Fixing a Broken Training System: The case for an apprenticeship levy

ALISON WOLF

July 2015

SUMMARY

During the 2015 election campaign, the main parties vied with each other to promise more and better apprenticeships. The Conservatives won, and so government policy now includes a pledge both to deliver 'three million new apprenticeships' over the next five years, and to 'ensure they deliver the skills employers need'. Those two commitments are going to be very hard indeed to reconcile.

Should apprenticeship be seen as important for successful job generation, productivity and wage growth? Yes: it can and should be a major contributor. But are the funding and tools in place which can actually make it so? Definitively not.

This paper explains why, and argues for a major funding reform: an apprenticeship fund, with its own trustees, supported by a small, hypothecated payroll tax. Without such a reform, and in today's British labour market, the 'three million' pledge is far more likely to waste large sums of public money, and downgrade apprenticeship quality, than it is to provide the skills that a more productive economy requires.

KEY POINTS

- A combination of central targets for apprenticeship 'starts' and the outcomes-based funding system, pursued by successive governments, has incentivised providers of training to engage in a 'drive to the bottom' where large numbers of short, low level and often low quality apprenticeships are favoured over more rigorous, longer, high quality apprenticeships.

- There is not enough funding from government or businesses to deliver the high skill apprenticeships required to increase UK productivity and meet labour market demand. Employers have been slashing their own spending on and commitment to training at the same time as government budgets have been squeezed.

- The current government's pledge to create three million new apprenticeships in the next five years, while also ensuring they deliver the scientific and technical skills UK businesses need to increase productivity, is impossible to meet under the current apprenticeship system.

- Under current funding arrangements, three million new apprenticeships would leave funding of only £2567 available per apprentice. Currently, only two apprenticeship frameworks, out of more than 200, receive government support below £3000, meaning it will be impossible to meet the three million target and improve the quality and labour market relevance of apprenticeships at the same time.

- Turning apprenticeship back into an institution which reflects labour market needs, develops young people's skills to a high level, and makes a genuine contribution to increasing productivity requires two major changes: a return to the employer-apprentice contract as central and defining; and, a much higher spend per apprentice than the current system provides.

- A National Apprenticeship Fund, into which every employer would pay in via a small levy on payroll, would provide more money, allow spending decisions to be controlled by employers, and will ensure that all employers are directly involved with the apprenticeship system, even if they do not currently employ an apprentice.

- The key features of a National Apprenticeship Fund would be:
    - Every employer would pay in via a small levy on payroll, similar to taxes in other EU countries with successful apprenticeship systems, such as Denmark, France and Austria.
    - Anyone who employed an apprentice would be subsidised by the fund at levels well in excess of their own individual contribution.
    - The employer of the apprentice would determine where that training took place, selecting from an approved list of institutions.
    - The current policy of individual government contracts with 'training providers' to find and deliver 'completed' apprentices would cease. All apprenticeships would be funded through the apprenticeship fund, on the basis of an employer-apprentice contract.
    - Government would also contribute to apprentice training costs, in order to cover the cost of the 'general education' part of the apprenticeship. It would do so by continuing to subsidise approved institutions which offer training. However, this money would reach institutions through a different funding stream, not through the fund.
    - The apprenticeship fund would be not be treated as a part of general revenue. The student loan system provides a clear precedent for the collection of hypothecated funds through the tax system.

ABOUT THE AUTHOR

Alison Wolf (Baroness Wolf of Dulwich) is the Sir Roy Griffiths Professor of Public Sector Management at King's College London, and Director of the International Centre for University Policy Research within the Policy Institute at King's. She sits in the House of Lords as a cross bench peer. She is also a member of the Social Market Foundation's Board.

Her research focuses on the interface between education and the labour market, with particular reference to higher education, and vocational education and training. In 2011 she completed the Wolf Review of Vocational Education for the Coalition government and its recommendations were accepted in full. She has also acted as an expert advisor to the House of Commons Select Committee on Education and Skills, and chairs the advisory board for the new government-sponsored Centre for Vocational Education Research. Within King's, she directs the MSc in Public Policy and Management, and is currently engaged in a research project investigating the drivers behind rising costs in higher education. She is also chair of governors for King's College London Mathematics School, a specialist school for gifted 16-18 year old mathematicians, which was established by King's and opened in 2014.

ABOUT THE SOCIAL MARKET FOUNDATION

The Social Market Foundation is a leading cross-party think tank, developing innovative ideas across a range of economic and social policy. The SMF's current research themes are: Productivity and Growth; Cost of Living; and, Public Service Reform. We champion policy ideas that marry markets with social justice and take a pro-market rather than free-market approach. Our work is characterised by the belief that governments have an important role to play in correcting market failures and that a sustainable market economy rests on social and political foundations that are widely regarded as fair. www.smf.co.uk

THE CASE FOR AN APPRENTICESHIP LEVY

1. THE CASE FOR THE APPRENTICESHIP

Apprenticeship is the oldest form of vocational training on the planet, by far. Informal apprenticeship, in which someone works alongside and for an adult, who instructs them, is how young people learn in all known human societies.

And formal apprenticeship is also very old, in the East as well as the West. It involves a contract between an employer and a young person: indeed that direct relationship between employer and apprentice is its defining characteristic. Both sides assume responsibilities. The apprentice is bound to work for their employer or 'master' for a fixed period of time, for little (or even no) pay, in return for instruction and learning a trade. Until very recently, it was common for a family to pay the employer to accept the young person.

These arrangements reflect the fact that an apprentice is acquiring something of value to her or him, and is not contributing to the business in the way that an experienced worker would. Academic studies of apprenticeship tend to confirm that these pay structures reflect workplace realities. Traditional apprentices (young people learning a new and skilled trade) tend to be a net drain on the employer until about half or two-thirds of the way through their apprenticeship, and a net benefit to the business thereafter.[1]

Discussion of 'human capital' formation is dominated by a conceptual framework first advanced by Gary Becker.[2] He fully recognised the importance of informal and on-the-job learning, as well as classroom-based instruction, although education policy-making tends to conflate 'human capital formation' with formal learning in specialist institutions. Modern apprenticeships, across the developed world, generally combine workplace learning with significant amounts of formal education.[3] The German 'Dual System', which is often cited as the gold standard, and the core of Germany's engineering and manufacturing success, is 'dual' because it has these two distinct elements – structured on-the-job learning with the employer but also 'off-the-job' training in a specialist institution, including a large component of general education.

Advocates of apprenticeship emphasise the effectiveness - and the efficiency - of this mixed pattern of learning, whether the trade in question is that of a bricklayer, a surgeon, or an engineering technician.[4] They are right to do so. Advocates also emphasise the close and immediate relationship between apprenticeship and labour market demands. They are right in this as well. Because apprenticeship has traditionally been something that employers developed and ran, it can not only respond to changing levels of demand across occupations, but also respond quickly to changes in the occupations themselves, and in the skills they demand.

As recently as the 1950s, almost every male in their mid-teens entered apprenticeships (the proportion was smaller for females).[5] These apprenticeships were, in structure, very similar to the 'traditional' apprentices that have been maintained in a good number of European countries, including Germany. They involved a contract between employer and apprentice, and employers would send apprentices on day-release or to evening classes at the local technical college. While these colleges received local authority support and subsidy, employers also paid, and expected to pay, for their apprentices' off-the-job training. This system has disintegrated, in large part because of deliberate government action.[6]

However, around the turn of the century, interest in apprenticeship revived. There was redoubled interest in the success of 'high apprenticeship' economies, such as Austria, Switzerland and, above all, Germany, because of their perceived success in retaining a vital manufacturing sector. There was mounting evidence that mainstream UK policy for vocational training was not raising skills or wages.[7] Conversely, in industries where it had survived, data showed that apprenticeship remained a highly positive and profitable route for young people to follow.[8] Employers, it appeared, valued their own and others' apprentices, because of the skills, work experience, and reliability associated with the whole process.

The result was a switch from neglect of apprenticeship to full cross-party support for increasing apprenticeship numbers. Unfortunately, the result was a set of policies that threatened to complete, through uncritical support of enrolment growth, the destruction that previous governments had set in motion. These policies started under New Labour, and accelerated in the early years of the Coalition. The 'apprenticeships' that were promoted by government, and paid for by the taxpayer, were very different indeed from traditional apprenticeships, and largely disconnected from labour market needs.

The failure of these policies can be seen very clearly in the apprenticeship statistics themselves, in the disconnect between government-supported programmes and labour market demand. They can be seen also in the steady decline of employer-supported training across the economy. They can also be seen, as discussed later, in the total failure of this country to develop a clear 'higher vocational' or technical pathway, leading from high-quality apprenticeships into advanced technical training at specialized institutions with close links to industry.

2. A VERY PARTIAL REFORM

In the last few years, there has been some significant movement within government towards recognising that recent policies have been misconceived. The recognition is partial: a series of scandals, studies and exposés which would have dominated front pages for weeks if they had involved schools or universities have barely registered with our political or media elites because they involve vocational education (see Box 1). Nonetheless, there is movement towards, and commitment to, reform.

Box 1: Private training contractors - The Elmfield case

A number of private companies have, over the past few years, secured contracts to deliver very large numbers of apprenticeships involving employed adults working for large companies. Among these was Elmfield, a training contractor whose boss also owned an 'awarding body' (i.e. a government-regulated organisation which certificated attainment and awarded qualifications).

The biggest of its contracts was with Morrisons, the supermarket chain: an FOI request in early 2011 revealed that in 2010/11, Elmfield registered 20,380 apprenticeship starts with Morrisons, 88% of whom were aged 25 or over: almost all of these people were already employed by Morrisons. Among the allegations which were made, and confirmed by a 2014 Skills Funding Agency (SFA) investigation, were that some thousands of employees were placed on apprenticeships without any clear agreement on their part. In 2013, shortly before publication of the report, following a highly critical Ofsted inspection, and SFA investigations, Elmfield ceased to receive contracts and went into receivership. Between 2009 and 2013, Elmfield received government contracts worth £64 million for its work with Morrisons.

Following a major report on apprenticeships under the Coalition government (the 'Richard Review', published in 2012), new approaches to apprenticeship are being developed under the 'Trailblazers' programme. Consortia of employers are developing new standards for apprenticeship: and there has been enthusiastic endorsement of the initiative by employer associations and companies.

The reform programme is an important and necessary step towards restoring traditional apprenticeship in this country. It recognises the need to restructure the organisation of apprenticeship and restore the old focus on an employer-apprentice relationship. It sets out to secure high standards of training, on and off the job, and substantial levels of skill acquisition. **It is not, however, deliverable on present terms, because there is simply no money with which to move from low quality to high quality. There is far too little money in the current budget to achieve this and likely to be still less in future years, given the government's fiscal policies. And the old funding equilibrium, involving large contributions from employers, lies in ruins.**

This paper proposes a solution in the form of a National Apprenticeship Fund. To understand why further government action on these lines is necessary, and why this is the right solution, we need first to understand some recent history. This history will make it clear why very far-reaching changes are needed not just in the structure of apprenticeships, but also in how they are funded.

3. HOW NOT TO RUN A SKILLS POLICY

In the 1950s, England (and the UK) had a large but also one of the most decentralised and unregulated apprenticeship systems in Europe. Today, everything to do with apprenticeship is decided by central government.

In England, apprenticeship is administered from the same Department - Business, Innovation and Skills (BIS) - as holds responsibility for adult skills generally. The budget for apprenticeship forms part of the overall adult skills budget; and the Department for Education (DfE) simply hands over a lump sum each year to cover apprenticeship expenditures for all apprentices under 19. Although apprenticeship is thought of by most people as something for young people, in recent years, as we will see, this has been less and less the case.

Our apprenticeships are largely run under an administrative and funding regime which has developed over the last 25 years, and shares key characteristics with all other non-university, government-funded 'adult skills' provision. The current system has helped form, and now perpetuates, the dysfunctional mismatch between what the government pays for and what the labour market demands. It has also created major vested interests.

The 'adult skills' system in England has two very unusual and possibly unique qualities. First, it operates a 'payment by results' system, known as outcomes-based funding. A large part of the funding received by the organisations providing formal adult education and training is contingent on learners completing their courses successfully and obtaining formal certification. Secondly the government (through its Skills Funding Agency) enters into large numbers of direct contracts with 'providers' (sic), whereby the latter undertake to organise a specific number of apprenticeships or qualification 'starts' within a given year, for which they will paid on an item-by-item basis.

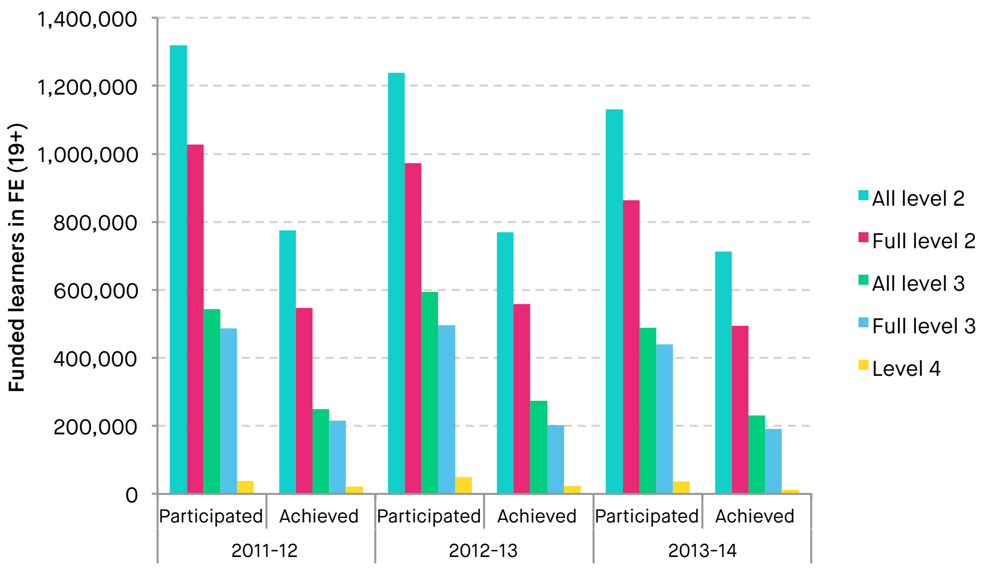
Recruiting people to take these qualifications or become apprentices is then the responsibility of the provider. That might be an FE college or might be an independent for profit or not-for-profit company. The key point is that government payments for apprenticeship go directly to the providers, not to employers.[9] Providers' income depends directly and more or less entirely on how far they deliver on their contract, both in terms of recruiting enough people for the specified activities, and in ensuring that, once enrolled, learners pass/succeed. Only then will the provider receive the substantial outcome-related part of the payment.

The incentives that this system creates are very clear. For any provider of education and training, long, difficult courses are very high-risk. Large numbers of short, easy ones are preferable because risks of failure are spread, and because they will be easier to pass anyway. The less progress that is demanded of a learner, the more confident 'providers' can be of receiving full outcomes-based payment.

In theory, central government might develop some ways of off-setting this 'drive to the bottom', by adding yet more central directives (e.g. on the need for a certain proportion of contracted apprenticeships to be at high levels). In practice the opposite is more likely. Time and again, ministers sign up to ambitious but general quantitative targets, as the current government has just done. This means that they too have a strong interest in encouraging rapid expansion of easy and cheap courses and awards.

Before turning to how this system has affected English apprenticeships, it is worth examining the effect across the whole 'adult skills' sector, in which this form of funding and contracting is virtually universal. Figure 1 shows patterns of participation and attainment by all 'adult' learners funded by the Skills Funding Agency (including apprentices) over the last three years. Qualifications in England are now allocated a 'level' as part of the national qualifications framework. Level 4 is the qualification for technicians operating at associate professional level; level 3 encompasses traditional craft qualifications as well as A levels and two-year BTEC Diplomas; and level 2 covers lower-level vocational awards, taken over one year, one-year BTEC awards, and GCSEs.[10]

Figure 1: Qualification patterns, England: all SFA-funded learners, 2011-14



Source: Further Education and Skills First Statistical Releases Skills Funding Agency (SFA) Department of Business Innovation and Skills.[11]

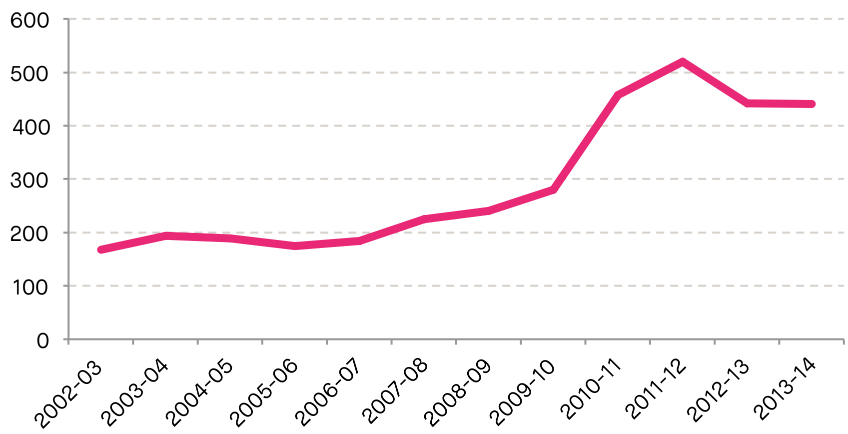
Figure 1 covers all qualifications at ***Level 2 and above***: in addition to these, very large numbers of qualifications were taken at levels below Level 2. Many of the latter would be very basic numeracy and literacy qualifications, often taken by people for whom English is a second language. Whether something is a 'full' qualification is a matter of size. Many of the qualifications taken in FE are very short and limited in scope and so are not classified as 'full'.

A number of things are clear from Figure 1. What we have in England is a 19+ adult system in which the overwhelming majority of qualifications are at low levels. Only a small proportion are 'full level 3', although the number of 'full level 3' qualifications that are actually achieved has held fairly constant at a time of decreasing enrolments. Meanwhile, the number of level 4 qualifications is so tiny, in proportional terms, as to be almost invisible in the figure.

We now turn to apprentices, all of whom take at least one, and often more than one, formal qualification as part of their programme. These programmes differ by whether they are for 'Intermediate', 'Advanced' or 'Higher' apprenticeships, which are level 2, 3 or 4+ respectively (the requirements for an apprenticeship, including qualification requirements, are laid out in an 'apprenticeship framework' of which there are currently over 200. They are due, under current reform plans, to be replaced by new employer-developed apprenticeship standards over the next few years).

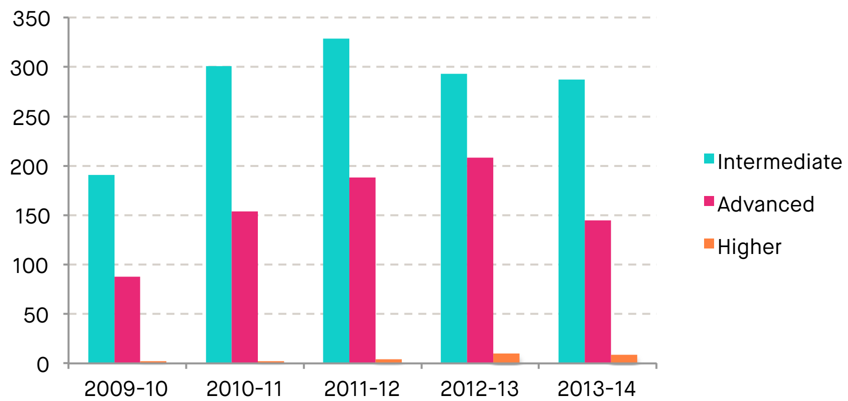
Figures 2 and 3 summarise recent trends in apprenticeship levels and numbers. As can be seen, numbers have grown very fast, but they are overwhelmingly at intermediate (level 2) level. This is in very marked contrast to countries such as Germany, Austria, Switzerland or Denmark where virtually all apprentices follow programmes which would be equivalent to our Advanced level. 'Higher Apprenticeships' figure large in ministerial announcements: but as Figure 3 shows, they are a tiny proportion of the whole: as indeed one might expect given that level 4 qualifications barely figure in the overall statistics. Again, this contrasts strongly with most other European countries, where a clear pathway into higher vocational training, from apprenticeship as well as from full-time occupational courses, is the norm.

Figure 2: Number of apprenticeship 'starts' England 2002-2014 (thousands)



Source: SFA First Statistical Returns

Figure 3: Level of apprenticeships England, 2009-2014 (thousands)



Source: SFA First Statistical Returns

The apprenticeship statistics make it clear how rapidly and effectively training providers responded to changes in policy and government procurement. Once politicians had decided that apprenticeships were wanted, apprenticeships - of some sort - were supplied. The distribution by level is, in these circumstances, very much in line with what funding incentives would lead one to expect. There was an emphasis on lower-level programmes, which are also short and cheap, and therefore make it much easier to increase absolute numbers.

In other countries, or in the past in this country, an apprenticeship would normally last for at least two years and three would be standard. By contrast, during the period of maximum growth, many English apprenticeships were completed in well under a year. In the last couple of years, the government has changed policy on very short apprenticeships, but in 2011 the Skills Funding Agency was even contracting with training providers to 'deliver' completed level 2 apprenticeships within 12 weeks.[12]

As Figures 4a, 4b and 4c illustrate, at the same time as numbers were expanded at high speed, apprenticeship also lost its core, traditional role as a form of training and socialisation for young people. More and more government-funded apprentices were much older. In principle, there is no reason why apprentices should all be young, although that is generally the case (and more or less universally so in many European countries). But a switch as rapid and large-scale as shown in Figure 4 is unlikely to be the result of long-term labour market or life-course changes: and nor was it. Over this period, more and more 'apprentices' were, in fact, people who were already employees, and often were quite experienced workers who became 'apprentices' in legal terms *while still retaining their original jobs* (see also Box 1 above).[13]

Figure 4a: Apprenticeship starts by age group %, England (2003-04)

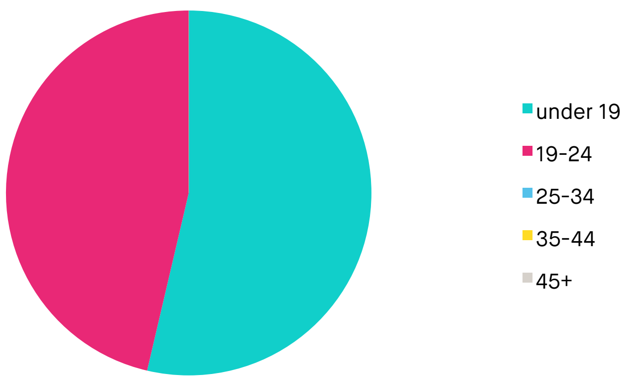


Figure 4b: Apprenticeship starts by age group %, England (2009-10)

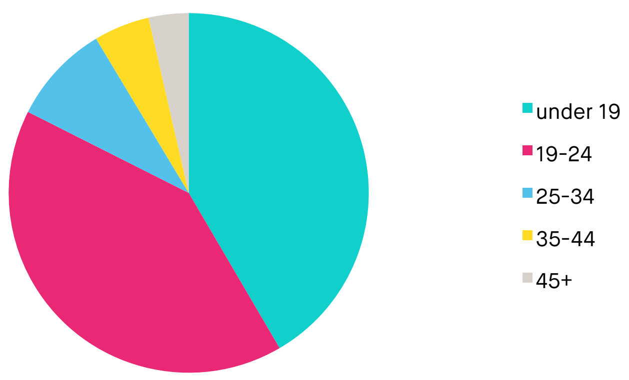
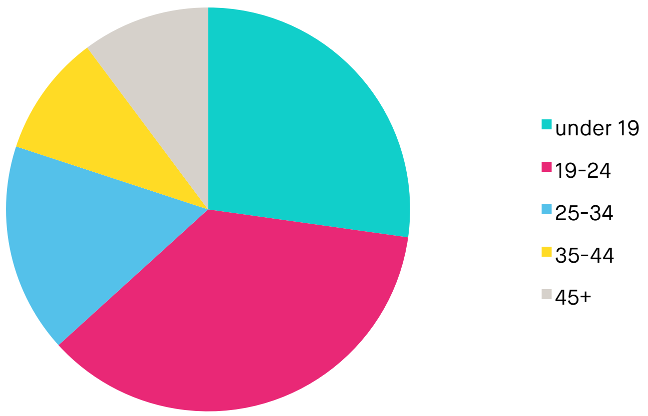


Figure 4c: Apprenticeship starts by age group %, England (2013-14)



Sources: SFA First Statistical Returns

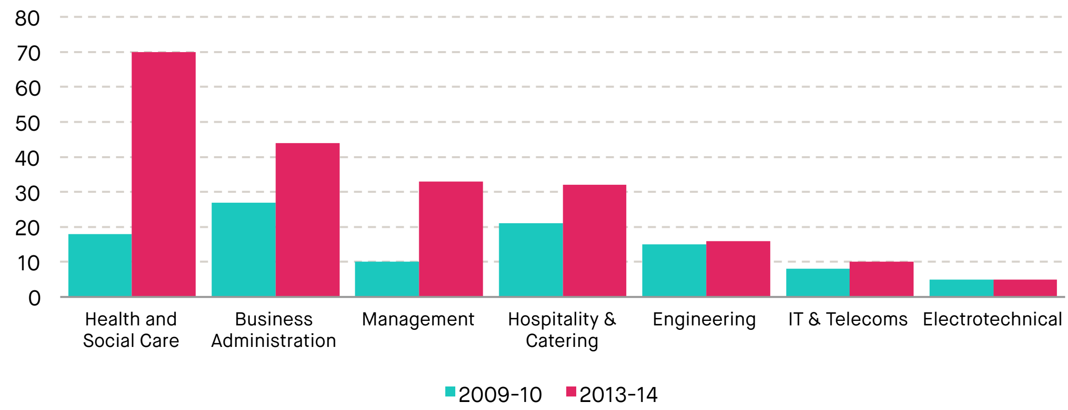
As we have seen, in England, apprenticeship has become something which government procures from training providers. All that the employer has to do is to employ the apprentice: if the apprentice is already employed, then even less is expected. Given governmental pressure to raise numbers fast, there was, as the then-head of a major providers' association told me back in 2011, no alternative: growth would have to come from employed adults. And, he added, some ministers at least were well aware of the facts.

In many of these cases, providers 'sell' apprenticeship to the employers by offering them either some additional training that will be free; or offering to provide, for free, training that the employer was already paying for. We do not have any estimates of the scale of deadweight funding in apprenticeship. However, as discussed further below, evaluation of a subsidy programme for employer training which pre-dated the big apprenticeship expansion found no significant net gain in employer training at all: pretty much the entire expenditure appeared to be deadweight, replacing prior expenditures.[14] More recently, an evaluation of employer involvement in higher apprenticeships also found that, in the occupational area studied, the apprenticeship payments largely displaced training costs that employers had already been incurring, and that the employers were recruited by providers on that basis.[15] Clearly, any apprenticeship subsidy is likely to be in part deadweight: but if government subsidies are not adding to total employer expenditure, their value is very unclear.

Just as current arrangements have driven English apprenticeship towards short programmes and registration of older participants, so they have also affected the sectors and occupations in which apprentice numbers grew. A very large proportion of apprenticeships are and have been in areas where costs are low, skill content is relatively low, and there is little or no evidence of skill shortages. For areas where there is strong evidence of skill shortages and demand, the opposite is true.

Figures 5 and 6 illustrate this. Figure 5 shows the number of people starting apprenticeships (at all levels) in three of the highest volume areas[16] and in three areas where there is strong evidence of shortages in technical and highly skilled occupations – engineering, IT/telecoms and electro-technical. At present, engineering companies are desperate for skilled workers, and construction companies can operate only because of large-scale immigration from other parts of the EU. More generally, wage data, and financial returns to qualifications and also degree subjects, underline the acute shortage of quantitative and technical skills in the English labour market.[17] As Figure 5 demonstrates, only a small proportion of apprentices are to be found in the key engineering and IT sectors: and if one looks only at Advanced and Higher apprenticeships (level 3 and 4+) they account for an even smaller proportion. Less than 5%, at this level, are in engineering or science-related occupations.

Figure 5: Apprenticeship starts, England: selected sectors, all levels combined (thousands)



Source: SFA First Statistical Release and Mirza-Davies (2015).[18]

Figure 6 summarises current spending across apprenticeship. Expenditure per apprentice is extremely low, especially compared to higher education. At present, universities receive around £9000 a year over three years for their government-supported 'home' undergraduates, and even after allowing for bursaries and fee waivers, have around £8,400 to spend per student per year on teaching activity. [19] In apprenticeship, by contrast, the average spend is far lower. If you divide the entire budget by the number of new 'starts' per year, the figure is currently under £2500: if you divide it by all current apprentices[20] it is only just over £1000 a year.

Such low averages can only be achieved by concentrating activity in low-cost apprenticeships. An Intermediate (Level 2) Business Administration apprentice attracts £3692 in funding from government; and an Intermediate Management (Level 2)brings in £3255. Level 2 Construction Civil Engineering is funded at £10,449 and level 3 Engineering Manufacture at £14,292. As one would expect, looking at these prices, and at our average send per apprentice, we currently have very large numbers of apprentices in the former two categories and very few in the latter two.

Figure 6: Spending per apprentice, England 2002-14 (figures unadjusted for inflation)

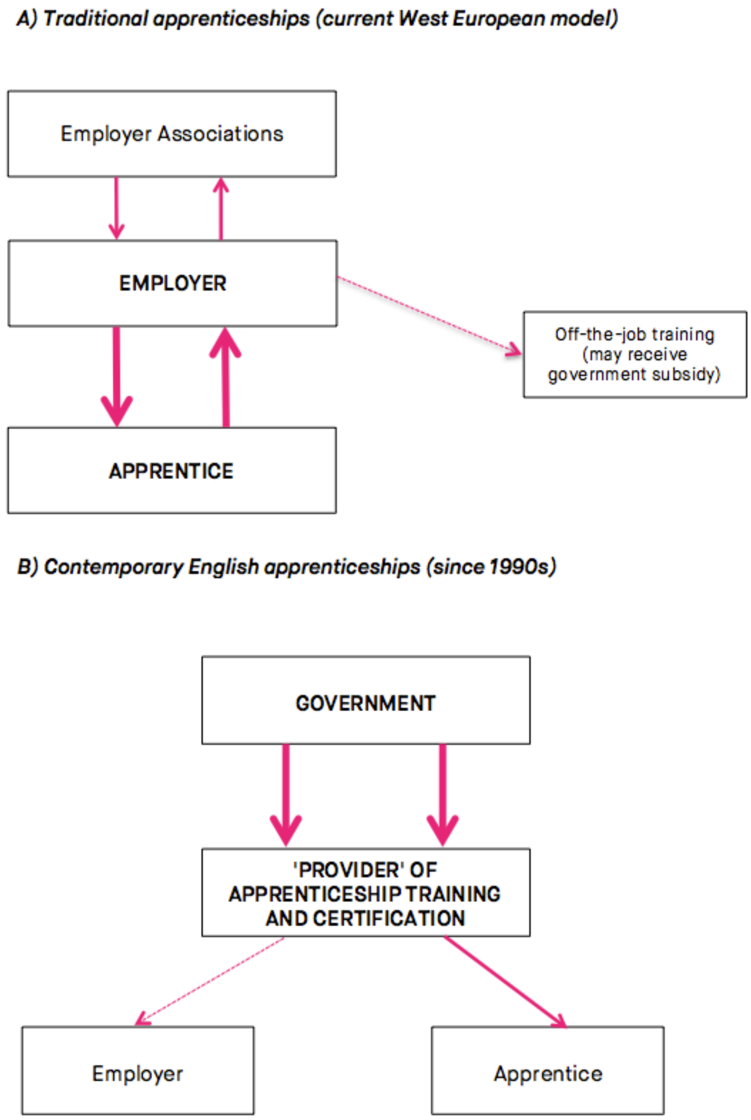
Source: SFA First Statistical Release and Mirza-Davies (2015)[21]

If English apprenticeship were responsive to the labour market, one would expect a very different pattern from that found in Figure 5. Conversely, a system geared to producing the maximum number of apprentices, within a fixed budget, is likely to produce exactly the pattern we see.

Figure 7 contrasts the core relationships at the heart of contemporary English apprenticeships with those that used to obtain here, and still do elsewhere in the world. Under traditional apprenticeship, demand is driven by employers' needs and decisions, and the employer's input is large and central. Employers take on apprentices because and when they need skilled labour and because, over the full term of an apprenticeship, they will acquire a skilled and valuable employee.

It is this type of apprenticeship which, time and again, shows high returns to both the apprentice and the employer. In contrast, the system created in England is driven not by the labour market, but by government funding allocations and by politicians' targets. If apprenticeship is going to become, once again, an effective and cost-effective part of the economy, it needs to return to the traditional model.

Figure 7: Comparison of Western European and English models of apprenticeship



4. WHAT NEEDS TO CHANGE?

Turning apprenticeship back into an institution which reflects labour market needs, develops young people's skills to a high level, and makes a genuine contribution to productivity, requires at least two major changes.

First, it requires a major shift in the whole way the system is organized, and a return to the employer-apprentice contract as central and defining. Otherwise, the characteristics which make apprenticeship valuable – close links with actual workplace activity and requirements, and sizeable investment of the employer's time and attention – will remain absent. The current reform programme, launched after the Richard Review, recognises this: but it remains both pilot and partial.

Second, and equally critical, apprenticeship needs more money. An apprenticeship system which is worth having will, on average, involve far higher spending per apprentice than under the dysfunctional and increasingly discredited one that recent UK governments constructed. We do not need tens of thousands more low-level apprentices in retail and business. We do need thousands more high-level ones in engineering, construction, and IT, all of which register acute skill shortages. If reforms do not produce that shift, we will know they have failed.

Sadly, current reforms do not, to date, address or solve the funding shortfalls. Government allocations fall way beyond what would be needed. Worse, they are combined with a new numbers pledge. The Conservative manifesto, as noted above, contained a pledge to create three million new apprenticeships in the next five years: a pledge repeated regularly since the election by the Prime Minister and others. This is a pledge to create 'starts' at a far higher rate than was achieved between 2010 and 2013 under our largely worthless and target-driven system. The manifesto also pledged to ensure that apprenticeships 'deliver the skills employers need'. But without additional funding, government agencies will doomed, once again, to start piling up numbers in all and any ways they can find, irrespective of either quality or need.

Box 2: Distribution of apprenticeships

If there is to be an increase in both the quality and labour-market relevance of apprenticeships, there will also have to be a shift in the distribution of apprenticeships between occupations and sectors. In 2013/14, of the 440,000-odd starts, just 10,000 were in IT and telecoms, and just 16,000 in engineering (all levels). As discussed earlier, these are expensive frameworks, and areas of clear skill shortage.

At present, the BIS apprenticeship budget is matched, or slightly more than matched, by a transfer of funds from DfE, even though 16-19 year olds are now a clear minority of apprenticeships. If we assume that this continues, and that real levels of funding are maintained, an increase in enrolments to 3 million over 5 years would give the government £2567 per apprentice to spend. How might one envisage funding shifting, in order to meet actual employer needs, as signalled by labour market shortages, and what would the impact be on enrolments?

The first point to be made is that almost nothing, even now, can be 'bought' for this amount. Using estimates from 2012/13, the only two sizeable frameworks which attract government support at below £3000 are Food and Drink level 2 (£2726) and Providing Financial Services level 2 (£1443).

Turning, instead, to the implications of shifting enrolments from large level 2 groups to level 3 'shortage' areas, what would be required? Three of the largest level 2 apprenticeships are Business and Administration (almost 35,000 starts in 2013, at £3692 each), Customer Service (over 25,000 at £3465) and 'Improving Organisational Performance' (nearly 17,000 starts at £5976 apiece).

(...)

(...)

You could double the 1,300 current level 3 plumbing and heating apprentices, by cutting out 4,000 business and administration apprentices. You could double the 3,400 current level 3 engineering manufacture apprentices if you cut customer service apprentices by 14,000 (or more than half). And you could double level 3 software and telecoms numbers by cutting the 'improving performance' group to about a third of its current size. This would probably make excellent sense in terms of skill development and demand. But just those three switches also 'lose' the government 18,000 apprenticeship starts a year, or 54,000 between now and 2020. So the second point to be made is that it is completely impossible to meet the target and improve quality and relevance on current funding levels.

Box 2 illustrates the sums of money that will be involved in moving to a higher-quality distribution of apprentices, and the complete inadequacy of current funding to achieve this. Current levels of 'adult' (19+) apprenticeship funding, namely £770 million for five years would provide £1283 per start, given the government target. The total will be higher than that, since money is paid into the budget by the Department for Education, to cover the cost of 16-18 year old apprentices. This group is currently well under half the total, but even if one made the most optimistic of assumptions, namely that DfE will spend as much as BIS, and double the budget, there will still only be £2567 per start. This would not even fund a level 2 retail apprenticeship of the current type, without any of the quality improvements to which the government is supposedly committed.

To repeat: a reformed and revived apprenticeship system needs more money. Without it, improvement is impossible. Where might that money come from?

In the past, it came from British employers themselves. But as we have seen, our current system demands little of employers, and involves them very little either. And as discussed further below, there is little reason to be optimistic that hundreds of thousands of employers will once again, immediately and voluntarily, sign up to large numbers of new apprenticeships which they largely pay for themselves. In many other countries, employers still make very major contributions to apprenticeship costs. However, they do so within societies where employers do not feel that, if they train, others will free ride. And they also do within the context of institutions, and of funding requirements, which maintain and strengthen that system.

Contemporary successful apprenticeship systems are under employer control – but they are also regulated. They involve sanctions as well as incentives to secure widespread employer participation. And these systems mandate payments by employers. We need to do the same.

5. THE CASE FOR AN APPRENTICESHIP FUND

Apprenticeship really is a good idea. Almost everyone agrees about this, and they are right. The government's advocacy of apprenticeship is perfectly well-founded. They are an excellent and cost-effective way of developing high-level skills, and raising economic productivity. And there is huge demand for them: not just at Rolls-Royce (where it is much harder to secure an apprenticeship than to enter a top Russell Group university), but across the economy and across all regions.

But to recapitulate, in order to rebuild a successful apprenticeship system in this country we need:

- More money
- Spending decisions controlled by employers

- Institutions that ensure that all employers are directly involved with the apprenticeship system, even if they do not currently employ an apprentice. This is the only way to avoid actual free riding or to overcome the perception that it is likely (which can be just as destructive in its effects).

The most straightforward and reliable way to achieve all these ends, in the current English environment, is to create a **national apprenticeship fund, financed by a small tax (levy) on payroll, with its own administrators.** Its key features would be the following:

1. Every employer would pay in.
2. Anyone who employed an apprentice would benefit by receiving far more than they contributed. Their apprentice's training would be subsidised by the fund at levels well in excess of their own individual contribution.
3. The employer of the apprentice would determine where that training took place, selecting from an approved list of institutions.[22] That means they would control where both their own money and the additional funds went.
4. The current policy of government contracts with 'training providers' to find and deliver 'completed' apprentices would cease. All apprenticeships would be funded through the apprenticeship fund, on the basis of an employer-apprentice contract.
5. Governments would also contribute to apprentice training costs, in order to cover the cost of the 'general education' part of the apprenticeship. It would do so by continuing to subsidise approved institutions which offer training. However, this money would reach institutions through a different funding stream, not through the fund.[23]
6. The apprenticeship fund would be not be treated as a part of general revenue. The student loan system provides a clear precedent for the collection of hypothecated funds through the tax system.

Such a fund is not the only possible way of securing nation-wide support for an apprenticeship system, although something similar is quite common in other countries. *All successful modern apprenticeship systems involve both funding streams over and above the direct payments made by employers for wages and training, and structures which tie employers into the apprenticeship system.* Powerful chambers of commerce, to which all local businesses must belong, are one way to secure participation (as in Germany). Regulated occupations, in which only formally accredited employees have a 'license to practice', are also effective in creating employer engagement, although obviously this operates only for the occupations concerned. [24] But there have to be structures, and even if they are technically 'voluntary', the incentives and sanctions involved have to be powerful enough to secure very high levels of involvement.

And there has to be money to run the system. For that reason, a large number of modern developed economies have established levies and taxes (see Box 3). Some (e.g. Denmark, France) are earmarked specifically for apprenticeship alone, some (e.g. Austria) have additional functions. But all involve annual, hypothecated payments.

Box 3: Examples of apprenticeship taxes in other countries

A very large number of developed countries operate a training levy (at least 62 according to the World Bank) and/or an apprenticeship tax, while an additional group have a compulsory fund into which employers pay, and which can be used for a number of purposes including apprenticeship subsidy.

In France, for example, there is an apprenticeship tax (at a higher rate for larger companies), which can be paid directly to an educational institution if the firm wishes. Denmark also has a hypothecated apprenticeship tax paid by all companies. Austria has a fund which is used for a variety of purposes, including support for employment/wages during recessions and apprenticeship subsidies when supply falls short of demand. In all countries where there is a well-established apprenticeship system, the state also contributes to the formal education and 'off the job' element, typically provided in specialist vocational institutions.

In contrast, the English institutions that supported apprenticeship, both formal and informal, have been destroyed. There is no supporting infrastructure of incentives and sanctions to encourage employers to take on apprentices (though plenty of incentives for training providers to set themselves up). In a few specific industries, employer-led apprenticeship has continued because of the demands of the business: most of these (e.g. aerospace engineering) also and non-coincidentally have strong industry associations. Elsewhere, as we have seen, 'apprenticeship' is a term applied in contemporary English policy to something that bears only a passing resemblance to what most people understand the term to mean.

An apprenticeship fund is a simple, practical way to kick-start the revival of English apprenticeship now: to transform incentives, to restore the employer-apprentice contract as the core of the system, and the mechanism which triggers payments, and to fund apprenticeship growth and improvement. The arguments in its favour, as an immediate policy initiative, are:

1. **Money.** Without new funds, talk of improving apprenticeship quality and also having 3 million new apprenticeships by 2020 is self-deception at best. As we have seen, on current BIS and DfE budgets it simply cannot be done. Current suggestions to close the funding gap are (a) move money into BIS following a presumed but unsecured fall in current benefit payments (b) a visa levy (introduced in the context of reiterated commitments to reduce immigration further year on year); and (c) money from LIBOR fines levied on the banking industry. None of this is remotely serious.

In any case, to rebuild apprenticeship as a robust and credible institution for the long-term, it needs a secure long-term funding source, not bits of cash patched together by fiddling with departmental budgets. A separate hypothecated fund is the only way to do this.

2. We need a national, simple and long-term policy change which forces **all employers to take note and take action**. Traditional apprenticeships grew slowly over centuries. They are not going to re-emerge at speed just because politicians call for a 'change in culture'. Large companies and government departments will sign 'apprenticeship pledges' when summoned to do so by Downing Street: but soon, the caravan moves on.

We will only get large numbers of good apprenticeships, year after year, if they become, once again, something which all employers - and especially small and medium companies – see as a natural part of their business. We cannot create, overnight, the powers and influence of the German Chambers of Commerce, or the comprehensive network of trade and professional associations that underpins Swiss apprenticeships. However, we can create compulsory contributions to an apprenticeship fund – as they do in Denmark or in France. (See Box 3) And we should.

One might ask why, if apprenticeships are so good for the economy, we, and other countries, need to intervene at all? Why won't employers recognize their own self-interest without national, government-imposed policies? The answer, as so often, is risk and uncertainty. Something may be very good, and predictably good, for the nation, as a whole. That doesn't mean it is automatically good for you, as an individual employer, now.

The underlying dynamics are clear enough. An employer needs to maintain or expand a skilled workforce. Taking on a 'traditional' apprentice involves committing resources both within the workplace, through intensive on-the-job training, and by paying, in part or wholly, for more formal instruction outside the workplace: at a college or a dedicated company training facility. The pay-back comes towards the end of an apprentice's time served, when she or he has become a valuable and productive worker, but is still paid at apprenticeship rates.

Over the workforce as a whole, such investments will be hugely productive. But for an individual employer there is a real risk that they may end up with an apprentice who is not very good, or who leaves before the end. A large company spreads the risks, with many apprentices. A small employer has just the one. Moreover, as noted above, in an environment where traditional apprenticeship has collapsed, poaching and free riding become far more of a risk than they were here in the past, or are in high-apprenticeship countries today. We have created a 'collective action' problem[25] by destroying the old system, and it is not going to solve itself under current circumstances.

It is important to emphasise that such an intervention will not (and is not designed or intended to) make all employers take on an apprentice, every year. Sometimes that will make sense to an employer; sometimes it won't. The purpose is to shift incentives, substantially, at the margin. And a levy-funded apprenticeship fund, from which employers of apprentices benefit directly, can do just that.

6. SUBSIDISE APPRENTICESHIP NOT TRAINING IN GENERAL

The discussion so far has focused entirely on apprenticeship. This is partly because the current system is so dysfunctional, and partly because the government has made public commitments which, if funded properly, could be highly positive both economically and socially, and if not, could compound the waste of recent years, and do nothing for skill development. However, apprenticeship, while vital, is only one part of a country's workforce development system. Would it not make sense to have a general training fund, rather than one dedicated to apprenticeship alone?

The answer is no. It would not be a good idea.

Such a policy would make it very unlikely that the fund would succeed in re-establishing widespread, good quality traditional apprenticeship. The economic arguments for re-creating apprenticeship are very strong: the evidence that it makes individual employees far more productive and successful is consistent, and well founded. The evidence on other forms of training is far more ambiguous (see Box 4).

Box 4: Employer-based skills training

There is a very large body of work on in-firm training, on the impact of labour market imperfections on employer motivation to train, and the impact of training of staff turnover. Overall, this indicates how impossible it is to arrive at any simple conclusions about the importance of 'training' for productivity or profitability, since companies' propensity to train is so closely bound up with other factors (sector, growth prospects and company expansion, macro-economic climate, government subsidies and regulatory requirements, etc). There is generally a positive relationship between training activity and growth but the direction of causality is extremely unclear. The same is true of the finding that companies that train also tend to have lower staff turnover: both are likely to reflect the same (positive) underlying factors. The tiny number of studies which actually allow one to examine the 'before and after' effects of training provide mixed findings. Sometimes the training seems to increase productivity and sometimes it does not! One of the best reviews of the issues remains Rita Asplund, *The Provision and Effects of Company Training* (Research Institute of the Finnish Economy, Helsinki 2004).

Worse, if you allow employers to claim against the fund for all forms of training, then not only is the deadweight component of the policy likely to be huge, but there is also no reason for them to shift from their current expenditure pattern. This, as we know, favours the well-paid, and already skilled. Recent survey figures (discussed further below) confirm a long-standing phenomenon, and one which is in no way specifically English: on the contrary. Studies of business expenditure show that companies and organisations spend more money on training for their senior and highly paid employees than on less-skilled and junior staff. [26] But this is not something that governments should be encouraging and promoting.

To understand what is likely to happen, we can take the example of accountancy, one of the occupational areas where a number of 'higher apprenticeships' have recently been launched.[27] These are for higher-level accounting technicians: - key members of staff whose training was being paid for already in many companies. A move to apprenticeships has been triggered partly by subsidies offered, but also by the belief that a formal apprenticeship, with broader content, will attract better candidates for the posts.

However, these same companies also spend a very large amount of money on graduate training. If the government establishes a general training fund, with company contributions matched from the fund at a high ratio, any half-competent accounting practice is going to ask for funds to match its graduate training expenditures. Rather than increasing total expenditure on training, and also shifting it towards technician and craft skills, where we currently have too little training taking place for all the reasons discussed above, a general-purpose training fund is therefore likely to be characterized by near-total deadweight. [28]

A specific apprenticeship fund also avoids the very heavy bureaucratic and administrative costs that are inevitable if the government wishes to ensure clear accountability. If firms wish to claim for general training, they will, inevitably, have to provide and maintain detailed paperwork, which is far easier to do for large companies with formal training departments, and very difficult for small employers: as France, for example, has found, in this situation large companies benefit, and small and medium employers are the net contributors.[29] More generally, this approach tends to result in large centralised agencies, with their own staff and interests. At worse, one could re-create the bureaucratic burden and 'Great Training Robbery' criticisms which destroyed the UK's Industrial Training Boards back in the 1970s.[30]

If you have a policy objective – to increase good apprenticeships – then the policy advice is clear. You need also to have a clear, directed policy tool. An apprenticeship fund meets that requirement. It can and should be a single national body entirely concerned with collection and payment of funds for apprenticeships and only for apprenticeships, on the model of the Student Loan Company or the Charities Aid Foundation.[31]

7. TRAINING IN A PARALLEL UNIVERSE?

Research shows that 'proper' apprenticeships, in England as well as elsewhere, are associated with strong wage returns to those who complete them, confirming their value as a way of developing productive, valued skills. However, the comparison, in the English case, has normally been with other forms of formal accreditation: with people who gained formal certificates outside the workplace, or who left school with few academic awards. This evidence underlies the government's new-found enthusiasm for apprenticeship, and has been cited above as providing strong support for apprenticeship as an institution.

However, there is one possible scenario which would undermine the argument that we need government action to revive 'proper' apprenticeships. As explained above, for the vast majority of employers in England today, apprenticeship is not something which is organically related to their recruitment and or training and development activities. It is an add-on, into which they are invited by providers who assure them that it will not require any effort or paperwork, but will bring some free training.

It is thus perfectly conceivable that companies have simply side-stepped the current apprenticeship system while nonetheless maintaining a full-blown, responsive and unsubsidised training regime, outside apprenticeship and outside public sector activity more generally. The accountancy firms, described above, could be seen as an example: they were paying for training at technician level, well in advance of entering into any apprenticeship agreements, and might be an example of how widespread, in-depth training is being undertaken across the economy.

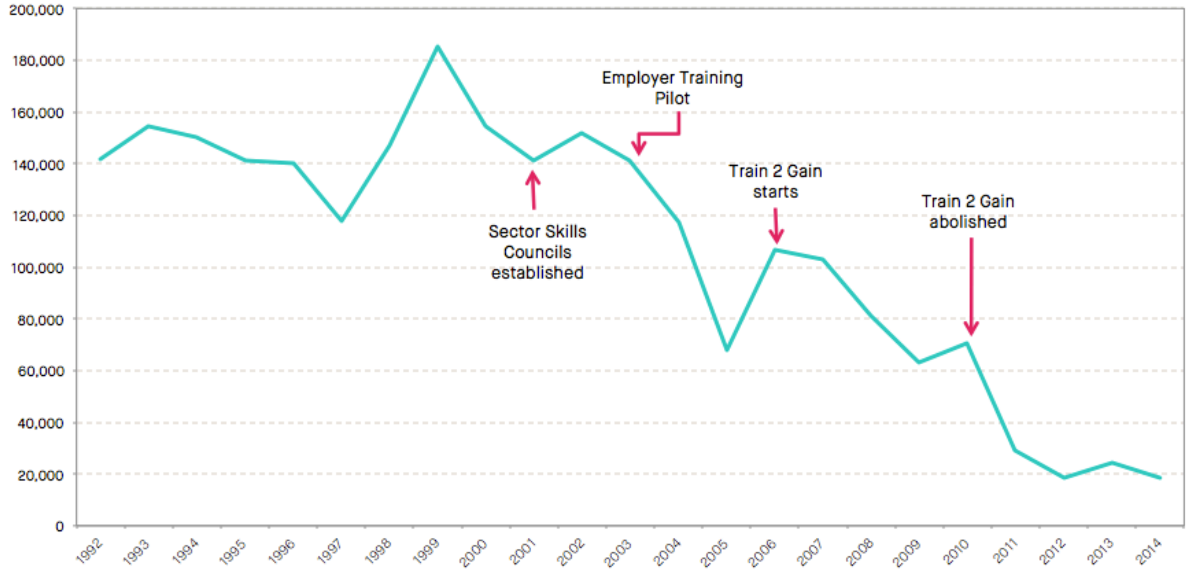
It is possible and conceivable. But it is not what is happening. In fact, the opposite appears to be the case. *The period during which English governments developed and expanded their current skill and apprenticeship policies is also the period in which we can track a steady decline in employers' training expenditure and activity.*

There are a number of relevant data sources, and while detailed numbers vary, the general picture is entirely consistent. The total amount (volume) of employer training has dropped and the average length of training activities has fallen greatly. Labour Force Survey data provides the most detailed, long-term picture, stretching back to the early 1990s, and shows a steady decline in the overall volume of training.[32] Overall, between 1995 and 2010, the volume of training offered to British employees fell by about 46% for men and 37% for women.

A great deal of workplace training is short-term, takes place within the workplace – often actually in people's everyday work setting - and is either highly specific to the employer or highly generic and often statutory (for example, updating of health and safety or safeguarding training). However, if someone is undertaking a skilled apprenticeship, or involved in some other form of intensive and serious skills training or upgrading, one would expect there to be substantial periods of time spent away from their workplace. Providing such training was the original function of our technical colleges (now largely transformed into 'general' FE Colleges), and in the continuing 'traditional' apprenticeship systems operated by our European partners, attendance at training centres and colleges is a major and central part of the apprenticeship programme. Formal out-of-the-office learning is also integral to the CPD (Continuing Professional Development) activities which are increasingly often demanded of professionals (e.g. doctors, accountants) as a condition of maintaining their registration and/or license to practice.

For this reason, the single best indicator available of employers' support for serious skill development is probably one collected by the LFS: the number of employees reporting that they worked 'fewer hours than normal' in a given week because they attended 'off-the-workplace' training (Note that all apprentices are also employees, the 17 year olds as well as the 47 year olds). It is one we can track over long periods, and with large samples, because it is one of the core LFS questions. And Figure 8 shows how dramatic and cumulative the decline in such training has been.

Figure 8: Numbers of employees attending training outside their workplace: Britain 1992-2014[33]



Sources: Green et al 2013

As Figure 8 shows, training outside the workplace peaked in 1999. This was immediately before the government started to shift expenditure towards new funding streams which were supposedly of direct relevance and assistance to employers. The major push for growth in apprenticeship numbers came from 2008 onwards (see figure 2 above). But before that, two programmes were launched which followed an extremely similar model to later adult apprenticeships, though without the title. The first was 'Employer Training Pilots' (ETPs) and its successor was 'Train to Gain' (T2G). Both provided money for the training of current employees.

These programmes were organized and funded in much the same way as current 'adult apprenticeships'. Money flowed to providers, who then recruited employers, and, through them, 'learners'. Qualification targets were increasingly important, not just for the training providers, but also within government, where spending departments had formal agreements to deliver numbers, monitored by Treasury and the Number 10 Delivery Unit.

The underlying theory, as formulated by the Treasury, was that employers' expenditure was likely to be 'sub-optimal' (too low) because of fears that their trained employees would be poached by others; and that there was therefore a case for additional and direct subsidy for training of existing employees. Accountability concerns, and a belief that government approved vocational qualifications would ensure quality, led to a centrally managed programme rather than additional subsidies paid directly to employers. Providers were given contracts to find and train and certificate a set number of employees, and duly set about doing so. [34]

Employer Training Pilots were formally evaluated by the IFS, which (as noted earlier) found that virtually all the funding appeared simply to displace employers' existing expenditures.[35] This evaluation did nothing to dissuade the Treasury and BIS from implementing Train to Gain, although it may explain why there was no full government-funded evaluation of the programme. However, as noted above, by 2010, it was increasingly accepted inside as well as outside government that the initiative was not raising workplace skills, and it was ended, with the money shifted into adult apprenticeships.

Looking at Figure 8, it is tempting to conclude that government subsidy actually reduced total employer activity, and that with every pound offered by government, employers cut their own expenditures by far more than they received. This is obviously extremely unlikely, and many other things were happening in the external environment which affected employer behaviour. What is clear, however, is that hyperactive policy-making in the skills area, and a shift of funding away from educational institutions towards enterprises and employers, failed dismally to achieve its desired effects. Employers did not increase their training levels and recent productivity trends hardly suggest that the decreased volumes were nonetheless proving more efficient at skill formation than earlier, higher volumes had been.

8. INCENTIVES NOT ORDERS?

As the previous pages make clear, modern English apprenticeship bears little resemblance to traditional apprenticeship. It has become, instead, a stream of government expenditure driven by a highly distinctive set of financial incentives. The latter's dysfunctional effects have been reinforced by central numerical targets set by politicians who (for the most part) do not understand what is going on, 'believe' in apprenticeship, and wish to promote and expand it. The result is a system where the overlaps between apprenticeship expenditures, labour market requirements, and genuine skill formation are largely fortuitous.

On the other hand, the system at present does not prevent employers from taking on apprentices for genuine, skill-shortage reasons. And we know that in some leading, high-skill companies – companies like Rolls-Royce, Siemens, BAE, Network Rail – apprenticeships were offered, at substantial cost to the companies, even during the years of greatest central government hostility, because they were so central to current and future production. Equally, current arrangements certainly do not prevent them from training new (or indeed old) employees at their own expense, or topping up what is spent on apprentices by providers.

Centrally planned initiatives have not, as we have seen, borne fruit. The proposed move to an Apprenticeship Fund would place decisions in employers' hands, while using governmental power to ensure that funds were available to support apprenticeship. But is this level of universality and coercion really necessary? Even if other countries have such arrangements, would it not be better to move to positive incentives to train, targeted to those who wish to do so?

The evidence, again, is firmly against such an option. The precipitous decline in training volumes discussed above, and exemplified in Figure 8, took place in the face of large-scale direct subsidies from government, *but also in spite of generous existing tax incentives to train.* It would therefore be extremely foolish to depend on employers voluntarily returning to historic (or even year 2000) levels of expenditure without a new, clear and universal instrument, such as an apprenticeship fund.

Our tax system has, since 1988, offered companies generous tax deductions for training expenditure. Specifically:

1. Businesses liable for corporation tax can claim corporation tax relief for the training costs of their employees.
2. Businesses operated by self-employed people can claim relief on income tax payments for the training costs of their employees.
3. Self-employed people can claim relief on income tax for their own business training.

Most estimates agree that less than half the companies in the UK pay corporation tax. However, this still means that around a million businesses, as well as the self-employed, can claim this relief.

HMRC does not collate or estimate figures on the total amount claimed in this way.[36] However, two in-depth estimates have been made of the likely totals. The first was carried out for the 2009 Inquiry into the Future of Lifelong Learning, and arrived at a total figure of £5.7 billion in relief. More recently a detailed estimate was commissioned by unionlearn from Howard Reed (Landman Economics).[37] Largely because of changes in income and corporation tax rates, the more recent estimate is slightly lower. As detailed in Table 1, Reed estimates that, in 2009-10, a total of £4.86 billion was made available to employers and the self-employed in the form of tax relief on training. £3.38 billion of that was corporation tax relief: i.e. a form of subsidy to employers designed to reduce the cost to them of training and incentivise them to train.

Table 1: Estimated value of tax relief for training in 2009-10

Element of relief	**Estimated value (£bn)**
Corporation tax	
Relief on direct training costs	1.73
Relief for wages of employees undertaking training	1.66
Total	*3.38*
Income tax relief for self-employed (of which relief for training and wages of employees undertaking training is estimated at **£0.60 billion**)	1.47
Total	***4.86***

Source: Unionlearn 2011

Since 2010 the main rate of corporation tax has been cut further (from 28% to 20%) which will have reduced the value of that estimate by two-sevenths (28.6%). Allowing for that, and for inflation, an updating of Reed's estimates of tax relief levels gives us an estimated current subsidy of **£2.64 billion** in corporation tax relief for training at 2015 prices. (Updating the estimate for employees of businesses run by self-employed people would add a further **£0.67 billion.**) So overall, the government is underwriting substantial levels of expenditure,[38] and has done for a good many years, through tax relief as well as workplace programmes. And, as we saw above, it has got less and less training for its money.

It would make sense to amend or simply abolish this tax break, thus enabling the government to increase subsidies for high quality general education components of apprenticeship programmes, especially at higher levels, where there are so strikingly few courses, or qualifications, on offer.

Given employer behavior, it is certainly hard to see current tax incentives as in any way effective, let alone see them as a good policy instrument with to increase training activity. But how does one account for this retreat from training, in an environment where the labour market indicates that there are indeed genuine skill shortages?

Some of the factors are almost certainly external. Employers have been able to hire more and more graduates from a rapidly expanding and government-funded higher education system; while the expansion of the EU, and the high unemployment rates that have obtained in many EU countries, especially since 2008, mean that we can also hire many of the highly-trained products of other people's apprenticeship systems. But what also seems to have happened is that this country has destroyed the self-reinforcing mechanisms that underlie any functioning apprenticeship system, thereby depriving employers of institutional support from other employers, and making many of them highly nervous about the 'poaching' of people whom they train. It has also convinced employers that training is something which governments will (and should) pay for. Only further but different government action can reverse that situation within the next few years.

9. CONCLUSION: WHAT NEEDS TO BE DONE

Re-establishing a high quality apprenticeship system could do an enormous amount for the productivity of the UK economy. It would also re-open routes to the top for many young people who would prefer not to enter, or cannot gain access to high-quality, high-status university places.

Not so long ago many of the top positions in British industry were held by ex-apprentices, and in other countries they often still are. In Austria, for example, a higher proportion of managers entered their jobs from a vocational education background as from an academic one: and even among professionals, over a quarter were educated through apprenticeship and/or tertiary-level vocational colleges.[39] Vocational institutions of this sort are much more easily and successfully linked to the local job market, and much more genuinely employer-facing than universities can ever be. A revitalised apprenticeship system can and should feed into revitalized technical institutions at tertiary level.

So the current government is right to support apprenticeship reform, but is failing to will the means. Additional funding will have to be found. Without it, we will be stuck with the same dysfunctional system described in these pages.

Established and successful apprenticeship systems are good because of employer contributions and involvement, and they are both good and stable because and to the extent that everyone is involved. The decision to take on an apprentice looks very different if other firms are doing the same than it does if other people are not. As we have seen, most apprentices pay for themselves by the end of their apprenticeship, but of course a few do not. And as a small employer, the risk will look a lot lower, the more confident you are that other people are helping to spread it by taking on their own young workers.

So how do we restore quality and stability and increase participation? Not by giving speeches, or appealing to employers' consciences: the problem is not one of values and attitudes, and the solution is not to 'change the culture'. British employers used to take on apprentices in exactly the same way as their European counterparts, and we have plenty of highly successful firms. There is no hard evidence that our companies are somehow uniquely short-sighted or have some intrinsic antipathy to a skilled, competent workforce. What we need is to recreate, at speed, a self-reinforcing mechanism which originally developed organically and slowly. This will take action by the state, which helped to destroy it.

Briefly, we are only going to recreate the critical mass of involvement that we need if government forces companies to participate in some way. The most efficient way, because it avoids a central planning apparatus, is by requiring cash contributions. Those cash contributions need to go into a separate fund: they must not be subject to Treasury claw-backs or included in annual interdepartmental budget negotiations. That fund must be clearly tied to apprenticeship and under employer control, because it needs to sit at the heart of institutional re-growth.

With such a fund, we have a strong chance of developing a reformed and excellent apprenticeship system. But without such a mechanism, politicians singing apprenticeship's praises will find themselves whistling in the wind.

ENDNOTES

[1] See Dietmar Harhoff and Thomas Kane 1994 ***Financing Apprenticeship Training*** Office of Educational Research and Improvement, U S Department of Education; R Euwals and R Winkelmann 2001 ***Why do firms train?*** CEPR Discussion Paper 2990 Centre for Economic Policy Research; P. Ryan, U. Backes-Gellner, S Teuber and K Wagner 2013 "Apprentice pay in Britain, Germany and Switzerland: institutions, market forces and market power *European Journal of Industrial Relations* 19.3 201-20.

[2] G S Becker 1993 ***Human Capital*** University of Chicago Press

[3] A Fuller & L Unwin eds 2013 ***Contemporary Apprenticeship: International Perspectives on an Evolving Model of Learning*** Routledge

[4] They also emphasise its motivational benefits for the many young people who dislike, or are not successful in formal academic settings.

[5] D Hutchison 1986 ***Drop-out from Apprenticeship*** Working Paper 14, National Child Development Study User Support Group, City University.

[6] During the 1980s, there was a concerted effort to replace apprenticeships with government-directed training schemes and 'competence-based' centrally-designed qualifications (National Vocational Qualifications or NVQs). Apprenticeships were seen as inefficient, available only to those with correct contacts, and creating barriers to entry into occupations. An account of the policy's rationale, by one of its most important architects, can be found in G Jessup 1991 ***Outcomes: NVQs and the Emerging Model of Education and Training***

[7] The research is summarized in A Wolf 2009 ***An Adult Approach to Further Education*** Institute of Economic Affairs

[8] Empirical studies showed that while an individual who obtained a particular vocational qualification outside apprenticeship was likely to show little or no wage gain or promotion as a result, the same qualification taken as part of an apprenticeship was associated with significant wage and career benefits. See especially S. A. McIntosh, 2007, ***A cost-benefit analysis of apprenticeships and other vocational qualifications*** Dept for Education and Skills Research Report 834

[9] A few very large employers are or have been 'providers' in their own right, but they then receive money as ***providers***, not as employers.

[10] Foundation degrees and HNDs are level 5, bachelors degrees are level 6

[11] http://data.gov.uk/dataset/further-education-and-skills-statistical-first-release

[12] (http://feweek.co.uk/2011/06/09/concern-at-12-week-apprenticeships/) 12-week apprenticeships were extreme, but the average length of an English apprenticeship has been little more than a year over much of the recent period.

[13] A. Fuller, P Leonard, L Unwin and G Davey 2015 Does apprenticeship work for adults? Nuffield Foundation

[14] L Abramovsky et al 2005 ***The impact of the employer training pilots on the take-up of training among employers and employees***. Research Report 694 Institute for Fiscal Studies

[15] L Gambin and T Hogarth 2014 ***Employer Investment in Higher Apprenticeships in Accounting*** Department for Business, Innovation and Skills Research Paper 175 and presentation on the study at Sheffield University InstEAD conference on Educational Choices in Further and Higher Education, June 2015.

[16] England currently operates with over 200 very detailed apprenticeship frameworks, each with its own funding rates. However, these can then be grouped by sector: Figure 5 uses sectoral data.

[17] R. de Vries 2014 ***Earning by Degrees*** (Sutton Trust) summarises up-to-date evidence for the UK: other countries show similar patterns. See also Engineering UK 2015 ***The State of Engineering***

[18] J Mirza-Davies 2015 ***Apprenticeship Statistics: England*** House of Commons Library Briefing Paper 06113

[19] Higher Education Commission 2014 ***Too Good to Fail: the financial sustainability of higher education in England***

[20] Since current apprenticeships are not 'time served' some of the total group will be on Intermediate level apprenticeships which they complete in a year, some on higher level ones which normally take more than a

year, and some will be on Intermediate apprenticeships but taking more than a year to complete. For further details see A Wolf 2015 ***Heading for the Precipice: can further and higher education funding policies be sustained?*** The Policy Institute, King's College London

[21] J Mirza-Davies 2015 ***Apprenticeship Statistics: England*** House of Commons Library Briefing Paper 06113

[22] The approval process would involve both the employer associations responsible for a particular apprenticeship and inspectors. This arrangement is very similar to the one used in France.

[23] There are well-developed arguments about who can be expected, under what circumstances, to pay for education and training that is highly general and transferable. In the case of apprenticeships for young people, it is generally accepted that there should be a 'general education' component and that this should be paid for by the state, not by an individual employer. See eg A Wolf 2008 ***An Adult Approach to Further Education*** op cit

[24] The mediaeval guilds, from which modern apprenticeship all over Europe derives, only ever involved a fraction of a largely agricultural workforce. Licenses to practice also have their obvious downsides: see Appendix.

[25] A 'collective action' problem is one where many people would benefit from something happening/being done, but the cost to any one individual of undertaking it makes it unlikely that someone will take it in hand. See Mancur Olson 1971 ***The Logic of Collective Action***

[26] See eg B van Wanrooy et al 2013 ***The 2011 Workplace Employment Relations Study: First Findings*** Department for Business, Innovation and Skills;

[27] See Gambin op cit for data on accountancy firms' hiring and training practices and costs.

[28] In a perfectly conceivable but worst-case scenario, a general training fund might reduce the number of entrants via a technician route. Part of the shift to graduate entry at the expense of technicians, across the economy, reflects the high levels of public spending on graduates, and low spending on sub-graduate options. (See Wolf 2015 op cit). This almost certainly shifts employers' hiring behaviour, since some of the education graduates have received will be of relevance even if much of it is not. A general training fund, matching all employer expenditures, would increase yet further the relative attractions of graduate hires.

[29]C Greenhalgh, 2002, 'Does An Employer Training Levy Work?' ***Fiscal Studies*** 23.2 223-262; Bertin, F., Podevin, G. and Verdier, E. (1991), 'Continuing vocational training in France: review and perspectives', ***Training and Employment***, no. 2, Winter.

[30] See A Wolf (2002) ***Does Education Matter? Myths about education and economic growth*** especially pp 100-106

[31] See A Wolf 2010 ***How to shift power to learners: encouraging FE dynamism, replacing centralised procurement*** (Learning & Skills Network) for a discussion of how an institution based on the CAF could administer payments and subsidies for individuals. The same logic applies for companies.

[32] See especially F Green, A Felstead, D Gallie, H Inanc and N Jewson 2013 ***What Has Been Happening to the Training of Workers in Britain?*** LLAKES Research Paper 43 (LLAKES, UCL-Institute of Education). The LFS, and the European Social Survey show drops in the overall participation rate. The Skills and Employment Survey, the Employer Skills Survey, the Workplace Employment Relations Survey and the Continual Vocational Training Survey do not show drops in the participation rates. However, all individual surveys (including the British Household Panel Survey) show a large fall in total volume: only short episodes (less than 2 days) show any increases since the late 1990s.

[33] Sources: Green et al 2013; https://www.gov.uk/government/publications/training-away-from-the-workplace-and-reduced-hours-january-1995-to-december-2014

[34] ETPs were more generous than T2G, providing wage subsidies to cover training periods as well as free training by external providers. T2G only covered training.

[35] Abramovsky et al op cit

[36] HC Hansard 4 November 2008 col 310W

[37] NIACE (2009) ***Learning through life: the report of the Inquiry into the Future of Lifelong Learning***; H Reed for Unionlearn (2011) ***Tax Relief on Training: investigating the options for reform.*** London: TUC

[38] To put the sum in perspective, compare it with the entire 2015-16 'adult skills and employer ownership' budget, which, as announced by BIS in February 2015, amounts to £2.09 billion.

[39] Statistik Austria, Mikrozensus 2013, Arbeitskrafterhebung, ibw