/innovation/

For further information on our **methodology** and more **resources by policy area** go to:
http://www.whatworksgrowth.org/resources/

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