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Building Our Future: Positive Steps Forward for Apprenticeship Education and Training in Ireland

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Abstract

The construction labour market has undergone a period of considerable turbulence resulting from economic cyclicalities over the last decade. While some facets of the labour market have recovered in line with economic growth, there remain challenges in attracting new apprentices. The issue is particularly pronounced for certain “*wet trades*”; namely bricklaying, floor and wall tiling, painting and decorating and plastering.

A mixed method research strategy was employed for the purpose of determining labour market trends for these trades, comprising of employer and apprentice surveys in addition to semi-structured interviews. Findings from the research uncover not only a shift in organisational business models with dependence on sub-contract labour, but also a range of remaining challenges to direct employment and apprentice engagement. Unique insight is presented into the motivation for current apprentices in selecting their career in addition to their opinion on the apprenticeship programme on which they are registered.

A number of recommendations arising from the research have been presented to government, and are either currently under consideration or have been actioned, however there remains much to be done to address construction labour market challenges.

Key Words: Construction; apprenticeship; labour market

Introduction

The construction industry is highly cyclical which brings about challenges in maintaining equilibrium in the construction labour market. This is compounded by the long-term nature of many construction projects and fragmented composition of the sector, with multiple stakeholders along the supply chain. The construction labour force is complex and while the sector is cyclical, the impact on the labour market is not uniform.

The combination of an employer-led apprenticeship model and poor reputation of apprenticeship generally in Ireland remains an on-going challenge in attracting and retaining construction apprentices. This is highly pronounced for the ‘wet trades’, including bricklaying, floor and wall tiling, painting and decorating as well as plastering. Registrations on these trades in particular, did not keep

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pace with economic and construction sector recovery and growth (Ó Murchadha and Murphy, 2018) a situation which has given rise to the research at hand.

The purpose of the research is to focus on these 'wet trades' to ascertain the:

- types of employment for these trades, including direct/sub-contract/agency workers.
- challenges to direct employment and apprenticeship training across these trades from an employer's perspective.
- apprentices' perspective on their chosen career and motivation for undertaking the programme.

The paper is set out in five parts. The first section provides the background and context for the research. A review of the current trends in the Irish economy and construction labour market is presented with specific emphasis on apprenticeships. There remains a paucity of reference materials specifically addressing bricklaying, tiling, painting and plastering therefore the focus of the review is more generally on construction apprentices.

The subsequent section presents the research strategy employed for the purposes of the study. The research was funded by the Construction Industry Federation (CIF), the representative body for construction contracting organisations in Ireland.

The third section provides an analysis and discussion of findings following which a discussion of the key themes emanating from the field work undertaken. A number of recommendations are made based on the findings from the research, which are presented within this section.

The paper is closed out with the conclusion section.

Background and Context

Irish Economy and Construction Labour Market

The Irish economy has undergone significant change over the last two decades, from periods of rapid growth to prolonged recession followed by a return to growth prior to the Covid-19 pandemic in March 2020. In the year to Q1 2021 every sector faced unprecedented market conditions due to Covid-19, and the impact on the economy and construction sector is likely to last for many years to come.

Prior to the onset of Covid-19, economic cyclicalities have had a profound impact on the construction sector, particular in the labour market. Figure 1 illustrates the trend in this regard up to Quarter 4 (Q4) 2019.



Figure 1: GDP and Construction Employment (CSO, 2020)

A properly functioning construction labour market relies on sufficient numbers of qualified workers in pursuit of the strategic outcomes specified in Project Ireland 2040 (Government of Ireland, 2018a). The perceived lack of job security arising from the severity of fluctuation in the construction labour market results in cyclical registration on construction education and training programmes across the board (DKM Economic Consultants, 2016; O'Murchadha and Murphy, 2018). The current model of apprenticeship in Ireland has consequently come under scrutiny.

Apprenticeship in Ireland

The craft apprenticeship model in Ireland is an employer-based model undertaken over four years in seven phases. The phases alternate between on-the-job (with employer) and off-the-job (training centre or college) periods ranging from 10 to 24 weeks (SOLAS, 2019). Apprenticeship is both education and employment, thus an apprentice is required to have secured employment prior to registration by his/her employer with SOLAS. Apprentices undertake the first phase of their training with their employer, thereafter, alternating between education and workplace, phase by phase. Apprentices are paid in accordance with the Sectoral Employment Order (Construction Sector) (2019), and upon successful completion of the seven phases are awarded a Level 6 qualification on the National Framework of Qualifications (NFQ), commonly referred to as the *National Craft Certificate*.

Economic cyclicality and an employer-based model present significant challenges during an economic downturn or recession. Apprentices tend to be the first people to be made redundant if organisational downsizing is required and at the same time, new registrations across the construction family of trades decrease during this time, due to the perceived lack of future employment opportunities. However,

even during periods of economic growth challenges remain given the ongoing prioritisation of traditional third level education over apprenticeship as the favoured post second-level education option in Ireland (SOLAS, 2020).

The 2008-2013 economic recession in Ireland resulted in the number of new registrations on apprenticeships across construction plummeting, and while many recovered in tandem with economic growth, the recovery was not uniform (Department of Education and Skills, 2013; Ó Murchadha and Murphy, 2018). In the case of trades such as bricklaying, floor and wall tiling, painting and decorating and plastering, this challenge is particularly pronounced. These trades (known as 'wet trades'), continue to struggle to attract new registrations, as is evident from figure 2.

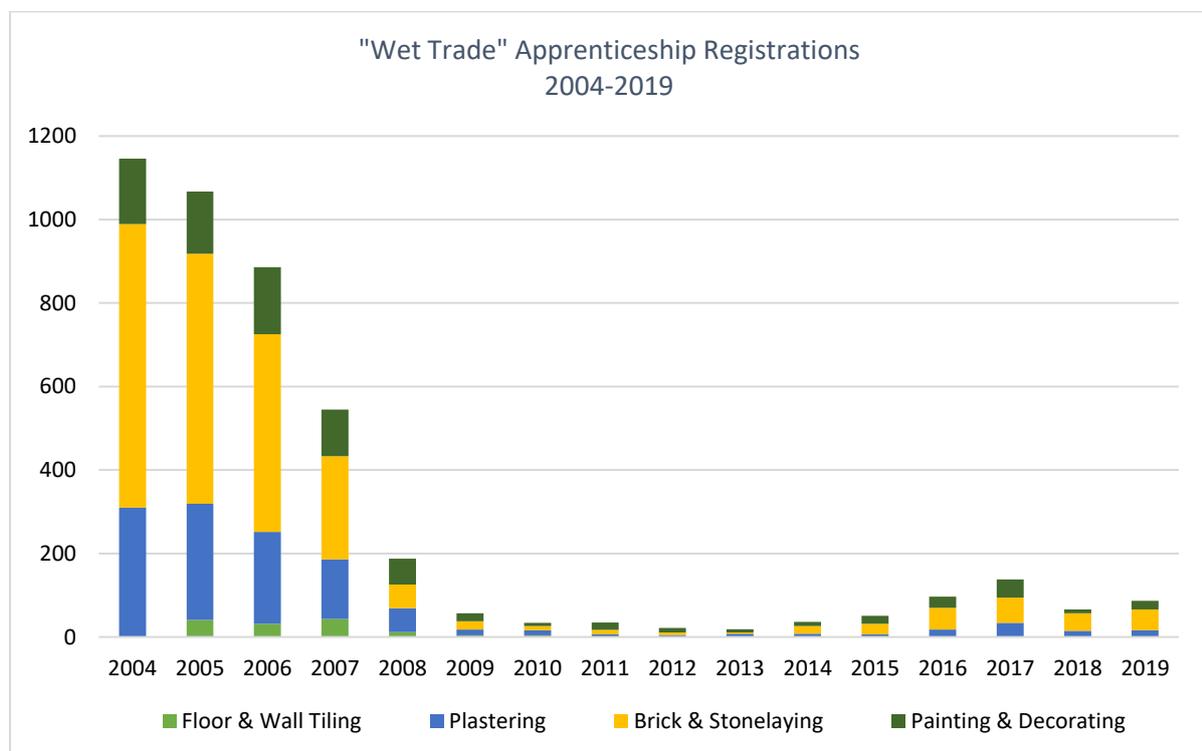


Figure 2: Apprenticeship Registrations 2004-2019 (SOLAS, 2019)

As is evident from Figure 2, the reduction in new apprentice registration across the trades in question had begun to decline prior to the economic downturn, however since recovery took hold (2014) the numbers have remained stubbornly low.

The National Development Plan 2018-2027 (Government of Ireland, 2018b) sets out ambitious targets to address the significant deficit in residential construction in particular, including the retrofitting of existing housing stock to improve energy performance. Attainment of these objectives are aligned to the Sustainable Development Goals (SDGs) as identified by the United Nations (UN) (United Nations, 2015). Trades such as bricklaying, plastering, painting and floor/wall tiling play a critically important

role in the structure, thermal efficiency, aesthetic and fire safety of our built environment and as such are a crucial participant in the attainment of both our NDP objectives and SDG's.

Earlier research had, for the first time in Ireland, investigated the demand for construction trades from the employer's perspective (Ó Murchadha and Murphy, 2018) from which it was concluded that 'wet trades' warranted further investigation. The purpose of the research is to address the gap in knowledge, and to determine the cause of the ongoing challenges, and to propose a suite of recommendations to address the ongoing impediments pertaining to these trades in particular. Though not purporting to be a panacea for apprenticeship engagement, this report was a first of its kind study in Ireland, which has influenced commentary on the subject at a national level.

Research Methodology

The research was undertaken in collaboration with the Construction Industry Federation (CIF), which is the Irish construction industry's representative body.

CIF member companies that employ bricklayers, plasterers, painter/decorators and floor and wall tilers were invited to participate in the research, from whom consent was agreed directly with the CIF. The target respondents were main contractors, specialist sub-contractors and house builders.

In addition to CIF members, current apprentices undertaking bricklaying, plastering and painting and decorating apprenticeships were also invited to participate. At the time of writing, floor and wall tiling had no registered apprentices.

Research Design

A mixed method research strategy was employed for the purposes of the study, including a survey of both employers and apprentices in addition to a number of interviews conducted with a range of construction sector stakeholders.

Quantitative Phase

The quantitative phase involved two surveys administered using an online survey platform. Each survey is outlined in the following sections.

Employers Survey

The first survey involved a key informant from a range of CIF member companies that employ the tradespeople in question. Determining a key informant guarded against potential for double counting.

A sample population of 936 companies was identified comprising contractors and specialist contractors engaged in general contracting and housebuilding. 174 usable responses were obtained indicating a response rate of 18.5%. A response rate of this magnitude is comparable to other research within the construction sector (Hua, 2007).

The survey was structured into four sections as follows:

1. General Company Information: company size, location, sectors serviced
2. Current Recruitment of Trades and Apprentices: number of directly employed, sub-contracted, apprentices and agency workers).
3. Education and Training: perspectives on apprenticeship programme (duration, structure and content)
4. Future Demand for Trades and Apprentices: forecasted future demand for trades (directly, sub-contract and apprentice).

Apprentice Survey

The second survey was administered to apprentices currently registered in the areas under scrutiny. Only people registered on phases 3-7 in the selected apprenticeship programme were surveyed as they have completed at least one phase both on-the-job and off-the-job training thus best placed to provide perspectives on various phases of the apprenticeship. Details of sample population, responses and response rates are provided in table 1:

Table 1: Apprentice Survey

	Sample Population	Usable Responses	Response Rate
Bricklaying	124	25	20%
Painting & Decorating	86	22	26%
Plastering	58	12	21%

As noted in a previous section at the time of writing, no apprentices were registered on floor and wall tiling.

The survey was structured into four sections

1. General Information: location of apprenticeship
2. Apprenticeship: current phase
3. Motivation for Undertaking Apprenticeship
4. Perspectives of Apprenticeship Programme: duration, structure, content

The navigational guide was consistent throughout the survey in both periods of data collection for ease of navigation (Dillman, 2000). In several instances, the questions provided scope for respondents to provide additional comments to garner further depth of insight into their responses.

Each survey instrument was pilot tested prior to being administered using an online survey tool to target participants. Participants were informed of the purpose and scope of research, the voluntary nature of their participation and that responses were to be aggregated such that no individual respondent would be identified in the publication of results.

Qualitative Phase:

The qualitative phase of research involved 22 semi-structured interviews with a range of industry stakeholders, including construction contractors, education providers and construction unions. An interview protocol template was designed to replicate themes addressed in the survey for the purpose of obtaining further depth of insight.

Data Handling and Analysis

Data for both phases were collected, handled and analysed solely by the author. Results and analysis provided to the funding body thereafter were not amended in any way thus present an accurate depiction of respondent perspectives.

The survey instrument for both employers and apprentices was used for data collection purposes, with permission to view the dataset reserved solely for the author using a unique password. Descriptive analysis was facilitated using the tools available within the online survey instrument.

Interviews took place either in person or over the telephone and were not recorded, but notes were taken by the research throughout the discussion for future analysis. An interview protocol was developed to guide the semi-structured interview to ensure similar themes were addressed with each participant while permitting flexibility to probe as appropriate.

Findings and Analysis

The sections following provide an overview of the findings primarily from the quantitative phase of research and supported by the qualitative for the purposes of quotations only.

Employer Survey

The objective of the employer survey was to determine current trends in the employment of the tradespeople and apprentices across the trades under scrutiny. As noted previously, a senior respondent within each company was identified, and confirmed consent to participate in the research.

The first number of questions sought to determine demographic information pertaining to respondent companies. As is evident from Figures 3 and 4, a nationwide response was received from companies of varying sizes. Both Figures demonstrate that survey respondents were broadly representative of national norms, with a large proportion of firms employing fewer than five people (CSO, 2021), and the majority of work undertaken in the Greater Dublin Area (GDA).

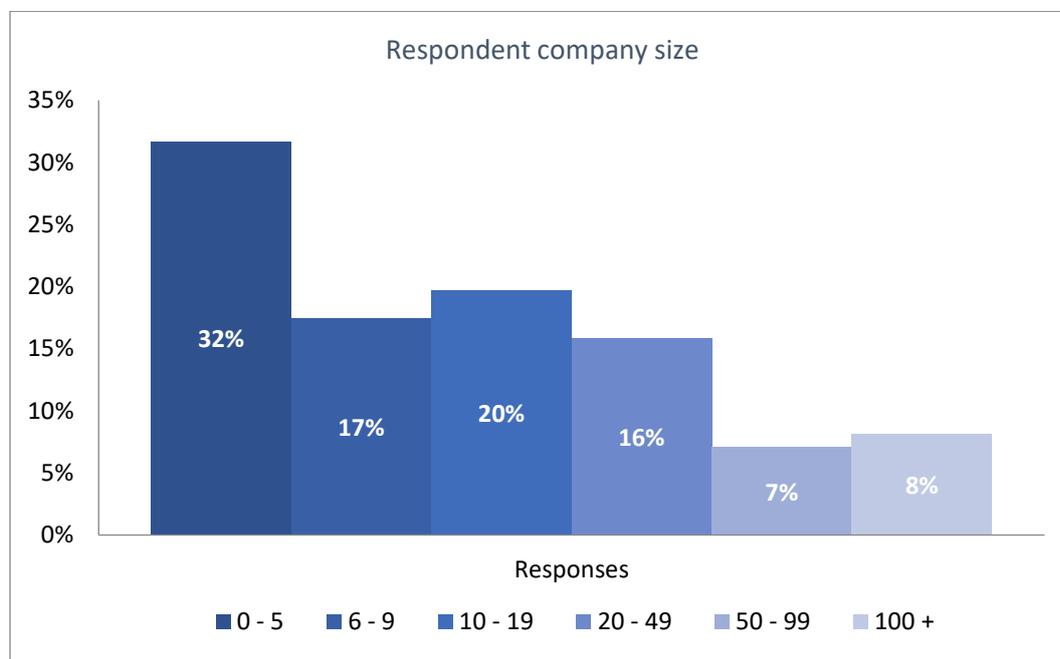


Figure 3: Respondents by company size

The total number of respondents per geographic area is illustrated in Figure 4, demonstrating the national representation of respondents. The total number displayed within the figure is in excess of the aforementioned 174 usable responses as a number of companies have a foothold in several geographic locations.

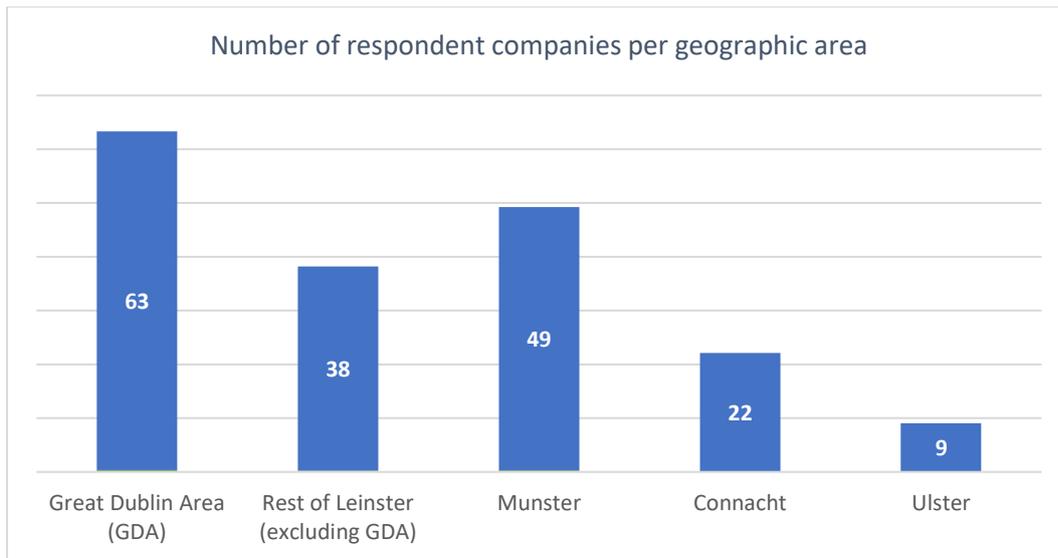


Figure 4: Respondents per geographic area

One of the key objectives of the employer survey was to determine the number of apprentices trained, the number of people directly employed and the number of people employed on a sub-contract basis amongst respondent firms. Figure 5 illustrates the trends in this regard.

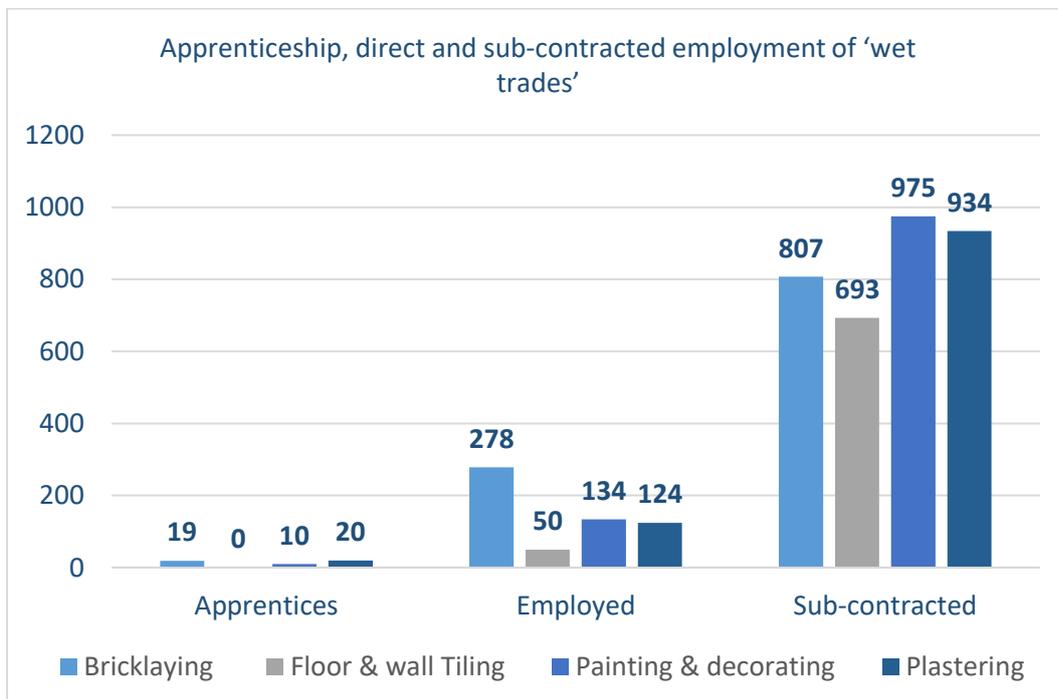


Figure 5: Number of apprentices, directly employed and sub-contracted

The data contained in Figure 5 demonstrates very clear employment trends for the trades in question. The evidence confirms that the number of apprentices currently engaged by respondent companies is exceptionally low, with the number of sub-contract labour notably higher by comparison.

Survey respondents were asked to identify barriers to training apprentices, the top three in rank order were identified as being:

- Use sub-contract labour rather than train apprentices (due to cost)
- Company is too small and does not have the capacity to train apprentices
- Period of off-the-job training is too long.

The cost of training apprentices was the key barrier to apprenticeship engagement with companies moving relying on sub-contract labour instead. The second factor relates to company size. In probing this finding during the qualitative phase, respondents noted that during the previous economic recessions many contractors were forced to significantly downsize to survive, often with apprentices the first to be made redundant. Rather than a temporary response to the economic crises, it has become a structural change to many contractors' organisational business model, which is unlikely to be reversed. The new model relies heavily on sub-contractor involvement with a corresponding decrease in direct employment and apprenticeship training.

Smaller companies in particular, often find the period of off-the-job training too long to be without the apprentice, thus another barrier to engaging apprentices. A notable number of respondents identified the cyclical nature of the construction sector more generally interview respondent commented:

"The cyclical nature of our industry leads to uncertainty about future workloads thus taking on training of apprentices for 4 years especially in the 'wet trades' can be a big ask of employers."

The reduced company size in many instances raises another challenge in engaging apprentices as regards the scope of works undertaken by the company. Interview respondents expanded upon this point by noting that in many instances a company, given its size, cannot guarantee that an apprentice would have the opportunity to work on the variety of projects required for eligibility to train an apprentice.

As regards direct employment of qualified tradespeople mirror those of apprentices, and in rank order include:

- Lower costs by using sub-contract labour
- Regulatory requirements too onerous
- Too expensive to employ directly
- Discontinuous demand for 'wet trades'

As is evident from Figure 5 the predominant employment type of respondent contractors across the trades in question is sub-contracted. Sub-contractors play an important role in the delivery of specialist services for construction projects, however the excessive reliance on sub-contractors for the delivery of day-to-day operations, often in place of engaging apprentices or direct labour, is of grave concern. Not only will it lead to a skills shortage into the future, but there is potential for quality control issues arising from workers not being employed by the contractor.

Some survey respondents believe that the duration of the apprenticeship programme is too long, the majority of whom were referring to floor and wall tiling in particular. Interview respondents concurred with this opinion and suggested instead that the shorter traineeship route is preferable. However, interview respondents were strongly of the opinion that this duration should be examined on a trade by trade basis.

The prevalence of sub-contract labour is a particular concern to union representatives involved in the qualitative phase of research. In particular, the prevalence of “bogus self-employment”, (whereby an employer misclassifies workers as self-employed rather than direct employees), was highlighted as an on-going challenge. Quantification of bogus self-employment lies outside the scope of the research and therefore the incidence of the issue in practice across the construction sector remains anecdotal.

Apprentices’ perspective

The second survey was administered to those from phase 3 to 7 for the trades in question, thereby excluding floor and wall tiling as there are currently no registered apprentices for this trade. The purpose of the survey was to determine the perspective of current apprentices registered on bricklaying, painting and plastering programmes.

Respondents were asked to identify their motivation for undertaking their chosen trade, and Figure 6 provides the detail in this regard.

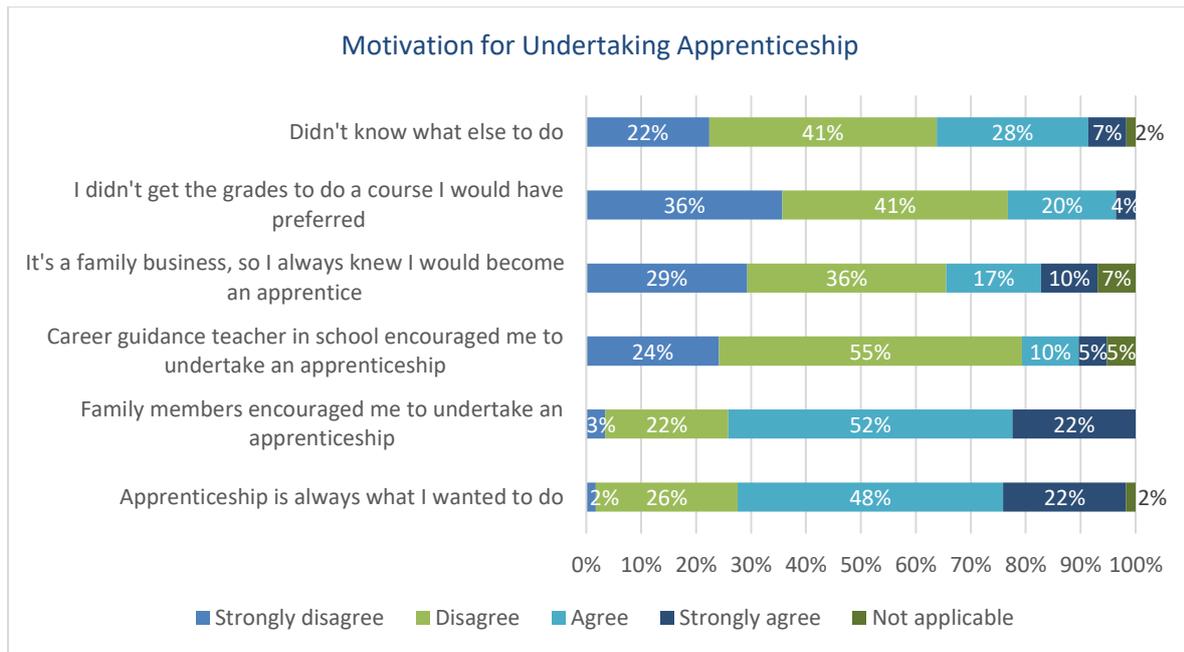


Figure 6: Motivation for undertaking apprenticeship

The findings presented in Figure 6 provide new insight for the motivation of current apprentices. The majority disagree that the decision was a last resort as they neither knew what else to do or did not obtain sufficiently high grades to obtain gain entry to a preferred course. Results clearly defy a common misconception that an apprenticeship is undertaken due to lack of alternatives.

What is clear from the findings is that encouragement tends not to come from career guidance teachers, and instead is through family members. In the context of ensuring a qualified workforce for the future, this issue must be address as a matter of urgency.

Respondents were asked to confirm their opinion on the apprenticeship programme overall.

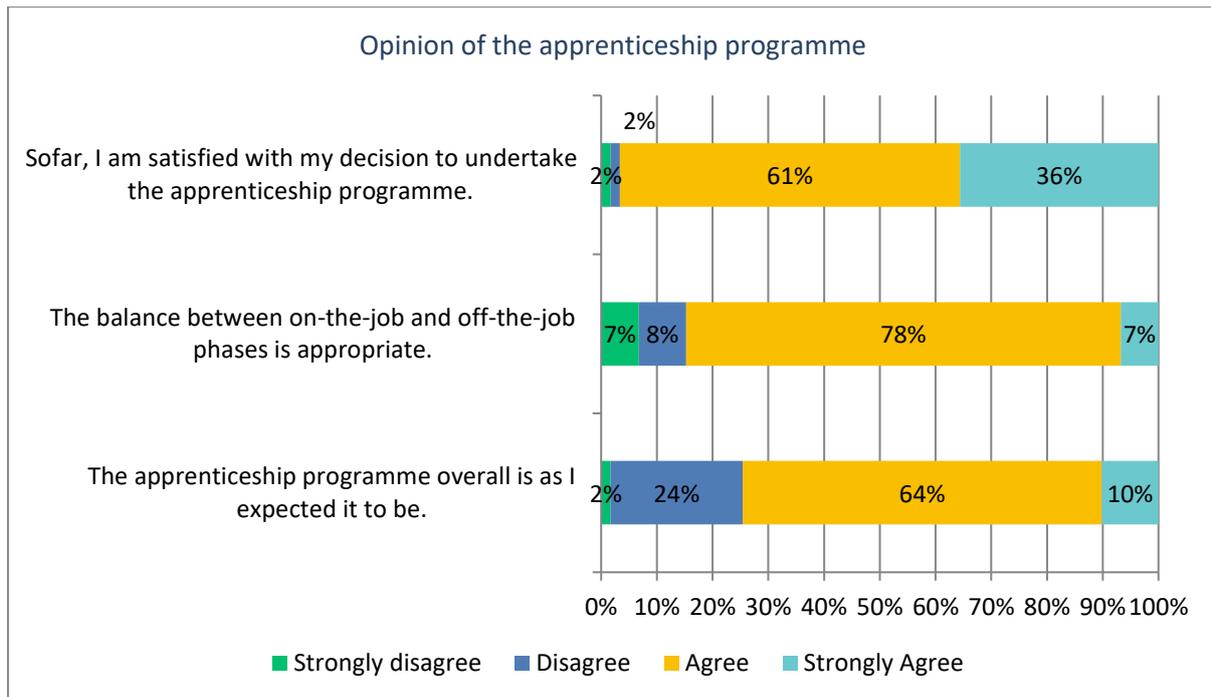


Figure 7: Opinion of apprenticeship programme

As is evident from Figure 7, current apprentices are very satisfied with the programme overall and their decision to undertake it. From the apprentice's perspective the balance between on-the-job and off-the-job is appropriate in the main (85% of respondents). Survey responses confirm that apprentices are able to apply their training centre learning in their jobs, and are provided with an opportunity to undertake a wide range of tasks related to their trade.

As regards off-the-job phases, once again the opinion is generally positive, however two potential red flags emerge from the data presented in Figure 8.

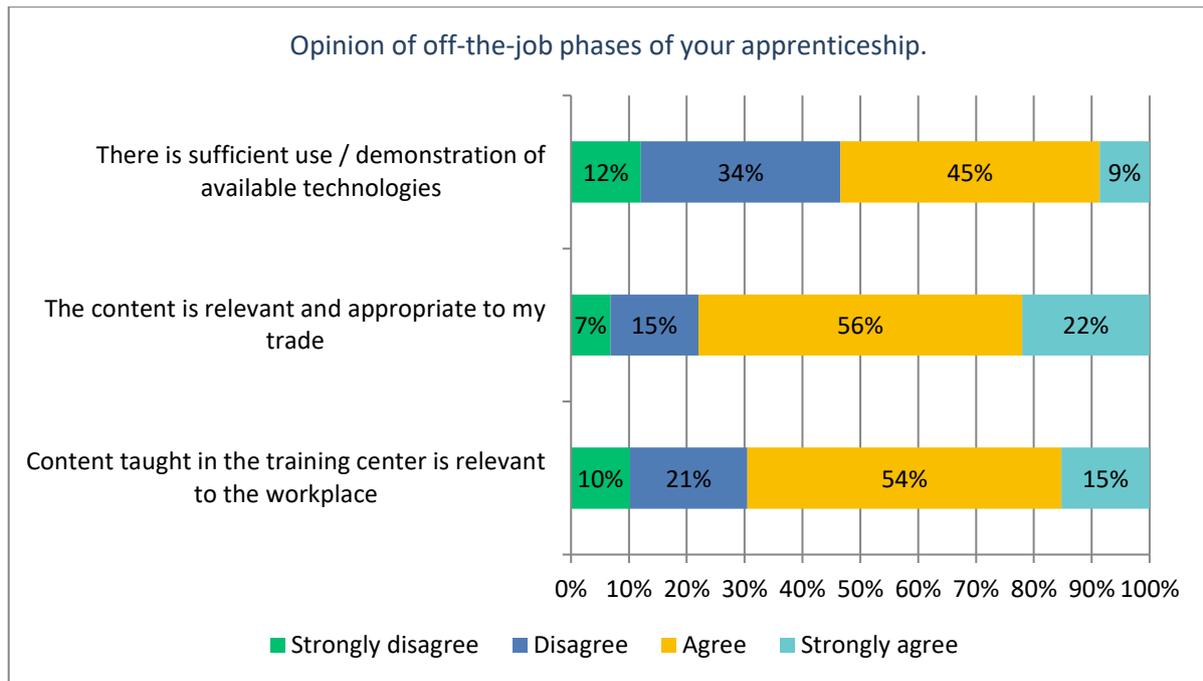


Figure 8: Opinion of off-the-job phases

Firstly, 46% of respondents believe there is insufficient demonstration of available technologies. Given the importance placed on technology within the industry and government to drive productivity in the sector, this is of particular concern.

The second area of concern is that 31% of respondents do not believe that the content taught in the training centre is relevant to the workplace.

Discussion

Though a concerted effort is being made to change the status quo, historically, apprenticeship is a less chosen route for school-leavers in Ireland with preference given to third level programmes (Department of Education and Skills, 2017). Coupled with the poor perception of job security across the construction sector and an irregular organisational structure, the construction labour market has been in disequilibrium for over a decade (Expert Group on Future Skills Needs, 2020). The inverse relationship between construction sector demand for labour and training programme registrations is exacerbated by the employer-led apprenticeship model in Ireland, which is in turn prone to the economic elasticity of the sector (Department of Public Expenditure and Reform, 2019).

From the employers' perspective, a residual reluctance in committing to a four-year training programme continues to act as a barrier to apprenticeship training and a notable shift to sub-contract labour is evident. The economic recession from 2009-2013 required construction companies to adapt their business models for survival and the pivot to reliance on sub-contract labour is now unlikely to

be reversed. From an organisational perspective it may provide a rational strategy to ensure company survival in the short term, however, without employer engagement, apprentices cannot be trained in the current model. The long-term impact and potential cost and implications are thus considerable.

The use of sub-contract labour is a critical component of the construction process however the results of this research confirm that sub-contractors are also not training apprentices in sufficient quantities. Sub-contractors involved in this research are further sub-contracting these trades which is a cause for concern for two reasons.

Firstly, not only will this precipitate a future skills shortage, but also a skills gap. Often these terms are erroneously used interchangeably. A skills shortage implies there are insufficient quantities of a particular skill, whereas a skills gap occurs when a skill relied upon by a company is simply not available within the labour market. Given the four-year qualification cycle the prevalence of skills gaps within construction trades remains a concern.

The second cause for concern of sub-sub-contracting lies in the potential for poorer quality workmanship resulting from the additional layer further from the client. Some interview respondents expressed concern pertaining to the lack of qualification checking on-site through further sub-contracting labour. However, an investigation of this issue lies outside the scope of research, thus remains circumstantial.

From the apprentices' perspective, the findings from this research demonstrate that those that have chosen this career path are satisfied with their choice, and 85% of respondents confirmed they would recommend it to a friend. Those that successfully complete the apprenticeship are awarded a Level 6 qualification on the NFQ. This is an internationally recognised qualification standard that not only provides global opportunities, but also another step up the ladder to higher qualifications.

It is apparent that the labour market for 'wet trades' is in disequilibrium. Significant challenges must be overcome to ensure a sustainable level of qualified workers to achieve the ambitious targets set out in the NDP 2018-2027. The evidence garnered from this research culminated in a suite of recommendations presented to Government, many of which are now being pursued. Furthermore, this research has informed government commentary on apprenticeship planning (Department of Further and Higher Education, Research, Innovation and Science, 2020).

Three priority recommendations and associated actions are presented in the section following.

Recommendations and Action

In the report a number of recommendations were made centred on six key issues. Several of the evidence-based recommendations emanating from this research are, at the time of writing, being

actively pursued by government. The four most significant recommendations that are currently being actioned by government are now presented.

Apprenticeship Model Review

As evident from the findings from the research the current employer-based model of apprenticeship training is not fit for purpose, either in terms of block release to training centres or in some instances the total duration.

The first recommendation made in the research called for the review of the apprenticeship model in Ireland. An open call for stakeholder contribution to the review of apprenticeship was opened in December 2020 and a preliminary report published in February within which a new model of apprenticeship was drafted for discussion, including a more streamlined management and oversight process.

An antecedent to the establishment of the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) is that craft apprenticeships have a structure and governance unlike modern (post 2016) apprenticeships. This contrast is alluded to in the aforementioned *Discussion Paper* released by DFHERIS via discussion of one single governance structure.

Caution is needed however, as it is possible that an attempt to bring craft apprenticeships in line with modern apprenticeships and consequently make employers more susceptible to additional costs and risks. This may result in apprenticeship engagement becoming financially untenable for many employers and subsequently diminish employer engagement.

Education and Training

Another recommendation from the research proposed the inclusion of apprenticeship on the Central Applications Office (CAO) system. At present, apprentices secure a position within a construction company prior to registering with SOLAS, which differs from the for those opting for other third level programmes within Higher Education Institutes (HEIs) in Ireland. This compounds the misperception of apprenticeship as being a second-rate option for potential applicants and somehow lower down on the pecking order for school leavers.

This recommendation is being pursued by government whereby it is intended that with a view to including apprenticeships on the CAO system. Public consultation has taken place and government have indicated that the Apprenticeship Action Plan 2021-2025 will involve an overhaul of the current system for tertiary education to include options for levels 4, 5, and 6, which includes apprenticeship. The new CAO should serve to widen the choice for school leavers and increase the number of people

choosing apprenticeship. Furthermore, this may pave the way for those people wishing to continue their study perhaps to degree level to have a clearer progression route, which was another recommendation emanating from the research.

Incentive Scheme

Government is a key stakeholders in every facet of the construction sector, and for that reason a suite of recommendations was made pertaining to their role. In the first instance it was recommended that supports be provided to construction firms to encourage them to engage apprentices. The July 2021 stimulus package announced the Apprenticeship Recruitment Incentive which provides up to €3,000 per additional apprentice engaged by a firm. This is hugely beneficial in offsetting some of the total cost and should act to encourage more companies to employ apprentices, particularly Small and Medium Sized Enterprises (SME's).

Conclusion

Uncertainty in the construction labour market and the perception of apprenticeship as an inferior career choice for school leavers has culminated in a significant reduction in the number of people choosing an apprenticeship, specifically across 'wet trades'. The reduction in new registrations combined with an evolution in many construction companies' business model favouring sub-contract labour poses a significant threat to the sectors ability to deliver the strategic objectives of the NDP.

The research provided a suite of recommendations based on the evidence gathered from employers and apprentices alike. Several key recommendations have now either already been implemented by government or are under consideration, however, much still remains to be done to ensure that we attract and retain sufficient quantities of apprentices across the trades in question.

The on-going promotion of apprenticeship as a valued mode of learning is of paramount importance, and so too the articulation of opportunities available for suitably qualified tradespeople both at home and internationally. Qualified tradespeople are awarded a Level 6 certificate on the NFQ which also provides ample opportunity to continue to work towards higher qualifications if desired.

The 'wet trades' are fundamental to the provision of the much-needed housing needs of our growing population. The lack of housebuilding over the course of enforced construction sector lockdowns during the Covid-19 pandemic and potential of our qualified workers to either seek work abroad during this period of time presents additional challenges for the sustainable future of our workforce.

While it is encouraging that many of the actions recommended following this research are under consideration, it is imperative that labour market analysis is ongoing to ensure labour market imbalances are addressed.

Acknowledgements

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