

THE MUESLI EFFECT: A DIVIDED CONSTRUCTION SECTOR

A REPORT TO THE GATSBY FOUNDATION

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DISCLAIMER

The views and opinions expressed in this report are those of the author and do not necessarily state or reflect those of the Gatsby Charitable Foundation.

EXECUTIVE SUMMARY

The muesli effect is the reason that all the large pieces in a fresh packet of muesli are at the top and the smaller flakes are at the bottom. The smaller pieces sink to the bottom of the pack, buoying the larger pieces and taking them to the top. This paper suggests that this is happening in the field of construction skills. Larger companies are buoyed by small and micro businesses and they rise to the top. Once at the top they benefit from the apprenticeship system. The small and micro businesses face significant challenges and often fall behind, giving them fewer opportunities to engage with and benefit from the apprenticeship system.

This report draws on existing literature and also on interviews carried out with stakeholders in the construction industry, including both large and micro employers, their employees and apprentices.

KEY FINDINGS

- The UK construction industry is facing a severe skills shortage. Recent reports indicate a substantial number of job vacancies in the sector and projections suggest the demand for workers is likely to increase in the coming years. The most severe shortages at the intermediate level are for skilled tradespeople, equipment operators, supervisors and site managers. The shortage of skilled tradespeople, known collectively as 'the trades', includes plumbers, electricians and general builders.
- The new government's housing policy, which aims to boost home construction, is likely to increase demand for trades and site-based occupations. The rising demand for skilled workers in these areas presents a complex set of challenges and opportunities for the construction sector.
- Micro businesses (a business with one to nine employees) represent 94.7% of the construction industry.¹ Of these, fewer than 2% employ apprentices.²
- Micro businesses spend 3.5 times more per trainee compared to large employers.³ This is because large organisations can leverage their spending power to secure discounts and they can build long-term relationships with training providers.
- Large companies can influence the design and implementation of apprenticeship policy. The perspective of micro employers is often overlooked in apprenticeship policy discussions, which results in the creation of apprenticeships that do not suit smaller businesses. This exacerbates the skills shortage.
- The Construction Industry Training Board (CITB) operates a levy-grant system designed to support training, development and apprenticeships in the construction sector. Registered construction businesses contribute to the system through a mandatory levy, which is then redistributed as grants to support workforce development. However, micro employers are not always able to make full use of these grants because there is limited awareness of the support available and the administrative processes are complex.

¹ Different data are available for the percentage of the construction industry that are micro businesses based on slightly different criteria. For this report we use the Office for National Statistics (ONS) data. ONS (released 25 September 2024) *Dataset – UK business: activity, size and location*.

² This calculation has been based on the number of micro companies claiming Construction Industry Training Board (CITB) support and the total number of micro companies based on ONS estimates.

³ Clayton, N. and Evans, S. (July 2021) *Learning at work: Employer investment in skills*. Learning and Work Institute.

- There are a number of operational challenges faced by micro employers:
 - Logistics. The requirement for workers to travel to sites and the lack of transport options for many younger apprentices causes logistical issues for supervisors.
 - Work patterns. These vary considerably and the workforce can reconfigure on a project-by-project basis. The working practices of micro employers do not align well with apprenticeships, which have required working hours. This makes the supervision of trainees difficult.
 - Business uncertainty. Issues such as building material shortages, seasonal work and cash flow inconsistencies significantly impact the operations of micro employers and prevent longer-term commitment to apprenticeships.
 - Capacity constraints. Micro employers do not have the capacity to go beyond the business at hand. This makes it harder for them to deal with the administration involved in taking on an apprentice and to provide the necessary training and support of the apprentice.
- Under the Social Value Act,⁴ construction work that is funded by national and local government can require successful contractors to invest in apprenticeships. However, these requirements do not percolate down the supply chain where the trades skills gap exists.
- Methods used to measure social value are too simplistic and do not consider all the necessary factors. They also fail to encourage the right attitude to training, for example they focus on apprenticeship starts rather than completions. The current approach to social value does not support the upskilling of the entire supply chain, including the micro employers further down that chain, or even specify that apprenticeships should be in the construction trades.

RECOMMENDATIONS

The recommendations focus on improving the engagement of micro employers with apprenticeships and shaking up the muesli pack to implement improvements to the apprenticeship system and create a more equitable distribution of apprenticeship benefits.

DEVELOP COMMUNITY FACILITATORS

Construction community facilitators could be tasked with building relationships with micro employers and creating targeted local solutions to skills shortages by using apprentices. Community facilitators would:

- educate micro employers about apprenticeship benefits and available programmes
- assist with paperwork and regulatory requirements
- connect micro employers to form collaborative apprenticeship networks
- champion apprenticeships within the community to raise awareness
- create opportunities for apprentices to be mentored and to join local support networks
- monitor programmes to ensure they meet standards and provide value
- identify local skills gaps to tailor apprenticeship programmes accordingly
- support micro employers to structure effective apprenticeship programmes

⁴ GOV.UK (updated March 2021) *Guidance: Social Value Act information and resources*.

There should be opportunities for experienced tradespeople to become community facilitators. Community facilitators should receive professional development opportunities to ensure they are up to date with the latest industry trends, policy changes and best practices in apprenticeship management.

CREATE A MICRO EMPLOYER ENGAGEMENT STRATEGY

Government, through Skills England, should work with flexi-job apprenticeship agencies, mayoral combined authorities, local government, housing associations, a broad representation of employer representative bodies and a steering group of representative micro employers to create a dedicated engagement strategy for construction micro employers. The micro employer steering group should include underrepresented trades to draw on the knowledge of this diverse group.

The strategy should develop localised support. This may involve setting up regional hubs or nominating regional community facilitators to connect with local communities and professional networks. Skills England should fund proactive outreach to micro employers as part of the strategy.

ENGAGE CONSTRUCTION MICRO EMPLOYERS IN APPRENTICESHIPS

More than 80% of micro employers do not use the apprenticeship levy. To ensure better engagement by micro employers, Skills England should include construction trades micro employers and the micro employer steering group in the development and review of apprenticeship standards by providing incentives that support their attendance at meetings.

A broad incentive structure should be developed that includes honorariums, but may also include covering travel costs, providing additional compensation for time spent away from the business, or a financial incentive that actively contributes to the development of apprenticeship standards.

To empower micro employers to contribute to apprenticeship standards they should also be offered training in standards development.

DEVELOP NEW APPRENTICESHIP STANDARDS

The development of new apprenticeship standards should actively involve micro employers at every stage. A co-development model should be established, where micro employers collaborate directly with Skills England and training providers to develop apprenticeship standards.

MAKE APPRENTICESHIPS MORE FLEXIBLE

To accommodate the needs of micro employers, it is essential to create new opportunities for flexibility in the way apprenticeships are delivered. Skills England should explore flexi-job apprenticeships,⁵ combining modules from different trades and the potential for accelerated apprenticeships on completion of the appropriate T-level.

5 GOV.UK (updated 31 March 2025) *Guidance: Flexi-job apprenticeships using an approved agency.*

DEVELOP TRAINING PLANS

Skills England should coordinate with the CITB, micro employers and the micro employer steering group to develop exemplar training plans for the delivery of apprenticeship standards. These plans should set out the responsibilities of the provider and the employer and provide a mechanism for the micro employer to be sure that their apprentice is being taught the right skills at the time they are needed by the business.

EXPAND APPRENTICESHIP LEARNING

Adapt training plans to cover issues having a seismic impact on the sector, such as the Building Safety Act 2022, retrofit, off-site construction and sustainability, so that necessary changes to working practices can be better implemented.

MEASURE PROGRESS

Skills England should work with the CITB to measure the number of micro employers engaging with apprenticeships. This should be used as a key indicator to measure the effectiveness of their engagement with micro employers.

The metrics should also include apprenticeship completion rates, apprenticeship retention and the career progression of apprentices.

MEASURE SOCIAL VALUE

Changes need to be made to procurement processes linked to social value obligations to improve skills development in construction trades in the lower tiers of the supply chain. For example, requiring contractors to ensure their micro employer supply chain trains a certain number of apprentices determined by the contract value. Measuring the social value impact should include the number of completed apprenticeships rather than just the number of hours completed.

Contractors should be required to show a workforce skills development strategy that demonstrates commitment to upskilling their entire supply chain and ensuring that the measured outcomes align with the objectives of the strategy.

DEVELOP RESEARCH RELATIONSHIPS

Academic institutions developing relationships with micro employers in the construction trades would unlock an untapped avenue of productivity improvements for the sector. Construction micro businesses having access to the same sort of innovation support available to larger companies would not only increase productivity, but it would also free them from having to be so concerned with their immediate business, enabling them to focus more on their skills pipeline and employ apprentices. This requires targeted support by government departments that work extensively with construction trades and should be facilitated by Innovate UK.⁶

⁶ "Innovate UK, part of UK Research and Innovation, is the UK's innovation agency. Our mission is to help companies to grow through their development and commercialisation of new products, processes and services, supported by an outstanding innovation ecosystem that is agile, inclusive and easy to navigate". UK Research and Innovation (accessed 2025) [Innovate UK](#).

INTRODUCTION

The construction sector and the skilled tradespeople that build and maintain our homes, workplaces and infrastructure are central to the nation's wellbeing and development. The new government not only needs to build new houses it also needs to improve the state of the UK's existing housing stock, which is generally acknowledged to be in poor condition.

The trades are critical to construction, whether for multimillion pound infrastructure projects or small home improvements. But there is a skills shortage on the UK construction site. Nearly 95% of the construction sector are micro employers,⁷ and they are more likely than larger companies to recruit from their personal networks rather than through online job advertisements. These recruitment behaviours and the sheer number of micro businesses make it difficult to measure the size of the skills shortage. Job vacancies at the start of 2024 stood at 36,000. Another 251,500 extra workers will be needed to meet UK construction output by 2028.⁸ Historically this shortage was backfilled by migrant workers, but this is increasingly unsustainable despite the continued requirement for large projects to employ skilled labour wherever they can find it. Projections suggest there will be a slight reduction in the number of off-site roles by 2028, such as technical staff and engineers, while the need for trades and site-based operatives will likely increase by 6%.⁹

This paper suggests that what is happening in the construction sector, is analogous to the muesli effect (see the [Appendix](#) for a fuller explanation). The muesli effect explains why all the large pieces in a fresh packet of muesli are at the top and the smaller flakes are at the bottom. The smaller pieces sink to the bottom of the pack, buoying the larger pieces and taking them to the top. In the field of construction skills, the larger companies are buoyed by small and micro businesses and they rise to the top, where they can benefit fully from the apprenticeship system. Small and micro businesses face significant challenges and often fall behind, giving them fewer opportunities to engage with and benefit from the apprenticeship system.

However, because micro businesses make up such a large proportion of the construction sector, they provide the single greatest opportunity to increase the uptake of apprenticeships – a way to avert the skills crisis in construction. So it should be of deep concern that on average only 2% of micro businesses employ apprentices.¹⁰

The pernicious shortage of skilled tradespeople and an ageing workforce make it paramount to ensure that we are developing the tradespeople of the future. This report looks at why micro businesses in construction trades do not take on apprentices and makes recommendations that, if followed, would enable change.

7 ONS (released 25 September 2024) *Dataset – UK business: activity, size and location*.

8 CITB (2024) *Focusing on the skills construction needs*.

9 CITB (2024) *Focusing on the skills construction needs*.

10 This calculation has been based on the number of micro companies claiming CITB support and the total number of micro companies based on ONS estimates.

METHODOLOGY

OVERVIEW

The findings in this report come from an extensive literature review and semi-structured interviews we carried out with stakeholders in the construction industry, including both large and micro employers, their employees and apprentices. To better understand the context in which micro businesses operate, we held 53 interviews with small and micro business owners that identified as construction tradespeople. We focused on businesses that were not employing apprentices at the time of our interview. By targeting interviews in this way, we hope to shed light on the barriers faced by this critical but often overlooked section of the construction industry. There is little research focusing on the needs of micro businesses in construction trades and on their uptake of apprentices, which makes this study important.

We explored the findings from these interviews with experts and key stakeholders involved in construction trade apprenticeships. These experts included charities, regional bodies responsible for implementing apprenticeships and government capital programmes.

DIVERSITY

For this research, the tradespeople we interviewed were primarily white men, although we did interview some women, non-binary people and people from ethnic minority backgrounds. We interviewed neurodiverse individuals and individuals from nearly every region of England and from a wide range of trades. Our interviewees were a representative sample of the members of this subsector.

INTERVIEWEES

Alongside the interviews with small and micro construction businesses, we also spoke to:

- Kingfisher plc. (owners of Screwfix)
- Screwfix
- Screwfix apprentice of the year candidates
- Centre for Alternative Technology
- Professor Stuart Green of Reading University
- the charities Building Heroes and Barnardo's Building Hope Academy (delivering training and classed as independent training providers by the Construction Industry Training Board (CITB))
- the association of employment and learning providers (AELP)
- Simon Ashworth, the deputy chief executive and director of policy for AELP
- industry experts
- flexi-job apprenticeship agencies
- industry bodies (such as the Northern Counties Builders Federation)
- PlanBEE
- regional government
- West Midlands Combined Authority

UNDERSTANDING THE CONSTRUCTION TRADES

We define construction trades as those professions that use specialised skills to build buildings and infrastructure and, in line with the CITB, we define a micro employer as a company with one to nine employees.

Table 1 shows data from the Office for National Statistics (ONS) on the numbers employed in construction firms by employment size bands and compares this to the rest of the economy.¹¹

Table 1: Number of enterprises by employment size band

	Construction	Construction (%)	Other sectors	Other sectors (%)
Micro (0-9)	359,900	94.7	2,428,740	89.1
Small (10-49)	17,955	4.7	241,165	8.9
Medium (50-249)	2,040	0.5	43,580	1.6
Large (250+)	300	0.1	11,285	0.4
Total	380,195	100	2,724,770	100

The ONS arrives at these figures using registrations for VAT and/or PAYE. However, it should be noted that many of the tradespeople we interviewed were not registered for VAT or PAYE because of the size and/or turnover of their business. Also, research suggests that up to 50% of the construction sector operates as part of the shadow economy, specifically in the construction trades, and so may not be included in the data above.^{12 13} If this is a true reflection of the situation in construction trades, then the actual figure for the number of micro employers must be much larger and, according to 2018 research conducted by Clear Books,¹⁴ could be closer to a million.

POSITIVES OF BEING A MICRO EMPLOYER OR WORKING FOR A MICRO BUSINESS

SENSE OF PRIDE

All our interviewees felt that the quality of their work was the key differentiator between them and other businesses and they took a huge amount of pride in that work, in their abilities and in what they had achieved by setting up for themselves. They also had faith that they would continue to achieve great things. They were, almost without exception, extremely positive about the industry, their profession and its benefits. So, the interviewees were hopeful for the future, even if they often had a bleak perspective when it came to their immediate circumstances, as we will see in the [Factors Stopping Micro Employers Taking on Apprentices](#) section.

¹¹ ONS (released 25 September 2024) *Dataset – UK business: activity, size and location*.

¹² Schneider, F. and Williams, C.C. (2013) *The shadow economy*.

¹³ Wilson, C. (2006) *Evaluating the magnitude of the shadow economy: A direct survey approach*. *Journal of Economic Studies* (33) pp.369-385.

¹⁴ The Construction Index (3 January 2018) *UK construction's small businesses now number more than a million*.

A GREAT JOB – BENEFITS OF WORKING IN THE CONSTRUCTION TRADES

Our interviewees were quick to point out the benefits of a job in construction trades. The key benefits included being their own boss, flexibility in working hours, having a good income and having the satisfaction of a job well done. This is backed up by the Institute for Employment Studies whose construction trade interviewees also “described construction as well paid compared to other opportunities available to them and offered clear routes for pay progression”.¹⁵

REASONS FOR MICRO EMPLOYERS TO TAKE ON APPRENTICES

The interviewees also told us the reasons they wanted to take on apprentices.

GIVING BACK

The sense of pride felt by the interviewees motivated them to train the next generation of tradespeople. All our interviewees felt a sense of duty – that training the next generation was their responsibility.

COMMUNITY STANDING

Taking on an apprentice was seen to enhance their standing within the community as well as providing a valuable service to it.

CHEAP LABOUR

Ultimately, with tight margins, uncertainty in their pipelines and a work life balance in need of rebalancing, all our interviewees felt that a positive aspect of taking on an apprentice would be the lower costs to them. This was on the understanding that apprentices would be paid below the minimum wage, demonstrating the interviewees unfamiliarity with the apprenticeship system.

FACTORS STOPPING MICRO EMPLOYERS TAKING ON APPRENTICES

Given this, why do so few micro employers take on apprentices? To answer, it is important to understand the features of their working lives. There are a number of inhibiting factors which characterise the construction sector that need to be considered. Not all of these factors are addressed in the recommendations, but they provide a fuller picture of the working lives of micro employers, so they are important to consider.

LOGISTICS

In sectors like manufacturing, small businesses tend to operate in a static location – their own premises. However, those working in construction micro businesses must, by the nature of the work, travel extensively. This has implications for recruitment in general but can be especially difficult for young people who cannot drive due to their age or the lack of a qualification or a car. Certainly in rural areas, they would struggle to be able to use public transport to get to site. It would fall to the employer to take them to and from site. This loss of time has knock-on effects for productivity. The return leg is an even bigger problem because apprentices have fixed hours, meaning the employer would have to leave the site early to make sure the apprentice does not work longer than the regulated eight hours.

¹⁵ Alexander, K., Roberts, C.P., Hooley, T., Hirsh, W., Lanceley, L., Mason, B., Osborne, E. and Pollard, E. (April 2024) *Research into careers in construction*. Institute for Employment Studies.

WORKING PRACTICES

All of those we interviewed undertook domestic projects where the client was often present. This creates extra pressure for micro businesses to manage time effectively and to maintain high professional standards, which can be more challenging when having to train an apprentice. They felt that having to take time correcting mistakes made by an apprentice would not help them get client recommendations or make a profit. These high levels of scrutiny alongside tight timeframes mean micro businesses have to have flexible working practices that are not in line with how apprenticeships are currently configured.

FINDING AND DELIVERING WORK

Taking on staff is a huge consideration for any micro business. It can potentially double the headcount but not the productivity because of the overheads associated with inducting and managing new staff, from taxes, management, providing them with tools and transporting them to site. Interviewees said that the uncertainty over future contracts meant they had to win as much work as possible but this then created significant issues with their capacity to deliver, which they acknowledged could be alleviated by having support. The micro businesses interviewed invariably dealt with the issues of finding and then delivering work through developing a strong professional network, where they could either subcontract or directly employ those they had already worked with and who they trusted. However, this creates a situation where the workforce is reconfigured on a project-by-project basis, with little or no long-term vision or stability, both of which are needed to effectively train apprentices.

THE DEMAND VS. THE SUPPLY

Despite being nominally of one specific trade or another, our interviewees were of necessity turning their hand to a number of different construction tasks not directly related to that trade. As a result, many of them wanted to employ well-rounded apprentices who would have a general understanding of site safety, quality and general construction tasks. They rely on their professional network to take on work they do not have the capacity or the skills to deliver. This is a reciprocal relationship that creates a strong sense of community in the local area: when one trades person is short of work, their colleagues help them out and they return the favour. This goes some way to alleviating the shocks of operating a micro business where a constant pipeline is essential but is difficult to fit around their working lives.

TIME CONSTRAINTS

The job of managing the business, which includes admin, sales, customer care, design tasks etc., is an extra job on top of what they consider to be their real job of doing the work and using their skills. The demands of delivering their work and winning new work while also managing the administrative aspects means they are too busy to do anything that would improve the business. The resulting constant time pressures, long hours, stress and difficulty maintaining a work-life balance left many feeling genuine distress. As many of the interviewees only got time to work on their business in the evenings and on weekends, those with families found this particularly challenging. Adding in the time needed to take on an apprentice and ensure their training was felt to be too much extra work.

FINANCIAL CONCERNS

All the micro employers we interviewed had uncertain finances. Most of our interviewees felt that because of their company's size they were unable to take on large jobs or jobs for large contractors, which reduced their potential earnings. They felt hemmed in because larger clients often included onerous terms that they feared would cause their business to fail, so they had to deal with the challenge of pricing competitively without selling themselves short.

Chasing invoices and cash flow were also a key concern, and they relied on their professional network to vet larger clients who were cited as the biggest culprits of late payment. This uncertainty in income is compounded by rises in the price of materials, which, given the prevalence of fixed-price contracts, could mean the difference between making a loss or a profit on a job. The result is that every activity must be weighed against its immediate cost and paying an extra wage bill to an apprentice was seen as imprudent when they needed to keep their costs down.

UNPREDICTABILITY

Our interviewees' workloads are seldom eight hours a day, five days a week, and unforeseen circumstances can prevent any work getting done at all. Work can be seasonal and is impacted by bad weather, illness (their own or someone on site), project delays or family circumstances. There are major ongoing issues with building material shortages, which frequently delay many of our interviewees' projects. Also, because they often work on multiple projects simultaneously, any delay on one project has a knock-on effect to the rest of their work. These circumstances have a minor impact on a larger company but can cause a micro business to freeze in its tracks because it stops them being able to earn. This makes them extremely vulnerable to market changes.

They felt that apprentices having preordained time with the tradesperson does not account for the realities of their profession. They were reluctant to pay an apprentice who was not working, because they themselves would not be paid. Taken alongside their uncertain pipeline of work, making a commitment to employ an apprentice for a fixed number of hours every week was often untenable.

TOOLS

Tools are needed for all the construction trades and many require specialist tools and personal protective equipment. The micro employers we interviewed believed that larger firms asked their apprentices to buy their own tools, whereas the micro employers would not ask this of their own apprentices and would instead buy tools for them. The logistical and storage implications of needing tools, although not overwhelming, add another complexity to having an apprentice.

CULTURE

The culture in construction in the UK has been described as "macho".¹⁶ Our neurodiverse, female and non-binary interviewees were the ones to point this out and said they felt the culture could be toxic, not just for them, but for everyone working on site. They were quick to add that this was by no means universal, but that it was a regular occurrence. As one interviewee said:

Everyone gets it, so there's a sort of equality there, but whatever's different about you, that's what you'll get the piss taken out of you for.

¹⁶ Alexander, K., Roberts, C.P., Hooley, T., Hirsh, W., Lanceley, L., Mason, B., Osborne, E. and Pollard, E. (April 2024) *Research into careers in construction*. Institute for Employment Studies.

There is a clear link between the lack of gender diversity and the toxic culture on site. We spoke to charitable organisations who said the gender balance was improving, however these representations invariably came from organisations that work with predominantly office-based workers, such as architects, engineers and surveyors. The charities we spoke to who worked with construction trades painted a very different picture and were under no illusions that the culture on site was tough.

VIEWS ABOUT YOUNG PEOPLE

Discussions with micro business owners about apprentices frequently shifted towards the owners' general views of young people. Much of the reluctance to engage with apprenticeships is linked to their views of young people. Their attitude originates from the traditional roles in construction trades, where young men would perform physically demanding tasks that older craftsmen were unable to handle. In contrast to this, interviewees often referenced young people's fixation on technology and their lack of real-world experience. Despite these concerns, many were eager to encourage young people, believing that a strong work ethic would benefit them greatly and enable them to succeed:

You have to be neat, you have to be clean, you have to be on time; it's about changing their mindset. That's the main thing: you are here to work to improve yourself so you can have a car, a house, a family, and not worry about bills because you are being trained the right way in something you enjoy.

NON-COMPLETION OF APPRENTICESHIPS

Non-completion is a cultural issue in apprenticeships that employers need greater support with. Statistics from the think tank EDSK reveal that 47% of apprentices in construction are dropping out.¹⁷ In contrast, university dropout rates are consistently below 10%, which shows there is significant room for improvement. Germany, and other countries that have higher rates of apprenticeship completions, increase pay each year in line with apprentices' growing experience. This is an example of a more effective approach to apprenticeship engagement.¹⁸

FUTURE COMPETITION

Interviewees were also concerned about the commitment of apprentices, suggesting that they could leave at any time which would impact on the delivery of projects. But, perhaps more crucially, the majority of interviewees felt that apprentices had no incentive to stay working for them after their apprenticeship, as several of them themselves had left the companies they had been trained by to set up in direct competition.

ASYMMETRY OF LEARNING

Apprentices from small construction firms talked about living in two worlds. In one world they discover national occupational standards – the book version – then they enter the on-site world where they find themselves doing something completely unrelated, leapfrogging the curriculum or being taught, with unfettered disdain by their seniors the 'right way' to do a job. So there is an asymmetry of learning.

¹⁷ Richmond, T. and Regan, E. (2022) *No train, no gain*. EDSK.

¹⁸ National Institute of Standards and Technology (December 2022) *5 things we learned in Germany*. Manufacturing Innovation Blog.

MENTAL HEALTH

The interviewees said they felt pulled in different directions all the time and this meant they were unable to fulfil their many responsibilities. Many interviewees said they never switched off from work, “It never ends”, “I don’t stop” and that there are “not enough hours in the day”. This creates an environment where the need for an apprentice is high, but circumstances are not immediately conducive to them being able to offer a learning environment. There is a clear need for support, for both the employer and the apprentice alike, to create a welcome learning environment and healthy culture.¹⁹

¹⁹ CITB (December 2022) *Construction apprenticeships. Challenges. Opportunities. Support. A CITB analysis.*

THE APPRENTICESHIP SYSTEM

The *Apprenticeships and Social Mobility* report by the Social Mobility Commission found that:

*Apprenticeships are one of the few indisputably effective tools of social mobility currently available to the government ... Yet the system is not working. Instead, the main beneficiaries of apprenticeships are the people who do not need them.*²⁰

This barrier to social mobility impacts on the whole construction sector:

*It used to be common for people to come up through the tools into construction management, but that's rare now.*²¹

This lack of a route for former construction site workers to move into larger contracting bodies has led to “the increasing invisibility of the manual worker in the discourse”.²² Given this change in how well apprenticeships support tradespeople, how did the micro businesses we interviewed view apprenticeships?

MICRO EMPLOYERS AND THE APPRENTICESHIP SYSTEM

The general view from both those that had and those that had not had experience of the apprenticeship system was that it involved a lot of paperwork and phone calls. Those with a previous positive experience credited this to individual staff members in colleges and said that when that individual left, their engagement with the official system ended. Some interviewees stated that there were no appropriate training providers or colleges nearby.

UNDERSTANDING OF HOW APPRENTICESHIPS WORK

Different interviewees had different understandings of how apprenticeships worked, and they gave very different accounts of the responsibilities, accountabilities, costs and timeframes they believed were expected of the employer. For example:

- Interviewees did not have a clear understanding of how long an apprenticeship would last and many thought they only took a few months. In reality, for some of the trades, an apprenticeship can take more than three years.
- There were differing views of the costs that they thought were part of the process. Responses varied from it being completely free to it costing £2,000 a year per apprentice. However, all interviewees said completing applications and forms came at a cost, either implicitly or explicitly.
- Interviewees were uncertain about the eligibility criteria for businesses that wanted to take on an apprentice. There were a range of views from “surely everyone!” was eligible, to needing a turnover of £200,000 and paying into the CITB levy.
- They were unaware that to take on an apprentice they needed to register with the CITB, be up to date with their levy returns and follow the grants scheme policy.

²⁰ Social Mobility Commission (2020) *Apprenticeships and social mobility: Fulfilling potential*.

²¹ Ness, K. (2009) *Not just about bricks: The invisible building worker*. In: Dainty, A.R.J. (ed.) *Proceedings 25th Annual ARCOM Conference*. 7-9 September 2009, Nottingham, UK. Association of Researchers in Construction Management. Vol. 1, pp.645-54.

²² Ness, K. (2009) *Not just about bricks: The invisible building worker*. In: Dainty, A.R.J. (ed.) *Proceedings 25th Annual ARCOM Conference*. 7-9 September 2009, Nottingham, UK. Association of Researchers in Construction Management. Vol. 1, pp.645-54.

Although there was some understanding, no one person had a full understanding of the current system. This reflects the many changes that apprenticeship schemes have undergone since many of our interviewees themselves joined the industry up to 40 years ago.

The interviewees' understanding of the purpose and form of an apprenticeship also differed from that found in the academic literature, and therefore to the policy that is often derived from it. To get more construction micro employers engaged with the apprenticeship system, they need to be helped to fully understand the system and how it can work for them.

USE OF INFORMAL APPRENTICESHIPS

Many of the tradespeople we spoke to said they were in favour of apprenticeships. But closer questioning revealed that what they actually supported was the idea of providing young people with opportunities to learn a trade directly from them, without any governmental intervention. The lack of a full understanding of apprenticeships has led to an informal apprenticeship approach being adopted by many of our interviewees. They want to deliver work-based learning but have a less than positive view of academic learning.

Many of the interviewees struggled with their own formal education and experienced difficulties during their training and apprenticeship. Many now felt that their desire to take on apprentices was underappreciated and was not being used to its full potential. This is backed up by the Institute for Employment Studies interview findings:

*A key perceived strength of the industry was therefore the ability to offer people a place to build a good career, regardless of previous experience and qualifications.*²³

Interviewees who were taking on their own informal apprenticeships did so through their professional and personal networks. According to the Institute for Employment Studies "66% of new entrants to construction had a friend or family member with construction experience".²⁴

Nearly all our interviewees who took on informal apprentices did so by subcontracting, which passes the risks and responsibilities for tax and entitlements onto the apprentice and effectively forces them into gig work. This approach gives the employer flexibility in managing the inevitable disruptions caused by unforeseen and uncontrollable circumstances in their work. By not being obligated to pay the apprentice when there is no work, the employer can better handle these shocks. However, this practice exposes the apprentice to significant risks.²⁵ In contrast, formal apprenticeship provides apprentices with greater security and a stable income.

23 Alexander, K., Roberts, C.P., Hooley, T., Hirsh, W., Lanceley, L., Mason, B., Osborne, E. and Pollard, E. (April 2024) *Research into careers in construction*. Institute for Employment Studies.

24 Alexander, K., Roberts, C.P., Hooley, T., Hirsh, W., Lanceley, L., Mason, B., Osborne, E. and Pollard, E. (April 2024) *Research into careers in construction*. Institute for Employment Studies.

25 Loughborough University Media Centre (January 2025) *'I was left with nothing.' Why apprentices are being pushed into the informal economy.*

EXPECTATIONS AND VALUE OF OFF-SITE TRAINING

Interviewees were split on how work-ready they expected apprentices coming to work for them to be. Some thought they would be ready to work at a professional level from day one, while others thought they would know nothing and would require close supervision. Interviewees were also sceptical about the skills that apprentices would learn in an educational context, believing that they would need to be trained in greater detail or shown new techniques on site. The apprentices we interviewed backed this up, saying they felt that there was little coordination between the skills they learnt with their training providers and the expectations of their employers.

In most apprenticeship systems globally, there is a requirement that the apprenticeship includes some general education. This requirement is weaker in England than on the continent but having to gain Level 2 qualifications in maths and English is still a requirement for Level 3 apprentices. However, the small and micro employers we interviewed had largely negative memories of school and college and it was felt that a lack of academic attainment should not be a barrier to an apprenticeship.

To get more construction micro employers engaged with the apprenticeship system, they need help to understand the value of the off-the-job training and to have more say in the skills apprentices learn during their apprenticeship. This highlights the need for greater engagement and dialogue between micro employers and educators so they can both understand their different strengths and how they could support one another.

PERCEPTIONS OF APPRENTICES AND OF CONSTRUCTION

Many felt that apprentices were pigeonholed as “thick, poor white boys” and that they were placed in apprenticeships for lack of a better option. It was also felt that this suggested the apprentice’s commitment and their level of ability were suspect. It is worth mentioning here that many of the interviewees said they had had negative experiences of formal education themselves.

However, some interviewees in the south-west who had retrained from careers in accountancy and law to pursue carpentry and joinery and had learnt from an expert running their own training provider that was completely unrelated to any formal education provision, felt that the negative reputation of the sector was undeserved. Indeed, many of our interviewees believed that academic education and the occupations it leads to are less worthy of esteem than vocational education and its associated occupations.

APPRENTICESHIP SUPPORT FOR MICRO EMPLOYERS

We spoke to a number of organisations that support micro employers to take on apprentices. They highlighted the complexity and inefficiency that was involved in working with multiple micro employers rather than a single large employer. It takes more time to locate multiple small companies and to understand their specific circumstances and needs.²⁶ Because taking on apprentices is the exception to the norm²⁷ they also have to convince them to take part in a system which seems to be based on different principles to the sense of duty that our interviewees felt to train the next generation.

²⁶ CITB (December 2022) *Construction apprenticeships. Challenges. Opportunities. Support. A CITB analysis.*

²⁷ CITB (December 2022) *Construction apprenticeships. Challenges. Opportunities. Support. A CITB analysis.*

Micro businesses in all sectors are the economic group least likely to provide training (46%):

Fewer than one half of micro businesses (2 to 4 employees) provide training compared to 95% of employers with more than 100 employees ... But they do spend more per trainee and employee than larger employers when they do train. Micro businesses spend 3.5 times more per trainee, and almost twice as much per employee, compared to large employers (100+ employees).²⁸

ADVANTAGES FOR LARGER FIRMS

The micro businesses we interviewed felt excluded from the national apprenticeship system, believing it to be dominated by large businesses. Their relationships with large companies were stretched, with poor payment and contracting terms creating a lack of trust. They believed that large companies were better placed to afford the costs of running an apprenticeship scheme, including the extra time required and the loss of quality in the short term. This is certainly reflected in the relative uptake of apprenticeships by larger organisations which is close to 100% (see [Table 2](#)).

ECONOMIES OF SCALE

Economies of scale benefit larger companies.^{29 30} Their size reduces the impact of fixed costs, gives them better access to capital, enables them to employ a more diverse workforce, gives them the power to invest in technology, provides them the opportunity to fund training and gives them significantly better bargaining power. The UK procurement system for construction makes businesses bid for work and they have to compete on cost and quality. This means larger companies have little opportunity to negotiate prices with their clients, but they can exercise significant buying power over smaller businesses, which affects the ability of small businesses to operate effectively. With the larger companies focusing more on project and contract management, the smaller businesses often end up holding more of the risk.

The construction marketplace in the UK can be divided into two categories. One category is the serial builders who have an ongoing and long-term construction programme. These include volume house builders, commercial landowners and government departments. These organisations mostly procure large and complex programmes of work through framework agreements that require significant administrative prowess and strong convening powers³¹ simply to apply for the contract, let alone to win and successfully deliver the project. These contracts invariably go to the largest organisations or to joint ventures. Economies of scale enable these larger organisations to secure discounts and leverage their spending power to get reduced rates.

Construction trades are the other category, and they can be up to five contracts removed from the client organisation and they are far less able to absorb financial shocks. On these projects, risk reduction and compliance clauses that require tradespeople to provide assurances of their capabilities to deliver the work are baked into the process, this includes things such as having cards to access sites, having standardised invoicing technology and the use of strict contracts.

²⁸ Clayton, N. and Evans, S. (July 2021) *Learning at work: Employer investment in skills*. Learning and Work Institute.

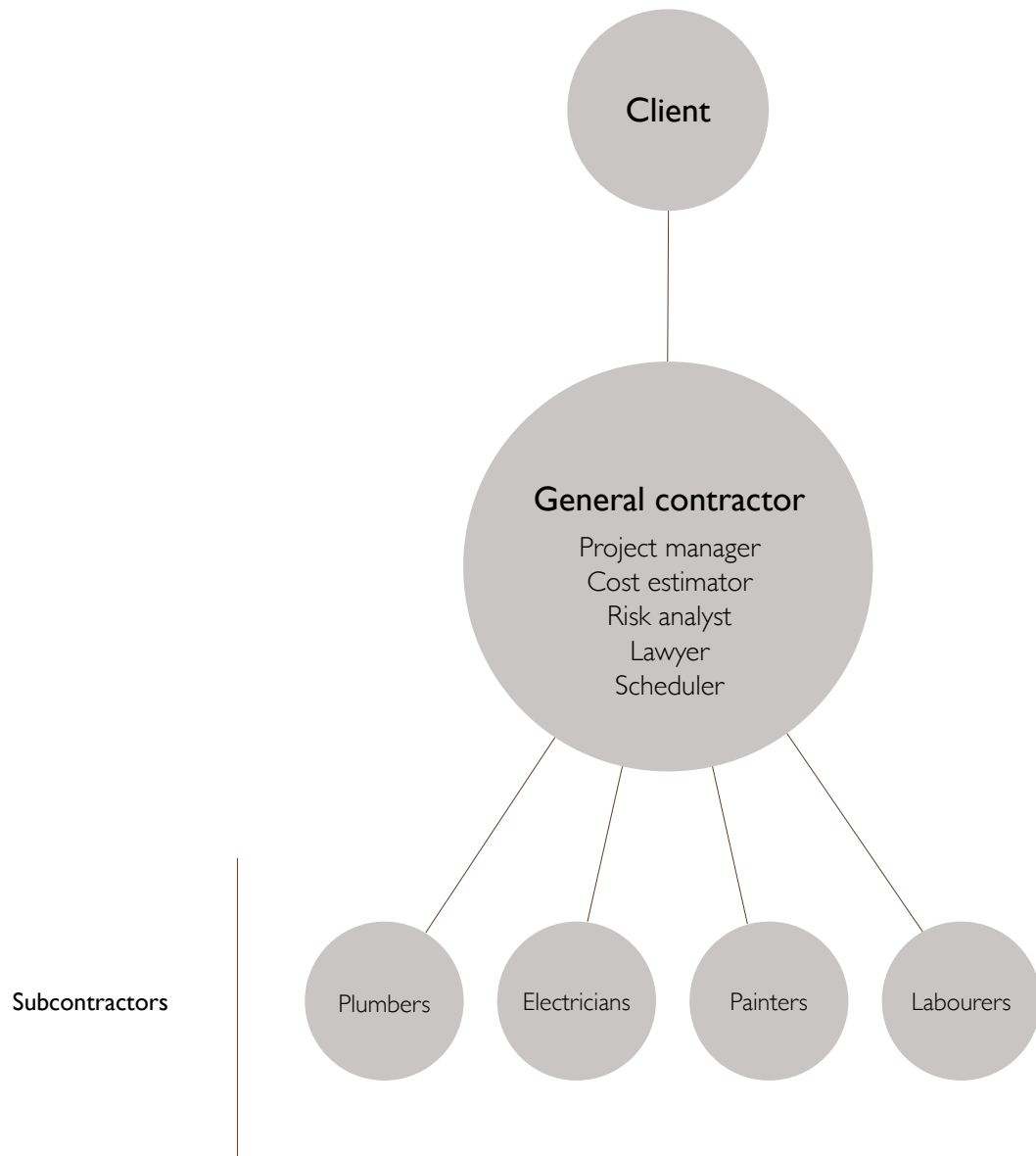
²⁹ Economics Help (June 2019) *Definition of economies of scale*.

³⁰ Investopedia (updated 24 August 2024) *Economies of scale: What are they and how are they used?*

³¹ Convening powers mean the capability to bring together the different resources needed for large projects, including expertise in grant writing, organising the supply chain and subcontractors.

Figure 1 illustrates the construction supply chain, showing the position of the trades in that chain.

Figure 1: Money flow in the construction project supply chain



SOCIAL VALUE ON MAJOR PROGRAMMES

Economies of scale enable larger organisations to develop long-term relationships with training providers and, in construction, they often have a direct financial incentive to do so, namely the use of public policy as a procurement instrument and the Social Value Act used to measure it.

Most large contracts have social value clauses, which stipulate that the winning bidder – the tier 1 contractor – must deliver a range of benefits to the community. However, the costs incurred by delivering these benefits come out of the main budget, so there are huge incentives to deliver them as cheaply as possible.

When the social benefit specified is training, the assessment metrics used are rather simplistic and reward quantity rather than quality. In reality this means more short courses instead of apprenticeships for young people. For the apprenticeships that are measured, the metrics focus on apprenticeship starts rather than completions.

We spoke to those who had been responsible for implementing social value on major programmes, including the New Hospitals Programme³² and Crossrail,³³ and they felt that the current measurement of social value could incentivise practices that did not result in the best outcomes for the skills shortage. In addition to the points already mentioned, they noted that because social value is an obligation placed on the tier 1 contractors, it is easier for them to meet this obligation by taking on apprentices themselves rather than devolving responsibility and funding down the supply chain. However, there are no stipulations about the type of apprenticeship, so tier 1 contractors recruit apprentices into clerical or office support and are less likely to take on apprentices in the construction trades.

CONTRACT MANAGEMENT AND RISK REDUCTION

Construction companies in the UK accounted for 17.7% of all insolvencies in England and Wales in July 2024,³⁴ and this is part of a wider trend for construction. The majority of these insolvencies are smaller businesses. Micro businesses are inherently more vulnerable to shocks to the economy because they have shorter work pipelines, and cash flow is always a primary concern.³⁵ With the role of the higher tiers of the industry becoming more about contract management and risk reduction, the result is that risk invariably travels downwards to those businesses that carry out the work. According to Professor Stuart Green, many contractors have removed themselves from the physical task of building and their business model “no longer relies on improving productivity. The risk of poor productivity is simply passed down the supply chain”.³⁶ Instead they are primarily responsible for “contract trading”, which involves them getting “the money in as early as possible and pay[ing] it out as late as possible”. He adds that the increase in firms becoming subcontractors and therefore not carrying out the main trades themselves, results in the growth of self-employment in the construction industry, with 50% of the workforce now being nominally self-employed.³⁷ While some business owners create a company for each project and

32 UK Parliament (2024) *Hospital building in England: Plans and progress*.

33 Crossrail (accessed 2025) *Home*.

34 Building Cost Information Service (BCIS) (24 July 2024) *Latest construction firm insolvency figures*.

35 Miklian, J. and Hoelscher, K. (2022) *SMEs and exogenous shocks: A conceptual literature review and forward research agenda*. *International Small Business Journal*, 40(2) pp.178-204.

36 BIMPLUS (2023) *2 ICC podcast: Is construction broken and why?*

37 BIMPLUS (2023) *2 ICC podcast: Is construction broken and why?*

close it on completion to minimise their risk, the large number of insolvencies demonstrates an underlying fragility in small construction companies.³⁸

MEASURING THE IMPACT OF CITB SPENDING

The CITB is the industry training board for the construction sector in England, Scotland and Wales. It is an executive non-departmental public body sponsored by the Department for Education. The CITB raises a levy which applies to all construction employers. The size of levy contribution that an individual employer makes is based on their total wage bill.

Levy contributions are used by the CITB to:

- *Support training development through grants and funding*
- *Promote the construction industry as a great career choice and offer high-quality apprenticeships*
- *Identify skills needs across the construction industry*
- *Develop occupational standards and qualifications.*³⁹

It is possible to use CITB's historical data to compare the amount of levy raised and the amount paid out to different sized employers (see Table 2). Unfortunately since 2019-20 it has become impossible to measure the impact the CITB is having on micro businesses because the data is no longer categorised by business size. This is despite the annual reports for 2019-20⁴⁰ and 2022-23⁴¹ highlighting specific initiatives aimed at supporting micro businesses.

Table 2: CITB levy incoming and expenditure by company size

Year	Company size	No. paying the levy	Total paid into levy (£000s)	No. claiming	Total paid out (£000s)	No. receiving no support	% of companies who received no support
2018-19	Large	281	52,594	273	26,929	8	3
	Micro	52,038	42,712	8,811	20,790	43,227	83
2017-18	Large	265	63,414	265	72,669	0	0
	Micro	51,336	45,796	9,159	26,216	42,177	82
2016-17	Large	231	59,487	231	52,760	0	0
	Micro	51,525	45,849	9,389	23,985	42,136	82

It is probably inevitable that all large companies would receive levy payments, but it must be a matter for concern that on average only around a fifth of levy-paying micro employers are receiving any payments, particularly given that they are most likely to be employing staff with construction skills rather than other types of roles that are part of the workforce of larger construction companies, such as legal or marketing skills.

38 BCIS (24 July 2024) *Latest construction firm insolvency figures*.

39 CITB (accessed 2025) *About the CITB levy: How we use the levy*.

40 CITB (2021) *Construction Industry Training Board (CITB) Annual report and accounts 2019-20*. GOV.UK.

41 CITB (2024) *Construction Industry Training Board (CITB) Annual report and accounts 2022-23*. GOV.UK.

POLICY ENGAGEMENT

Given the significant proportion of the construction sector that are micro companies, it might be reasonable to expect them to have a seat at the table when important decisions are made. But this is not the case.⁴²

The *Constructing the Team* report, known as the Latham report, was published in 1994 and this was the last construction industry report to include any mention of construction trades until the *Farmer Review* in 2016.⁴³ The Latham report says:

*The Institute of Roofing (IOR), in written and oral evidence to the Review, expressed concern at the level of representation of smaller subcontractors on organisations concerned with training, and particularly on the Construction Industry Standing Conference, which is concerned with the development of National Vocational Qualifications within the construction industry.*⁴⁴

This can was kicked down the road. The Latham report goes on to say:

The Constructors Liaison Group (CLG) should give the specific problem of the representation of smaller firms further consideration.

Despite the CLG being hosted by the Electrical Contractors Association and involving many specialist subcontractor trade bodies, which meant it included the perspective of the smaller firms, this was not followed up. The CLG closed in 2002.

APPRENTICESHIPS FOR THE TRADES

Apprenticeships for the construction trades remained largely unacknowledged even in reports focusing on education, such as the 1996 report *Educating the Professional Team* by the Construction Industry Board⁴⁵ which focused on undergraduate courses. The 1998 Egan report recommended that broadening skills, or “multi-skilling” as it phrased it, was essential. However, this was less about “specialist craftsmen” and more about “more workers able to undertake a range of functions based around processes rather than trade skills”.⁴⁶ This was the only mention of construction trades in the Egan report.

The 2000 report, *A Commitment to People “Our Biggest Asset”*,⁴⁷ called for greater registration and certification of site staff but reiterated the oft cited issues of the construction sector. While this report clearly identifies the next steps, none of the partners identified were small businesses, instead the focus was on representative bodies. This paper was taken forward by the *Accelerating Change* report,⁴⁸ written by the Strategic Forum for Construction, which would later go on to publish the 2016 *Guidance for Employing Young People* paper⁴⁹ under the Construction Leadership Council banner which sets out the behavioural expectations for young people and the specific allowances that should be made for them. While these papers all developed the thinking in addressing the skills issues, it was the

42 Dainty, A.R.J., Millett, S.R. and Briscoe, G.H. (2001) *New perspectives on construction supply chain integration. Supply Chain Management: An International Journal*, 6(4) pp.163-173.

43 Farmer, M. (2016) *The Farmer review of the UK construction labour model: Modernise or die*.

44 Latham, M. (1994) *Constructing the team: Joint review of procurement and contractual arrangements in the United Kingdom construction industry*. HMSO.

45 Construction Industry Board (1996) *Educating the professional team: A report by Working Group 9 of the Construction Industry Board*. London: Thomas Telford.

46 Rethinking Construction (1998) *The report of the Construction Task Force (the Egan report)*.

47 Rethinking Construction (2000) *A commitment to people “our biggest asset”: A report from the Movement for Innovation’s working group on Respect for People*.

48 Strategic Forum for Construction (2014) *Accelerating change. Rethinking Construction*.

49 Construction Leadership Council (2016) *Guidance for employing young people*.

2016 Farmer review, subtitled *Modernise or Die*, that tackled the issues head on. It acknowledged that “the smaller, SME [small and medium-sized enterprises] end of the industry is recovering proportionately less than the larger employers” and that “ease of application and support for SMEs needs to step-change”.⁵⁰

However, this report takes a whole-industry view and focuses on a tripartite covenant between the construction industry, its clients and government. As a result, the far-reaching recommendations are a work in progress, with changes made in the CITB and beyond. This is a demonstration of the muesli effect as, even when construction trades needs are addressed, their voices are not heard directly.

RESEARCH

Policy is based on research and there is substantial academic and professional literature looking at improving productivity, sustainability and social value in the built environment. However:

*The UK construction research community has largely ignored this important group of workers [craft workers], although anecdotal evidence abounds in the weekly construction press.*⁵¹

Instead the research has focused on other roles in the construction sector, such as managerial and professional roles.⁵² The research that has looked at the trades has focused on their removal, with an expectation that there will be significant automation of manual roles.⁵³ This has not happened and still the research does not address the realities of the construction site, where systemic issues are holding back the adoption of industrialised processes on building sites that remain relatively unchanged.⁵⁴

While this is not a direct reason that micro businesses in construction trades are not taking on apprentices, it is evidence of the muesli effect because their interests and needs are marginalised in favour of more attractive and novel areas of research that do not support them.

According to Jones et al. (2021) the role academia plays in working with the construction sector is to “provide an unbiased challenge to practitioners, leveraging the latest thinking in the field, and supporting the exchange of ideas”.⁵⁵ This takes the form of both knowledge transfer and advocacy:

*Working with universities offers input from skilled researchers, opportunities to co-create and shape new knowledge, and develop new R&D [research and development] projects, patents and licences. In some instances, streams of funding for research projects may only be accessible to industry when firms pair up with universities, to get the best from both worlds.*⁵⁶

50 Farmer, M. (2016) *The Farmer review of the UK construction labour model: Modernise or die*.

51 Murray, M., Langford, D.A. and Fisher, S. (2002) *Dirty construction workers: Who you looking at buddy?* Proceedings of CIB W65 the management of the construction process 10th International Symposium University of Cincinnati, Ohio, September 9-13th, 2002. Vol.2, pp.1309-1320.

52 Ness, K. (2009) *Not just about bricks: The invisible building worker*. In: Dainty, A.R.J. (ed.) *Proceedings 25th Annual ARCOM Conference*. 7-9 September 2009, Nottingham, UK. Association of Researchers in Construction Management. Vol.1, pp.645-54.

53 PricewaterhouseCoopers (2018) *Will robots really steal our jobs?*

54 Bing, Q., Razkenari, M., Costin, A., Kibert, C. and Fu, M. (2021) *A systematic review of emerging technologies in industrialized construction*. *Journal of Building Engineering*, Vol. 39 p.102265.

55 Jones, K., Mosca, L., Whyte, J., Davies, A. and Glass, J. (2021) *The role of industry – university collaboration in the transformation of construction*. Transforming Construction Network Plus, Digest Series, No.4.

56 Jones, K., Mosca, L., Whyte, J., Davies, A. and Glass, J. (2021) *The role of industry – university collaboration in the transformation of construction*. Transforming Construction Network Plus, Digest Series, No.4.

The construction sector has historically been involved in less R&D than other sectors because of its challenging operating environment. As a result, the ability to promote innovation and transformation in the sector has largely been driven by consultants and technology solution providers.

With construction being highly commoditised, larger businesses can differentiate themselves through their use of technology, however these technologies are rarely made available to the construction trades.

Greater focus of construction industry research on the specific issues of the micro business economy in construction trades, with measurable outcomes, would demonstrate the industry's awareness of and focus on the importance of micro and small businesses to the sector.

PARITY OF ESTEEM

The training providers we interviewed said that the lack of parity of esteem between apprenticeships and academic routes was a barrier to greater uptake of apprenticeships. The Farmer review noted that:

Construction's trade training crisis has without doubt been exacerbated by a widespread and possibly misplaced fixation in this country with progressing to Higher Education (HE) rather than a fuller consideration of more apprentice based or vocational courses. The sea change shift to HE in the last 20 years has disproportionately damaged the depth of the resource pool that construction draws from.⁵⁷

There are parity of esteem issues between apprenticeships and academic routes, but also between different roles within the construction sector itself. However, instead of tackling these issues, industry groups have prioritised the championing of white-collar construction roles, such as engineers and architects. The implicit suggestion is that apprenticeships in the trades have a lower status and that those who follow this type of apprenticeship route are doing so because they are somehow deficient. However, this view was not reflected in our interviews with micro businesses. The construction trade professionals we spoke to did not have any sense of inferiority because they found the work itself rewarding, both financially and emotionally, and they could see the physical impact of their work.

⁵⁷ Farmer, M. (2016) *The Farmer review of the UK construction labour model: Modernise or die*.

CHANGE INITIATIVES: SHAKING UP THE MUESLI PACKET

Although the construction sector faces many challenges in addressing its skills gaps, there are initiatives that are already addressing the muesli effect.

APPRENTICESHIP SUPPORT ORGANISATIONS

Ryder Architecture developed PlanBEE in collaboration with Gateshead College.⁵⁸ The initiative, which launched in 2016 and is now also delivered in Manchester and London, has demonstrated that the apprenticeship system can work for micro businesses in construction. PlanBEE reduces the risks for micro businesses by taking all the administrative burden away from them. For the apprentices, it provides opportunities to work with a number of different firms, giving them a broader experience of the industry and enhancing their professional capabilities. The initiative also increases completions because the apprentice can find the profession that is right for them.

CITB SUPPORT FOR MICRO BUSINESSES

The CITB introduced and then expanded the New Entrant Support Team (NEST)⁵⁹ ⁶⁰ which supports those wishing to take on apprentices by providing them with guidance on paperwork, who to speak to and on other administration tasks that have been highlighted as barriers for micro employers. While this could be a real benefit to micro employers, it still requires the businesses to reach out in the first place.

LEVY EXEMPTIONS

The threshold at which businesses become eligible to pay the CITB levy has been changed recently. The Small Business Levy Exemption⁶¹ reduces the financial burden on those organisations that have a wage bill lower than £120,000, rising to £135,000 in 2025. However, all businesses still need to complete a levy return, so it has not eased the administrative burden.

58 Gateshead College (accessed 2025) *PlanBEE*.

59 CITB (accessed 2025) *New Entrant Support Team*.

60 CITB (accessed 2025) *CITB unveils new direction: Investing in the construction skills system*.

61 CITB (accessed 2025) *Levy rates*.

RECOMMENDATIONS

We have shown that with an undirected process – the muesli effect – micro businesses experience a tougher operating environment and are marginalised. Their value and needs are underestimated and underserved, including by apprenticeship policy. We have also shown that these organisations make up a significant proportion of the workforce.

Tradespeople feel they are seen as a hurdle that has to be overcome. This is how they are represented in academic research, the latest construction industry reports, and, tacitly, in the way the industry is promoted, which is very different to the reality on site. White men dominate the demographic of the industry, and of micro businesses in particular. The skills crisis will not be overcome by circumventing or ignoring them, but by working with them.

If construction micro businesses do not have faith in the apprenticeship system to deliver qualified, motivated staff they will not use it. The system needs to balance the explicit and implicit costs to a business for onboarding apprentices.

Not all the factors stopping micro employers taking on apprentices can be addressed here (such as the culture of construction or the mental health of those working in the sector) but implementing our recommendations will help create a more inclusive and supportive environment that enables small businesses to contribute fully to the growth and development of the construction industry. They will engender faith in the official apprenticeship system and help micro employers see how apprenticeships can work for them and add value to their businesses. They will also enable tradespeople to fulfil the motivation they already feel to train the next generation.

To avoid the natural downwards percolation of the needs of micro employers and the needs of larger employers rising to the fore, these mechanisms must be put in place.

DEVELOP COMMUNITY FACILITATORS

Construction community facilitators could be tasked with building relationships with micro employers and creating targeted local solutions to skills shortages that use apprenticeships. Community facilitators will:

- educate micro employers about apprenticeship benefits and available programmes
- assist with paperwork and regulatory requirements
- connect micro employers to form collaborative apprenticeship networks
- champion apprenticeships within the community to raise awareness
- create opportunities for apprentices to be mentored and to join local support networks
- monitor programmes to ensure they meet standards and provide value
- identify local skills gaps to tailor apprenticeship programmes accordingly
- support micro employers to structure effective apprenticeship programmes

Community facilitators can be individuals or organisations, and they can take on all or some of the responsibilities outlined above. There should be opportunities for experienced tradespeople to become community facilitators and to give something back to the construction community by advocating for apprenticeships, providing

peer support and acting as a guide to the apprenticeship system. They should be at the forefront of outreach and engagement with local businesses to create a network that encourages greater uptake of apprenticeships.

Community facilitators should receive professional development opportunities to ensure they are up to date with the latest industry trends, policy changes and best practices in apprenticeship management. This will enable them to offer the most relevant and effective support to micro employers. Community facilitators will operate differently in each region, depending on the availability, skills, experience and available time of individuals and businesses. Clear performance metrics for the role should include the number of micro employers they support, the success rate of the apprenticeships in those businesses and the overall satisfaction of the micro employers they support. These metrics should be used to continuously improve the facilitator programme and ensure that there is enough support provided in each region.

Creating and administering such a programme would be prohibitively expensive for the CITB. However, lots of approaches have demonstrated value, whether performed by regional and local authorities, like the West Midlands Combined Authority, or by organisations like PlanBEE. With support from the CITB they could provide a step change in micro employer engagement.

CREATE A MICRO EMPLOYER ENGAGEMENT STRATEGY

Building trust and active local engagement in apprenticeships requires both a national approach and tailored local solutions. Government, through Skills England, should work with flexi-job apprenticeship agencies, mayoral combined authorities, local government, housing associations, a broad representation of employer representative bodies and a steering group of representative micro employers to create a dedicated engagement strategy for construction micro employers. The construction trades micro employer steering group should have a flexible membership that provides a touchstone for the engagement of micro employers.

The engagement strategy should involve a comprehensive, multi-tier approach that develops localised support. It should take a bottom-up approach, leveraging the organisations that are active in each region to develop a national approach that also meets local needs. This may involve setting up regional hubs or nominating regional community facilitators to connect with local communities and professional networks. Funding for this initiative could come from ring-fencing the CITB levy income received from micro employers.

To succeed there needs to be a long-term approach that includes regular follow-ups, workshops and feedback sessions to maintain continuous dialogue. The focus of the engagement strategy is to support the day-to-day operations and long-term planning of micro employers rather than being a way to include them in policy discussions.

ENGAGE CONSTRUCTION MICRO EMPLOYERS IN APPRENTICESHIPS

Organisations like the Federation of Master Builders⁶² and the Electrical Contractors' Association⁶³ have played key roles in representing construction trades, however, non-engagement remains an issue. With more than 80% of micro employers not using the apprenticeship levy (see [Table 2](#)), and estimates suggesting the total number of micro employers to be closer to 1 million than to official estimates, there is an urgent need to engage with these businesses. Steps should be taken to ensure that representatives include those from construction micro employers who are not already represented.

Skills England should ensure that construction trades micro employers and the micro employer steering group are included in the development and review of apprenticeship standards by providing incentives that support their attendance at meetings. A broad incentive structure should be developed that includes honorariums, but may also include covering travel costs, providing additional compensation for time spent away from the business or a financial incentive for businesses that actively contribute to the development of apprenticeship standards.

To empower micro employers to contribute to apprenticeship standards they should be offered training in standards development and standards setting. This should include workshops on the process but should also demonstrate how their previous input has shaped policies. Creating feedback loops that demonstrate the effectiveness of working with smaller businesses will not only validate their contributions but also encourage ongoing engagement.

DEVELOP NEW APPRENTICESHIP STANDARDS

The development of new apprenticeship standards should be an inclusive process that actively involves micro employers at every stage. A co-development model should be established, where micro employers collaborate directly with Skills England and training providers to develop apprenticeship standards that can be employed by the trades. This approach can lead to pilot programmes, such as a general site skills Level 2 apprenticeship, which are closely monitored with regular feedback sessions to refine the standards before wider implementation.

MAKE APPRENTICESHIPS MORE FLEXIBLE

To accommodate the needs of micro employers, apprenticeships must be delivered in a more flexible way. Skills England should work with small employers and flexi-job apprenticeship⁶⁴ agencies to increase the range of flexible apprenticeships beyond the 10 out of 117 apprenticeships currently available.⁶⁵ Flexibilities should be designed with micro employers to ensure they are practical and beneficial, and particular attention must be paid to overcoming logistical challenges and workload uncertainty.

The possibility of combining modules from different trades should be explored. This would more closely reflect the multifunctional roles that many micro business employees perform.

Skills England should also explore the feasibility of accelerated apprenticeships for those who have completed relevant construction T-levels or who have prior work

62 Federation of Master Builders (accessed 2025) [About us](#).

63 Electrical Contractors' Association (accessed 2025) [About ECA](#).

64 GOV.UK (updated 31 March 2025) [Guidance: Flexi-job apprenticeships using an approved agency](#).

65 GOV.UK (October 2023) [Guidance: Eligible standards](#).

experience. This would allow apprentices to progress more quickly through the training, reducing the time commitment required by micro employers.

DEVELOP TRAINING PLANS

Large firms have dedicated HR teams who can help to organise the training of apprentices. For micro employers, taking on an apprentice is more daunting because they receive little guidance about their role in the training. A training plan that sets out the respective responsibilities of the employer and the provider would be of real value to the micro employer and would help them ensure better coordination of the on- and the off-the-job training. Skills England should work with the CITB, micro employers and providers to produce example training plans for the trades. These example training plans could be used as designed, but training providers and businesses should also have the opportunity to adapt them or develop their own that better fit their specific needs and capabilities.

EXPAND APPRENTICESHIP LEARNING

As the construction sector responds to market changes and strategic government objectives, developing and delivering apprenticeships is an opportunity to align the industry at all levels. By adapting training plans to cover issues having a seismic impact on the sector, such as the Building Safety Act 2022, retrofit, off-site construction and sustainability, necessary changes to working practices can be better implemented.

MEASURE PROGRESS

Skills England should work with the CITB to measure the number of micro employers engaging with apprenticeships. This should be used as a key indicator to measure the effectiveness of their engagement with micro employers.

The metrics should also include apprenticeship completion rates, apprenticeship retention and the career progression of apprentices. Analysis identifying which specific construction trades are the most and least engaged with apprenticeships, including general labouring, should be made. This analysis should inform targeted interventions to increase engagement where it is needed most.

An annual impact report should be published that details the progress made in micro employer engagement with apprenticeships. These reports should be made publicly available and be used to inform future policy decisions, ensuring transparency and accountability.

MEASURE SOCIAL VALUE

To drive the uptake of apprenticeships by micro employers, changes need to be made to the way social value is measured under the Social Value Act. Government departments and local authorities should examine their social value requirements for each construction project based on the capital value of the projects that they procure. They should develop targets for apprenticeships that include requirements for engaging micro employers in the supply chain and for the number of construction trades apprenticeships.

As part of any project-specific social value strategy, there should be a clear objective around upskilling their entire supply chain. This should detail the specific approach being taken to apprenticeships. While recording the hours spent on training may be appropriate, other outcome-based metrics, such as the number of

apprenticeships completed, the number of high-priority apprenticeships completed and the career progression of apprentices, should be preferred.

These strategies may include a skills development fund that can be provided by the public authority or the supply chain and it should be used to subsidise the costs of training for micro employers and ensure that they have the resources needed to meet their obligations. This will empower small business owners to get the most out of apprenticeships and will increase their value to society and the economy. They should be provided with free or subsidised training on mentoring apprentices, have access to external mentors or support networks, and receive funding for equipment or materials needed for training.

DEVELOP RESEARCH RELATIONSHIPS

Academic institutions developing relationships with micro employers in the construction trades would unlock an untapped avenue of productivity improvements for the sector. Construction micro businesses having access to the same sort of innovation support available to larger companies would not only increase productivity, but it would also free them from having to be so concerned with their immediate business and enable them to address their skills pipeline and employ apprentices. This requires targeted support by government departments that work extensively with construction trades and should be facilitated by Innovate UK.⁶⁶

⁶⁶ "Innovate UK, part of UK Research and Innovation, is the UK's innovation agency. Our mission is to help companies to grow through their development and commercialisation of new products, processes and services, supported by an outstanding innovation ecosystem that is agile, inclusive and easy to navigate". UK Research and Innovation (accessed 2025) *Innovate UK*.

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APPENDIX: THE MUESLI EFFECT

The muesli effect explains why all the large pieces in your bowl of muesli end up at the top of the packet and the flakes of oatmeal end up on the bottom. After the cereal is poured into the packet at the factory it is loaded onto palettes, the packets are all stacked vertically. The packet is then loaded onto a lorry, which is where the muesli effect happens, the bumps and jostling as the lorry wends its way to deliver the cereal to the shops shake the packet and the individual cereal pieces move about. The oddly shaped large pieces of fruit and nut create voids beneath them, and the smaller pieces of oatmeal fall through the cracks. The result is that the oatmeal continues to fall and they buoy the Brazil nuts and large pieces of fruit. The end result is that the first bowl you pour is the best, and the last is the saddest. This is what is happening to micro businesses and therefore to the construction trades.

HOW DOES THIS APPLY TO CONSTRUCTION APPRENTICESHIPS?

When an apprenticeship policy needs to be implemented in the construction sector, interacting with fewer, larger companies sees a better return on investment. For the training provider, engaging with a single large employer is easier and less time consuming than working with numerous micro employers. Having a single point of contact in a large business who understands apprenticeships is a preferable partner than an individual business owner with a lot on their plate. The impact is greater: for less effort an exponentially larger number of apprenticeships can be secured.

Larger businesses are also more able to spare the time and energy of members of staff to engage with the many councils, groups and committees that are leading or advising government policy.

This packet of muesli needs shaking up so that the construction trades, which are still the backbone of the industry, are given a fair chance.

EXTERNAL FORCES – EXCITATION

If the muesli particles are not subjected to any external force, they remain settled in place. But if they are vibrated, the particles bounce around. Their position and size are the primary factors in the way that they react.

The external forces acting on companies are the day-to-day realities of operating and the long-term survival of their business. This can include the cost of living, illness and setbacks which all affect smaller companies more than larger ones. Being at the top means winning the best work, having policy that is favourable to your organisation and making the most money. Being at the bottom means struggling to get by and having no voice in policy.

DOWNWARD FORCES – SMALL PARTICLE PERCOLATION

As the muesli shakes, the smaller particles move more easily and can fill any voids faster than larger particles. With no spaces for the larger particles to fall into, the smaller particles naturally sink due to gravity and vibration. It is unsurprising then that the smaller companies fall through the cracks, they are more vulnerable to shocks that push them downwards, and they play a role in supporting the larger companies to deliver their workload.

UPWARD FORCES – LARGE PARTICLE BUOYANCY

As the smaller particles percolate into the gaps, the larger objects are forced upward. As they rise, they continue to create voids beneath them which the smaller particles fall into, and so the cycle continues.

It is not surprising that larger companies rise to the top. They have the capacity and the economies of scale necessary. They can dedicate entire teams to recruitment, apprenticeships and upskilling. They can spare individuals to engage with policy development. They are better able to absorb shocks to their supply chain and negotiate better deals.

LARGE AND SMALL

The construction sector is made up of a small number of large companies and a lot of smaller ones. This directly correlates to the conditions needed for the muesli effect to occur.

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