Construction Industry Federation

Trades and Apprenticeship Survey 2020

Focus on Wet Trades

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June 2020

This report was undertaken on an independent basis by **Dr. Róisín Murphy**, Senior Lecturer, TU Dublin.

TABLE OF CONTENTS

TABLE OF CONTENTS

FOREWORD - *Danny Murphy*

I welcome this report which follows the 2018 CIF - DIT/TU Report on construction trades and apprenticeship. The purpose of this report is to investigate the causes and implications of the low numbers entering wet trades, which remain subdued compared to registrations at the construction peak in 2006. Registration numbers for wet trades have not increased in line with other construction apprenticeships and economic growth in Ireland.

The purpose of this research, undertaken by Dr. Róisín Murphy on behalf of the CIF, was to undertake a multi-stakeholder analysis, to determine the causes and challenges facing wet trades and apprenticeship in Ireland.

Apprentices are a key component of a vibrant construction industry, and there is a requirement to have a fully functioning and sustainable cohort of skilled tradespersons to meet the industry needs on an ongoing basis. With the low numbers of apprentices entering the wet trades for several years, we can expect shortages in indigenous skills in the future which must be addressed.

By its very nature the construction contracting sector is uncertain territory due to its cyclicality. Findings in this report confirm that following the economic downturn, contractors scaled back their workforce and a new business model has evolved. This has led to a market where contractors now retain a reduced level of direct labour, and employ additional subcontractors under a tight project time frame which has led to diminution of training by SME's. In fact, this research confirms that there are currently five times more wet tradespersons subcontracted than directly employed, with employers noting several reasons for these trends. This leads one to conclude that SME's in particular require substantial supports and incentives in place for change to occur in this regard to ensure a sustainable labour force into the future.

The success of any project is reliant on the knowledge, experience and competence of its workforce, and apprenticeship plays a critical role. A one size fits all approach to the education and training of wet tradespeople is currently not meeting the needs of industry. Qualifications are key to the success and promotion of any employee in any industry and the construction industry is stymied in its range of training options. While apprenticeship is a hugely important and valued mechanism to obtain an international qualification, it is timely to consider additional mechanisms by which recognised qualifications may be attained. The increased use of traineeships should be further expanded as they may offer similar internationally recognised qualifications.

It is encouraging that a large percentage of the apprentices surveyed are satisfied with their choice of the apprenticeship career path route. However serious work needs to be undertaken with school career guidance teachers to encourage not only CAO options in academic careers but also to support careers through the apprenticeship route.

Specific issues are highlighted for each trade and the CIF are committed to finding solutions for each of these trades. The evidence-based research findings from this independent report will support and shape the CIF policy going forward. The recommendations from this report will focus on the next steps for the future of apprenticeships to ensure they remain relevant to industry requirements while maintaining high quality and to ensure the programmes become more technologically advanced as the sector develops.

We are now requesting relevant stakeholders to undertake the following in response to the recommended actions set out in the report:

1. **Undertake an independent review of the apprenticeship model for wet trades**
2. **Expand the number of traineeships to meet industry needs**
3. **Address the needs of the employer and put appropriate supports in place.**

I would like to thank Anthony O'Leary (former chair of ASCA) for instigating this report and championing the professional development of craft apprenticeship.

Danny Murphy

Chairman

Alliance of Specialist Contractors Association (ASCA)

FOREWORD - *John O'Shaughnessy*

This is the second report, commissioned by the CIF, in an effort to understand the issue relating to low apprenticeship registrations. This report focusses on the so called "wet trades" – i.e. brick and stone laying, plastering, painting & decorating and floor and wall tiling. Those in the industry and those who have an interest in the recovery of the residential construction sector all agree that these trades are fundamental to the ramping up of project delivery. Yet, despite many attempts to understand why they are not recovering, to date we have not succeeded. This report, which was undertaken by an independent researcher, provides insight into the issues and potential remedies.

The numbers registering in these trades are generally at 10% the level of registrations in the mid 2000's while other apprenticeships, notably Electrical, are back to sustainable levels. It's clear that if we keep doing things the same way, we will get the same result. We have reached a point where positive action needs to be taken in order to recover these trades. I welcome the work currently being done by the Expert Group on Future Skills Needs which will forecast the skills required out to 2030 which compliments this current work. For these trades, the work of the EGFSN will set a definitive target.

This report sets out a series of recommendations that in my opinion, must be acted upon – there is a clear need to review the current model that takes into account the issues raised in this report and indeed the preceeding report from 2018. Once reviewed and a model emerges that can be supported and deliver the required skills, this must be supported by the State.

Evidence from this report confirms the considerable demand for qualified wet tradespeople in Ireland, which indicates the potential employment and business opportunities available to those opting for a career within these trades.

John O'Shaughnessy

Chair
CIF Education, Training & Skills Sub Committee

EXECUTIVE SUMMARY

The impact of the economic downturn has fractured the construction labour market in Ireland. The decline in people entering construction programmes during the downturn has not recovered sufficiently to meet current demand for construction workers.

The DIT / CIF Trades and Apprenticeship Skills Survey (2018)[1] identified a number of issues facing construction companies in the engagement of skilled personnel and apprentices, however, it was apparent that wet trades in particular continued to experience significant challenges.

Wet trades (bricklaying, floor and wall tiling, painting and decorating, and plastering) are critical to the functioning of the construction industry. The ongoing issues facing wet trades prompted the CIF to commission this independent research to determine the cause and extent of the challenges faced by member companies in respect of these trades specifically.

A multi-stakeholder research approach was adopted involving two surveys administered in the final quarter (Q4) of 2019, following which a number of interviews were undertaken with a wide range of industry stakeholders. The first survey was administered to a selected sample of CIF member companies to determine the level of direct and sub-contract employment and engagement of apprentices, both current and in the medium term, to 2024. The second survey was administered to current wet trade apprentices to ascertain their motivation for undertaking the apprenticeship and their perception of the programme overall. A range of construction industry stakeholders participated in informal interviews to enable further depth of analysis and for the purposes of informing and validating recommendations.

The research demonstrates that the labour market for wet trades is failing. The numbers of new apprenticeship registrations for wet trades plummeted during the economic downturn and has not recovered at the same rate as other construction trades. In the case of floor and wall tiling, no new apprentices have registered since 2012.

The research confirms that companies no longer directly employ wet tradespeople in quantities seen prior to the recession. The severity of the economic downturn has resulted in many construction companies changing their business model to survive, and part of this strategy involves a reduction in direct employment. This situation is not likely to change.

The lack of apprenticeship engagement is a serious concern for wet trades. Respondent companies to this research confirmed that the lack of government incentives, cost of engaging apprentices and duration of off-the-job phases (for smaller companies in particular) act as barriers in this regard. In an employer-led model of apprenticeship training the lack of company engagement has serious implications for the future supply of qualified workers, and thus the ability to ensure the highest quality and value for money in the delivery of construction projects.

Sub-contracting is the predominant mechanism by which wet trades are engaged. Sub-contracting is an essential component of the construction process, however, sub-contractor respondents to the research confirmed that they are not engaging apprentices in large numbers and they too sub-contract wet trades, for similar reasons as main contractors. The sub-sub-contracting of labour in this manner shifts the risk further from the main contractor, and without adequate monitoring may result in diminished quality of output.

[1] O'Murchadha, E and Murphy, R (2018) Trades and Apprenticeship Skills Survey: An Employers Perspective Industry report undertaken within DIT on behalf of CIF.

Apprentice participants in the research tend to have been encouraged into the apprenticeship by family members rather than career guidance counsellors, and have expressed positive views about the programme overall. There are currently no floor and wall tiling apprentices, however, the research confirms a demand for tradespeople in this area, thereby indicating that industry needs are being satisfied outside the apprenticeship system.

The construction industry has undergone a period of significant change over the last number of years and this research indicates that the labour market for wet trades specifically, has not kept pace with the change.

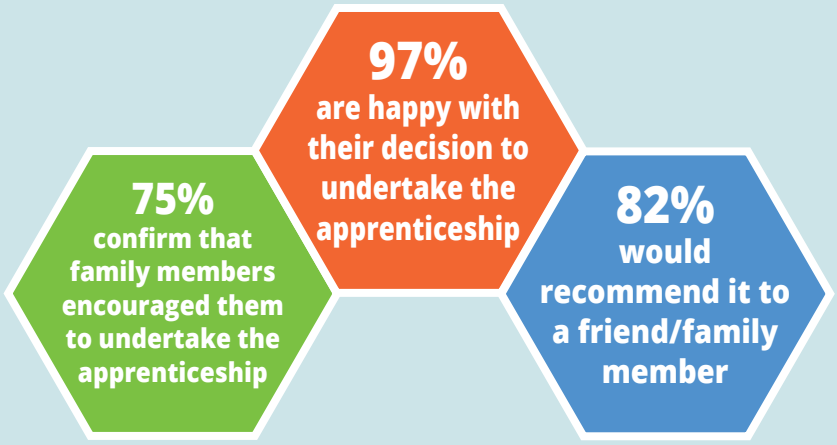
The critical role of wet trades in the structure, thermal efficiency, aesthetic and fire safety of our built environment cannot be overstated, thus it is imperative that current labour market imbalances are addressed as a matter of priority to ensure a sustainable skills base throughout economic cycles.

A multi stakeholder response is required, and a number of recommendations as to how this may be achieved are contained within the report. Recommendations emanating from the findings of the research relate to the current model of wet trade apprenticeship; education and training; incentivising employer engagement; continued awareness of the career and progression opportunities for qualified workers, and improving standards through Construction Industry Register Ireland (CIRI).

KEY FINDINGS

CONSTRUCTION FIRMS

APPRENTICES



1. INTRODUCTION

1.1 Background to the Research

The economy of Ireland underwent a much-analysed, severe and prolonged recession during the period 2008-2013, brought about by a global economic downturn, systemic malfunction in the financial sector and an over-reliance on the property and construction sectors.

The construction sector contributed to the rapid growth of the Irish economy during the Celtic Tiger years, however, the economic downturn had devastating consequences for the sector, most notably in the number of people employed.

Figure 1 **ECONOMIC GROWTH AND CONSTRUCTION EMPLOYMENT[2]**

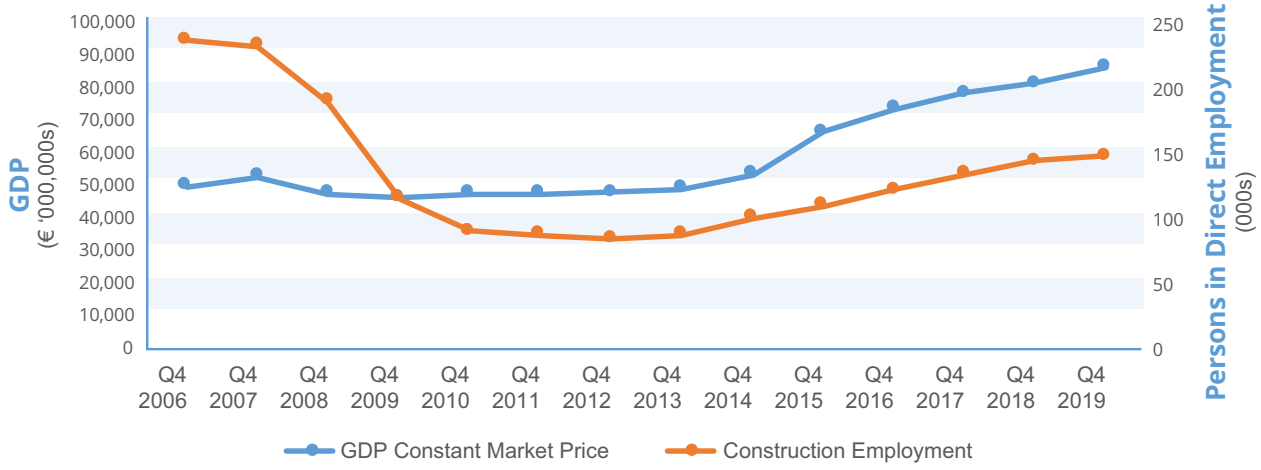


Figure 1 illustrates the demise of the Irish economy and corresponding reduction in construction employment. As is evident, the return to growth in the economy as a whole has not been met by a proportionate increase in construction employment. Despite Ireland being the fastest growing economy in Europe[3] (at the time of undertaking the research) as measured by Gross Domestic Product (GDP), and nearing full employment, construction employment has not returned to pre-recession levels.

The severity of the economic recession caused mass emigration of skilled construction workers, and the resulting perception of construction as an uncertain career was manifested in the plummeting number of school leavers choosing construction programmes. As the recovery takes hold, there remain challenges in relation to the availability of skilled construction workers to meet growing demand.

[2]Quarter 1 (Q1) Annually. Source Central Statistics Office (CSO) accessible at https://www.cso.ie/en/databases/
[3]www.europa.eu

In 2018 the DIT (now TU Dublin) in conjunction with the CIF published the Trade and Apprenticeship Skills Survey report to ascertain the issues facings employers with regard to the recruitment and training of construction trades and apprentices.

The report provided for the first time, insight directly from construction employers which highlighted critical issues facing companies in engaging construction trades and apprentices. The study incorporated analysis across the construction family of trades and several issues were identified as barriers to employing qualified construction trades and apprentices. The barriers outlined were common across all construction trades, however a notable discovery was that while registrations on construction apprenticeship showed signs of recovery, it was not universal across all trades. Most notably, wet trades continued to lag behind in up-take of new apprenticeship registration. The wet trades in question include:

Figure 2 **WET TRADES**

Wet trades are critical in the construction process across every sector of the industry including residential, commercial, productive infrastructure and social infrastructure. Wet trades have always been instrumental in the structure, aesthetic, energy performance and fire performance of buildings, thus the role of these trades in the construction process cannot be underestimated. The capacity of the sector to meet strategic investment priorities is vulnerable to disequilibrium in the construction labour market. The 2018 report highlighted the importance of wet trades in the achievement of objectives outlined in the National Development Plan (NDP), including ambitious but vital housing targets to 2027.

In order to meet future construction demand, it is essential to have a functioning and sustainable labour market to reduce the severity of fluctuations across economics cycles. An ongoing supply of new entrants into the sector is crucial in this regard. New registrations on wet trade apprenticeships however, remain sluggish and have not recovered to the same extent as other construction apprenticeships. Perhaps the most notable example is in floor and wall tiling, wherein there have been no new registrations since 2012.

The ongoing issues facing wet trades provided the impetus for the current research. The purpose of this research is to provide deeper insight into these trades to uncover the critical challenges from a multi-stakeholder perspective and to identify mechanisms by which current labour market imbalances may be addressed.

The current model for the education and training of wet trades is predominantly through the employer led apprenticeship model, and the next section provides an overview of the structure of apprenticeship in Ireland.

Wet trades have always been instrumental in the structure, aesthetic, energy performance and fire performance of buildings, thus the role of these trades in the construction process cannot be underestimated.

1.2 Apprenticeship in Ireland

Apprenticeship is a mode of learning which combines workplace learning with formal learning undertaken within a training center. Most apprenticeships are of a 4-year duration which are categorised into "Families" of trades as follows:

- **Biopharma**
- **Construction**
- **Electrical**
- **Engineering**
- **Finance**
- **Hair**
- **Hospitality and Food**
- **ICT**
- **Logistics**
- **Motor**
- **Property Services**
- **Sales**

The apprenticeship model for training and educating construction trades is an employer based model in which the apprentice is required to have employment with a suitable construction company prior to registering their apprenticeship with SOLAS. The training programme is called the Standards Based Apprenticeship (SBA) with apprentices required to obtain a minimum standard in training center assessment in addition to a minimum number of weeks during the on-the-job phases as presented in figure 3.

Construction apprentices are normally awarded a certificate at level 6 on the National Framework of Qualifications (NFQ)[4] , however new apprenticeships may be awarded at various points up to level 10 on the framework. The apprentice is paid in accordance with the Sectoral Employment Order (Construction Sector) 2019[5]. A full analysis of apprenticeship in Ireland and an international comparison, is provided in the recently published spending review report by the Government of Ireland (2019) ***A Review of Participation and Costs of Apprenticeship***[6].

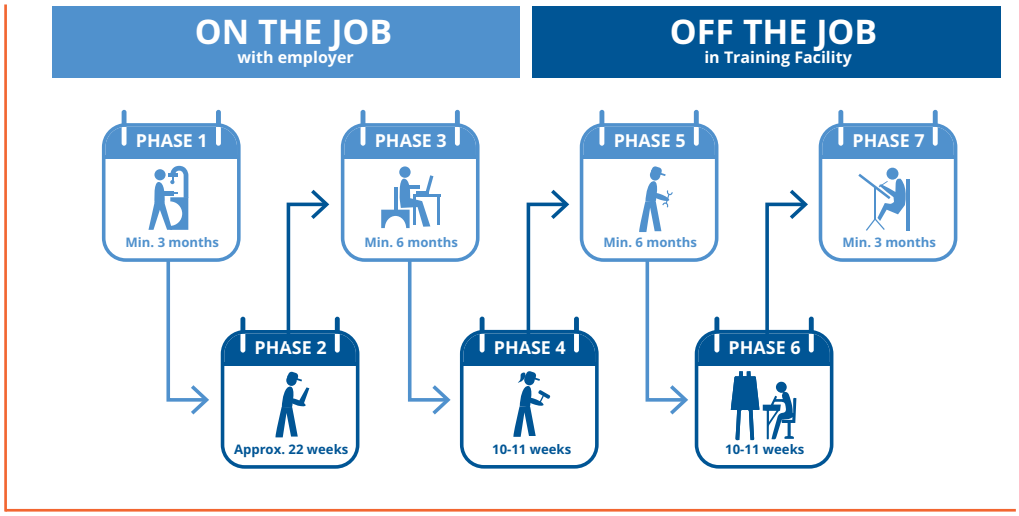
A career as a construction tradesperson provides ample opportunities to progress in the sector and many tradespeople go on to construction site management, construction management, project management and company directorships. Qualified construction personnel have potential to earn good salaries both at home or abroad, and are in demand across many industry sectors in addition to construction.

The down-side of the employer-based model of apprenticeship, however, is its cyclicality. In order to register as an apprentice, you must have secured employment within a construction company, however, the capacity of employers to engage an apprentice is impacted by economic cycles.

The severity and longevity of the recent economic recession in Ireland thus had a devastating impact on construction apprenticeships, which is particularly pronounced across wet trades.

The following section provides a closer examination of the trends in this regard.

Figure 3 **APPRENTICESHIP PHASES** (Source www.apprenticeship.ie)

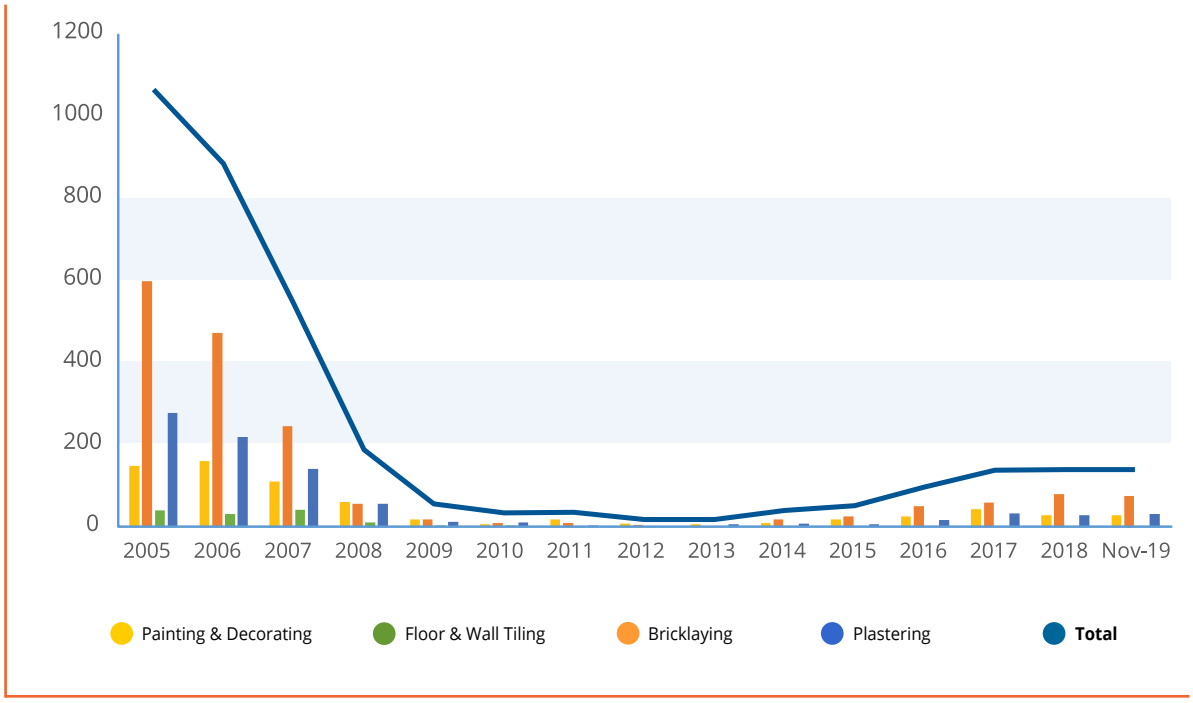


[4] National Framework of Qualifications accessible at www.nfq.ie
[5] Sectoral Employment Order for Construction accessible at www.workplacerelations.ie
[6] Government of Ireland Spending Review 2019, "Review of Participation and Costs of Apprenticeships" accessed at igees@gov.ie

1.3 Wet Trades and Apprenticeship

The previous section noted the importance of wet trades in the construction process and in particular the capacity to deliver the volume and value required of the NDP to 2027. The DIT/CIF (2018) report confirmed that in spite of recovery across a number of construction trades, registrations onto wet trade apprenticeships remains sluggish. Details of ***new wet trade apprentice registrations*** is presented in figure 4.

Figure 4 **NEW WET TRADE APPRENTICESHIP REGISTRATIONS AS AT NOVEMBER 2019** (Source: SOLAS, 2019)



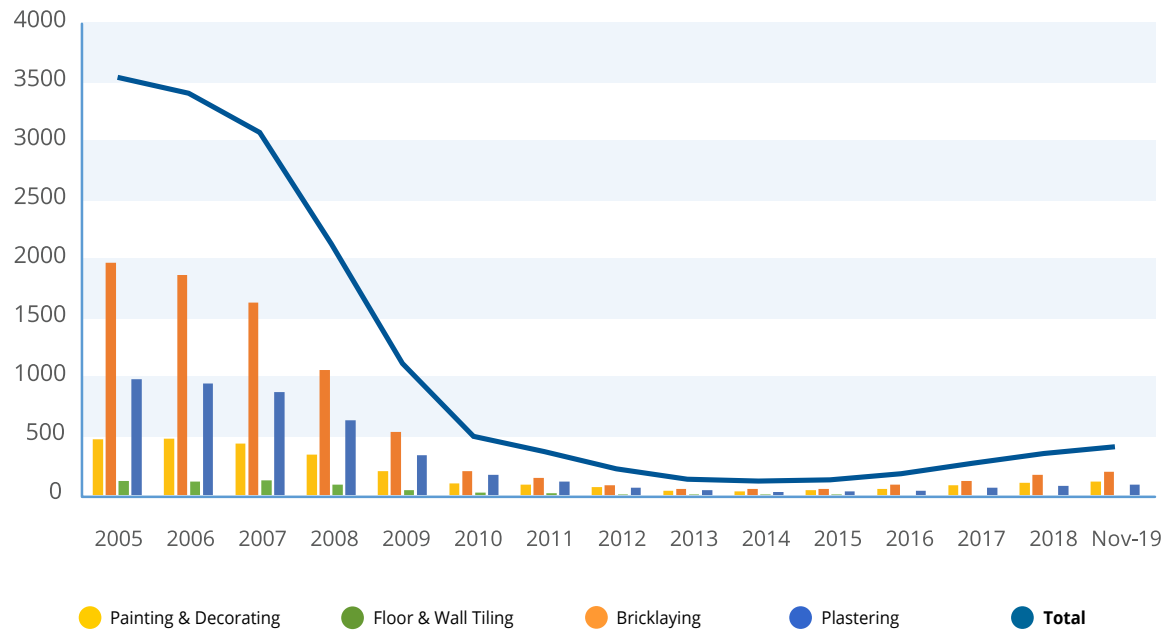
The number of new wet trade apprenticeship registrations started to decline prior to the recession due to ample alternative career opportunities available post-second level, and the overall negative perception towards apprenticeship in Ireland. It reached the lowest point in 2012 at the trough in the economic cycle. As recovery took hold from 2014 new registrations on wet trades gradually increased, however, they have yet to return to 2008 levels.

There have been no new apprentice registrations on floor and wall tiling since 2012, therefore the total number presented in figure 4 is reflective of only three of the four trades under examination from that date onwards.

As recovery took hold from 2014 new registrations on wet trades gradually increased, however, they have yet to return to 2008 levels.

While figure 4 provides the data in respect of new apprentice registrations, figure 5 illustrates the ***overall apprentice population*** across wet trades.

Figure 5 **TOTAL POPULATION OF WET TRADE APPRENTICE AS AT NOVEMBER 2019** (Source: SOLAS)



The data for the overall population of apprenticeship presented in figure 5 demonstrates a similar trend to that of new registrations (figure 4).

Wet trades perform a crucial function across all construction sectors, and the slow recovery of these trades raises questions as to the capacity of the construction sector to meet our housing needs and obtain value for money in the roll-out of the NDP.

It is reasonable to suppose that changes in the industry such as technological advances and modular construction may result in a structural change in the labour market. However, it is remiss to conclude that qualified personnel will not be demanded in the future as a consequence of technological advances. Instead it is likely that opportunities will arise in a manufacturing context (e.g. modular construction in a factory environment) if on-site construction diminishes. While the consequences of these trends are evident, the causes are less clear, hence the rationale for undertaking an in-depth exploration of the issues facing wet trades from a multi-stakeholder perspective. The overall objectives of the research are thus:

1. to determine the ***current level of employment and apprentice engagement*** of CIF companies
2. to identify the ***critical issues facing employers*** engaging wet trades
3. to gain ***apprentices' perspective*** on their motivation and experience of undertaking the apprenticeship
4. to identify mechanisms to ***address current wet trade labour market deficiencies***

An outline of the methodology employed for the purposes of the research is provided in the next section.

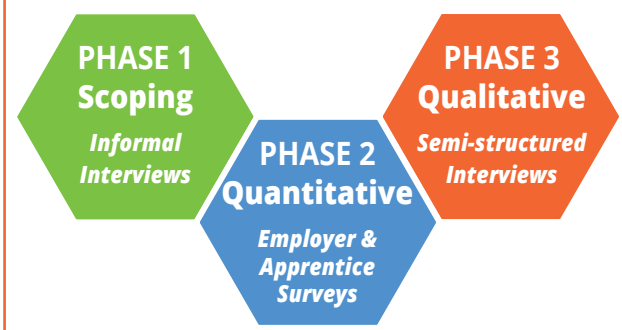
1.4 Research Methodology

While a number of existing studies analyse construction labour market trends, to date, no empirical investigation has been undertaken specifically relating to wet trades in Ireland. Limitations exist in the nationally available data as wet trades are aggregated (due to low numbers) which further compounds the problem.

This research was commissioned by the CIF, but it has been undertaken on an entirely independent basis by the author.

A key objective of this research is to address the void in available knowledge pertaining to wet trades, and to that end a multi stakeholder approach was applied in three phases, as outlined in figure 6.

Figure 6 **RESEARCH METHODOLOGY**



1.4.1 Scoping Phase

The scoping phase involved a number of key stakeholders across industry and trade associations to ensure a broad range of perspectives were incorporated for the development of a questionnaire for phase two.

1.4.2 Quantitative Phase: Survey

The quantitative phase consisted of two elements, namely an online survey of CIF member companies, and also a survey of current apprentices registered on the trades under scrutiny. Data was collected in the final quarter (Q4) of 2019.

Firstly, an online survey was administered to CIF member firms, whereby a single respondent per firm was invited to participate on behalf of the company. Selecting a single respondent per company ensured no double counting could occur.

Furthermore, the sample was limited to companies that engage wet trades and included:

- **Main contractors**
- **Specialist sub-contractors**
- **House Builders**

It should be noted that there is considerable variety in what defines a main contractor (including general contractors and possibly house builders also), and this should be borne in mind in the context of research findings.

Respondents were asked to opt in to undertaking the survey and confidentiality of responses was assured. Aggregated responses are presented in the report such that no individual respondent is identifiable in the presentation and analysis of findings.

Table 1 outlines the total sample population and overall response rate achieved.

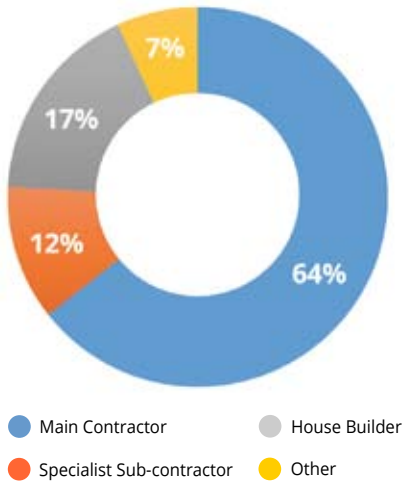
Table 1 **CIF MEMBER COMPANIES AND RESEARCH RESPONSE RATE**

Total Number of Target Companies for Research	**936**
Total Number of Usable Responses	**174**
Research Response Rate	**18.5%**
Multiplier applied (rounded up)	**5.4**

The response rate attained is considered representative of the overall sample population. The majority of data presented in the report is reflective of that obtained directly from respondents. However, it is possible in some instances to gross this data up to represent the overall sample population by applying a multiplier of 5.4. In instances where a multiplier has been applied, it is clearly noted in the report, and all other data is the actual responses received from 174 CIF member companies.

Respondents represent the three main categories of construction company, and the proportion of usable responses per category of work is presented in figure 7.

Figure 7 **PARTICIPANT FIRM BY CATEGORY OF WORK**



As is evident from figure 7, each of the main employers of wet tradespeople and apprentices are represented in the research. Those in the "other" category include related areas of work within wet trades, such as materials suppliers and manufacturing.

The primary location of respondents companies is provided in figure 8, from which it is evident that a varied geographic location is represented in the research.

Participants represented firms of all sizes (see figure 9). The largest proportion of respondent companies are small in size, which is reflective of the industry as a whole.

Figure 8 **PARTICIPANT FIRM BY PRIMARY GEOGRAPHIC LOCATION**

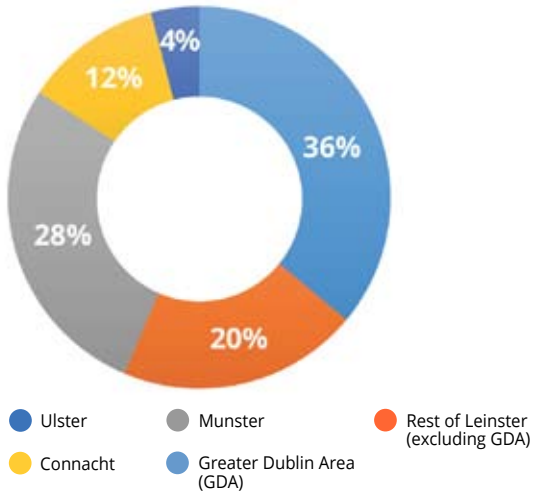
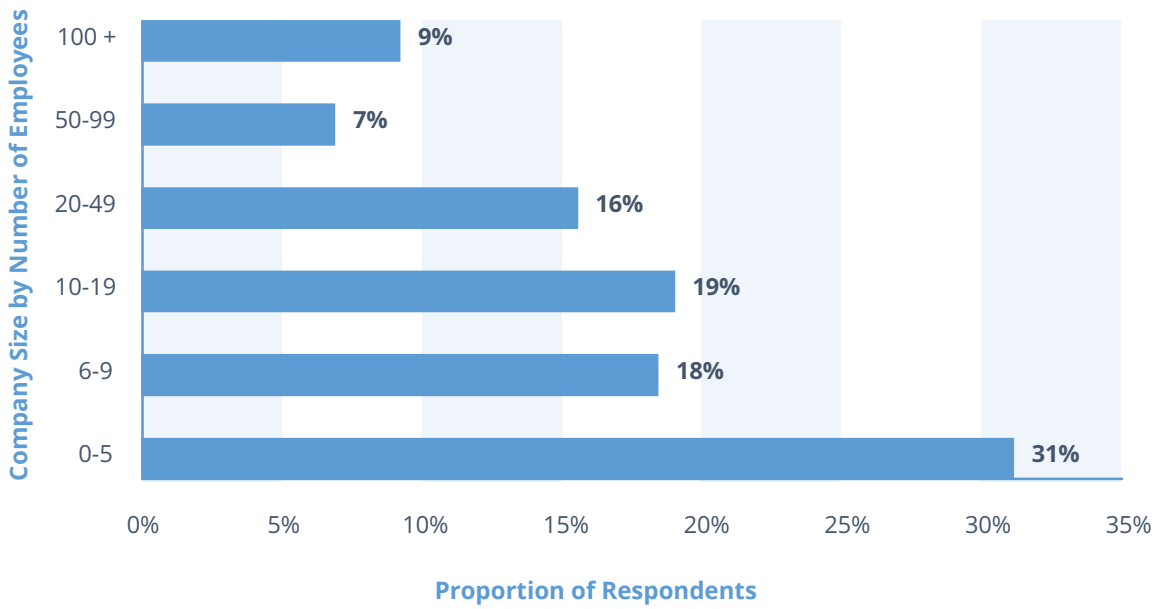


Figure 9 **PARTICIPANT COMPANY SIZE**



The preceding figures thus confirm that the response rate to the employer survey is representative of the overall population, incorporating a considerable number of CIF member firms (174) of various sizes across Ireland.

A second survey was developed and administered to a selected sample of apprentices based in Dublin and Cork undertaking apprenticeships in bricklaying, painting and decorating and plastering (there are currently no registered floor and wall tiling apprentices). Apprentices undertaking either phase 4 or 6 of the apprenticeship were asked to participate in the survey, as these groups are at an advanced stage of their programme and have experience of both on-the-job and off-the-job phases.

Apprentices were invited to undertake a short survey and were notified that participation was entirely voluntary with no obligation to participate. As was the case in the employer's survey, anonymity was assured and aggregated data is presented in the report such that no individual respondent is identifiable. Details pertaining to sample size and response rate are provided in Chapter 3 of the report.

1.4.3 Qualitative Phase: Stakeholder Interviews

While the quantitative phases obtained considerable evidence pertaining to the wet trade apprenticeship and employment, it was supplemented by insight garnered from the qualitative phase, which involved a number of semi-structured interviews with key stakeholders, including:

- **CIF Committee Chairs**
- **Education and training providers**
- **Employers**
- **SOLAS**
- **Trades Associations**
- **Union representatives**

This phase provided the opportunity to gain further understanding of the issues but also to solicit suggestions as to how current wet trade labour market imbalances could be addressed. This was particularly important in the derivation and validation of recommendations presented in the final chapter of the research. A full list of contributors is contained in Appendix I.

1.5 Structure of the Report

- Chapter 1 **Introduction**

Chapter 1 provides context and rationale for the research. An overview of construction output and employment in addition to an analysis of wet trade apprenticeship in Ireland is provided. Following which details of the research strategy employed are confirmed.

- Chapter 2 **Demand for Wet Trades**

This chapter commences with analysis of each wet trade. Results of the employer survey are presented in addition to an analysis of the critical issues facing employers of wet trades. Initially each trade is considered individually prior to a comparative analysis across wet trades. Barriers to employment, as perceived by respondent companies, close out this chapter.

- Chapter 3 **Apprentices Perspective**

Chapter 3 presents results and analysis of the survey conducted on current apprentices undertaking phases 4 or 6 of wet trade programmes. Issues such as motivation for undertaking the apprenticeship and perception of the apprenticeship overall are discussed.

- Chapter 4 **Future Outlook for Wet Trades**

Chapter 4 presents confirmation of future employment and apprentice engagement demand projections based on data obtained from respondent companies. A thematic analysis of issues derived from stakeholder participation and consultation is then provided.

- Chapter 5 **Recommendations**

The final chapter provides a number of recommendations for consideration arising from the research.

2. CURRENT DEMAND FOR WET TRADES

2.1 Introduction

This chapter provides an analysis of findings derived from both the quantitative and qualitative phases of research conducted on CIF member firms in relation to the following wet trades:

- **Bricklaying**
- **Floor and wall tiling**
- **Painting and decorating**
- **Plastering**

The chapter commences with the presentation of data obtained which confirms the number of people directly employed, number of apprentices currently engaged and the number of people sub-contracted across these trades by respondent companies. In the first instance, each trade is described and data presented individually.

While each trade faces unique challenges and opportunities, a number of common issues arise of relevance across all four in question. Thus a comparative analysis is provided to clearly highlight the current labour market trends prior to a detailed analysis of the issues arising from both phases of data collected from employers.

The chapter concludes with a discussion of future trends for the trades in question, derived from survey responses of projected additional employment between 2020-2024.

Respondents to this research directly employ a total of 278 bricklayers.

2.2 Wet Trades Employment and Apprenticeship in Numbers

2.2.1 Bricklaying

The craft of bricklaying is crucial within the construction industry with demand emanating from every sub-sector, from residential to civil engineering. People qualified in the trade are generally involved in building and setting out, but are also engaged in specialist areas such as arch construction, drainage layouts and decorative brickwork.

Employment information pertaining to the trade is merged with plasterers in the publically available data, which is a limitation in classifying the trade-specific trends. However, the data reported in the latest National Skills Bulletin[7] indicates that there were a total of 11,200 people employed across these trades in 2018, with an average growth rate of 16.1% between 2013 and 2018.

Respondents to this research directly employ a total of 278 bricklayers, across 58 companies, or 33% of respondent firms. However, based on the response rate received it is possible to apply a multiplier to reflect the overall population and in so doing, it is logical to conclude that in excess of 1,500 bricklayers are employed by CIF member companies.

At present, respondent firms directly train 19 apprentices in bricklaying within nine companies (5% of respondent firms). The significant reduction in the proportion of companies training apprentices compared to employing qualified trades people in this area is notable. Company engagement in training apprentices is fundamental for the future of the trade, and while the trade is used across all construction sectors, the residential sector in particular relies heavily on bricklayers.

Participant companies that train bricklaying apprentices (9 companies), tend to be large main contractors with in excess of 50 employees. Survey results show that these companies undertake a significant proportion of their workload within the residential sector and are primarily based in the Greater Dublin Area (GDA).

[7] National Skills Bulletin 2019, National Skills Council and Solas

Of those companies that do not engage apprentices, 72% never have trained apprentices in this trade. It is interesting to note that among this group of respondents that have never trained apprentices, company size is not the key determining factor, as while 33% employ fewer than 5 people, a similar proportion employ in excess of 20 employees.

A number of respondents (45) noted that their company does not currently train apprentices in this trade, however they previously have done so. 40% of these respondents employ fewer than 10 people, and one possible reason why they no longer train apprentices may be that the economic recession resulted in organisational retrenchment, and past company capacity to train may no longer be the case.

In terms of sub-contracted labour, respondents to the research employ 807 bricklayers.

Figure 10 illustrates the overall demand for bricklayers based upon responses from participants.

Figure 10 **BRICKLAYING EMPLOYMENT AND APPRENTICES**

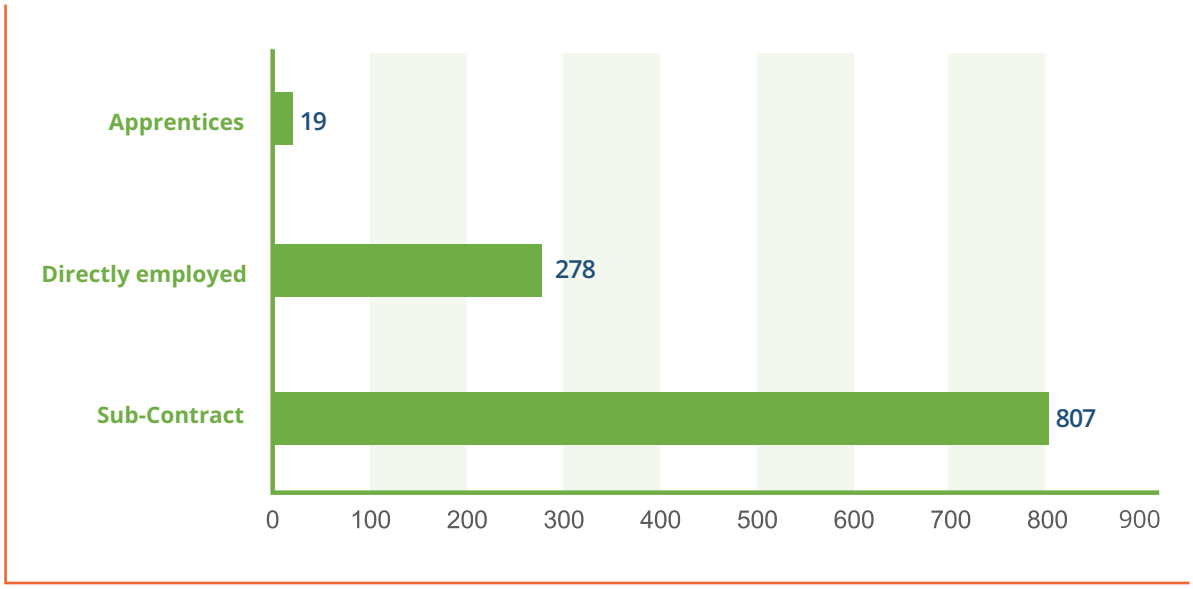


Figure 10 presents the stark reality that construction companies are relying heavily on sub-contract labour rather than direct employment.

In addition, from the figure it is clear that the number of apprentices currently engaged within these companies represents less than 2% of the overall number of qualified employees demanded, which undoubtedly has implications for the future supply of qualified labour. To avoid the possibility of double counting, no multiplier has been applied to the data contained in figure 10, as it is highly likely that the same sub-contract labour is being used by a number of companies.

In conclusion, it is clear that there remains a strong demand for the bricklaying trade, however the mechanism by which people are engaged has shifted from direct employment to sub-contracted.

The implication of these labour market trends and mechanisms by which they can be addressed are presented in chapter 4.

Construction companies are relying heavily on sub-contract labour rather than direct employment.

2.2.2 Floor and Wall Tiling

The floor and wall tiling trade has been devastated by the economic recession, both in terms of the number of people engaged directly, and the enormous reduction in the number of people taking up this apprenticeship.

A total of 50 floor and wall tilers are employed directly across respondent companies (19 respondent companies), the lowest number across all of the wet trades under scrutiny. When the multiplier is applied to this sample, it is reasonable to conclude that up to 270 floor and wall tilers are employed within the sample population overall. There remain limitations in the available national statistics for this trade due to the aggregation of data with other craft trades, therefore determining the nationwide figure for employment in the trade specifically remains challenging.

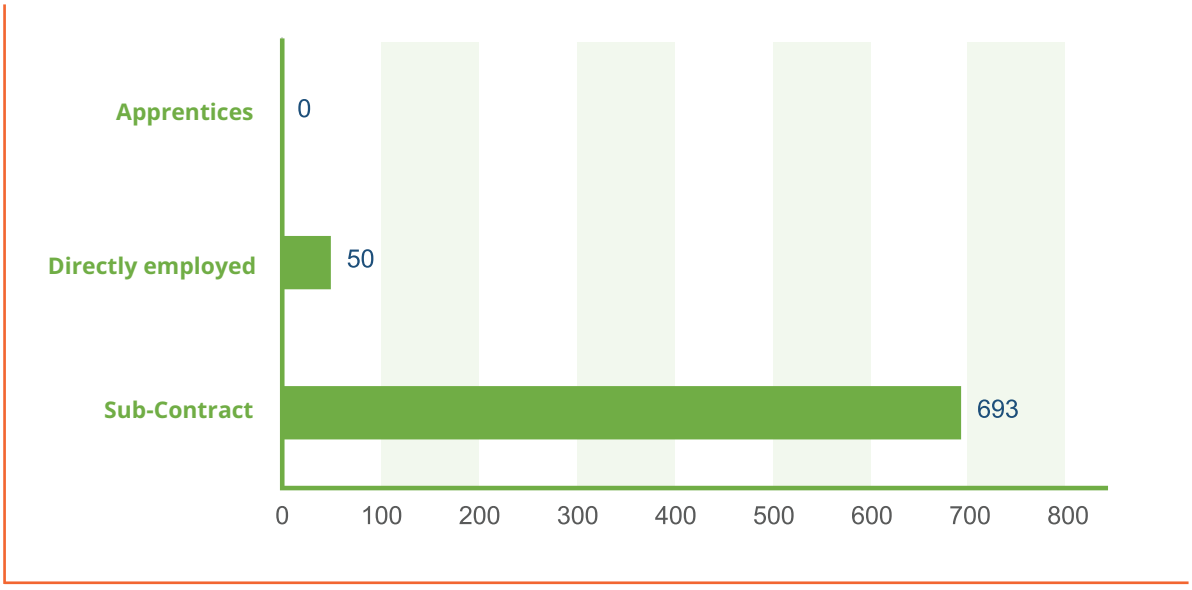
Of the 19 respondent companies to this research that directly employ floor and wall tilers, 74% classify themselves as main contractors, with their main location of work in the GDA (58%). These companies are of varying sizes and undertake a large proportion within the residential sectors (private and public sectors).

At present no respondent company currently trains apprentices in floor and wall tiling and 95% of respondent companies never have.

In terms of sub-contract labour the situation is considerably different. Findings from the survey confirm that 693 floor and wall tilers are currently employed on a sub-contract basis for this trade amongst participant companies. This clearly indicates a demand for floor and wall tilers, however, the lack of apprentices is a cause for concern as regards capacity to meet demand going forward.

Figure 11 provides an overview of the current labour market for floor and wall tiling across research participant companies.

Figure 11 **FLOOR AND WALL TILING EMPLOYMENT AND APPRENTICES**



As is evident from figure 11, sub-contract labour is the predominant mechanism by which floor and wall tilers are engaged, with no immediate reversal of this trend likely given the ongoing lack of apprentices being trained. There is clear demand from industry for tiling skills, however the lack of engagement in apprenticeship training for this trade highlights an anomaly. It may be that for floor and wall tiling, the current model of apprenticeship is not the standard required of industry, or the training provided by manufacturers is sufficient to meet industry needs at present. A fuller exploration of the implications of these trends is presented later in the chapter.

2.2.3 Painting and Decorating

Painting and decorating is the largest wet trade by numbers employed. Painters and decorators work across every sector of the construction industry and undertake a number of tasks from painting, preservation, silk screening, gilding, and signage, in addition to industrial painting. Industrial painting is among the growth areas for the trade, driven by hi-tech companies operating in Ireland in addition to data centers, pharmaceutical and hospitals all of which require specialist skills in this area. This is an important consideration going forward in the development of education and training programmes to suit industry needs.

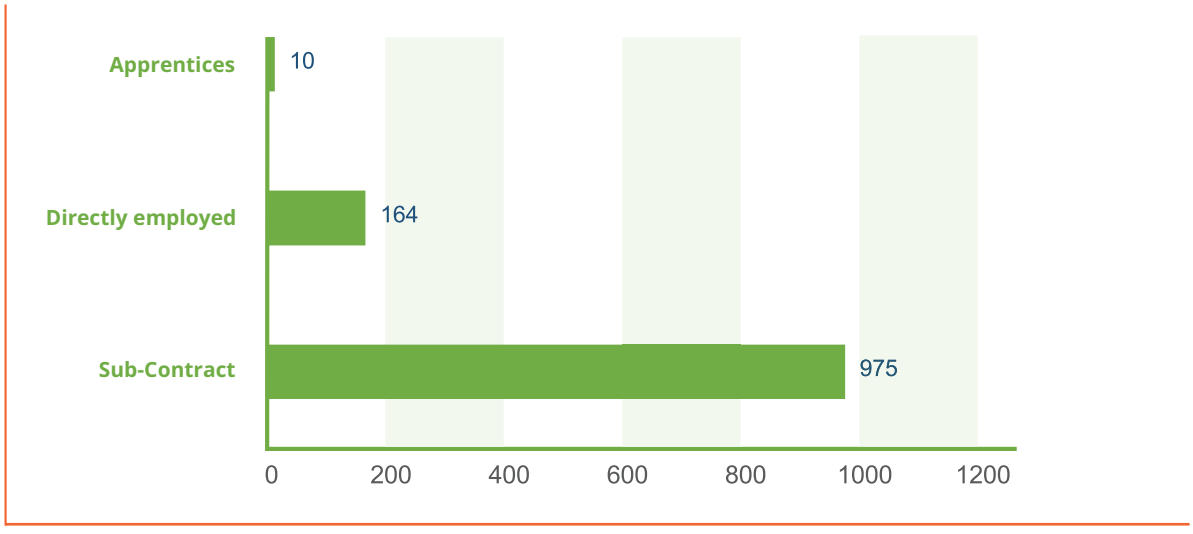
Respondents to this research currently directly employ 164 painter and decorators nationwide. It is reasonable to apply the multiplier to gross the figure up to the population as a whole, bringing the projected total to 886 people in this instance.

In stark contrast, however, only 10 painting and decorating apprentices are currently being trained by three specialist-contractor companies involved in the research. This is an alarming discovery and is demonstrative of a pattern previously outlined of construction companies not engaging apprentices. 92% of respondents noted that they never trained painter and decorator apprentices.

In contrast to the minimal number of apprentices, survey respondents confirmed that 975 painters and decorators are currently being sub-contracted. Once again, the pattern of reliance upon sub-contractors is evident.

Figure 12 provides an overview of employment and apprenticeship engagement for painting and decorating.

Figure 12 **PAINTING AND DECORATING EMPLOYMENT AND APPRENTICES**



Only 10 painting and decorating apprentices are currently being trained by three specialist-contractor companies involved in the research.

Figure 12 clearly points to the pre-dominance of sub-contracting as the mechanism by which painting and decorating is undertaken, with very few main contractors engaging the trade directly.

The implications of these findings are discussed in a later section.

2.2.4 Plastering

Plasterers are involved in a range of activities within the construction industry and are demanded across all sub-sectors, and work on internal as well as external surfaces and ceilings. People involved in this trade may also specialise in molding, slating, and decorative plasterwork. As noted previously, employment in the plastering trade is aggregated with bricklayers therefore there are some limitations in the nationally available data.

Respondents to this research currently directly employ 124 plasterers, which if the multiplier is applied, is grossed up to 670 people over the population as a whole.

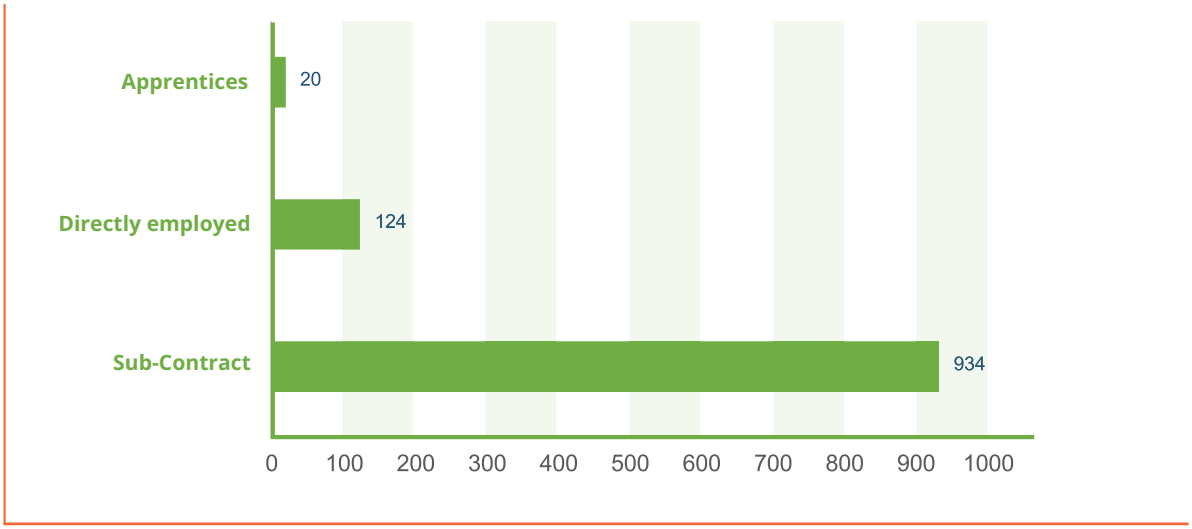
Respondent companies currently train 20 apprentices in this craft, and these firms tend to be plaster manufacturers rather than main contractors.

Interestingly, 20% of respondents noted that they previously did train apprentices in this trade, of which 87% are main contractors and the remainder are house builders.

In terms of the use of sub-contract labour, the trends for reliance on sub-contract labour are evident within this trade also, as respondent firms confirmed that they currently sub-contract 934 plasterers. Once again, a multiplier cannot logically be applied to this figure as it is highly likely that these people work across multiple companies.

Figure 13 provides the summary of employment and apprentices in the plastering trade.

Figure 13 **PLASTERING EMPLOYMENT AND APPRENTICES**



Respondents to this research currently directly employ 124 plasterers and currently train 20 apprentices in this craft

2.3 Analysis Across Wet Trades

The preceding analysis provided insight into current engagement of tradespeople across the wet trades. A distinct pattern is evident in the lack of engagement of apprentices and reliance upon sub-contract labour across all four wet trades. There are currently five times more wet tradespeople sub-contracted than directly employed across respondent companies. These findings are hugely important as the shift represents a structural change in the nature of engaging wet trades in the construction industry in Ireland. As with any structural labour market change, it is unlikely to reverse over time without intervention.

The findings are illustrated in figure 14.

Figure 14 **APPRENTICESHIP, DIRECT AND SUB-CONTRACTED EMPLOYMENT OF WET TRADES**

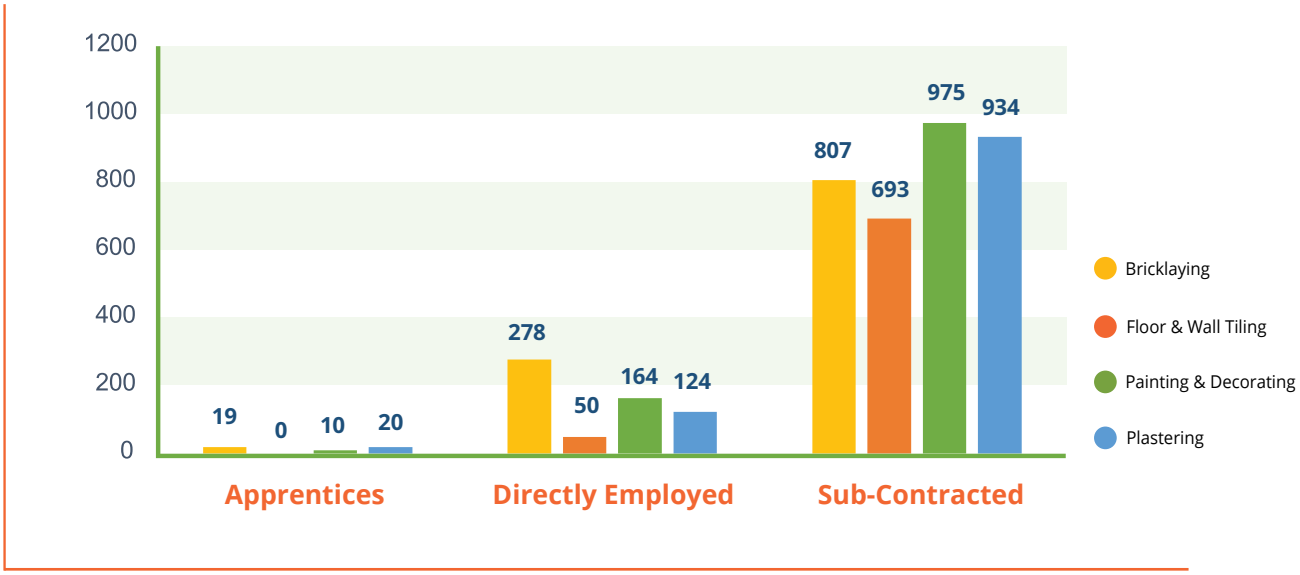


Figure 14 displays the stark reality of the construction labour market as confirmed by respondent companies.

The reliance on sub-contract labour is clearly evident, which gives rise to a number of potential issues, not least because sub-contractors tend not to train apprentices. One interview respondent noted that:

"In the current system, wet trades are employed by large numbers of smaller sub-contractors who may not have a full time foreman on site, many of the workers are sub-sub-contractors and not directly employed .. sub sub-contractors don't have time for training apprentices and are not prepared to do the paper work involved".

Anthony O'Leary, D.D.O'Brien and Company Ltd.

On closer examination of the survey data, 85% of participant specialist sub-contract companies sub contract labour thus supporting this proposition.

The use of "sub-sub-contractors" results in the person undertaking a task being another step further removed from the main contractor, giving rise to the potential for non-qualified workers to be engaged, perhaps unbeknown to the main contractor. Interview respondents were strongly of the opinion that qualifications were seldom requested on site and the use of sub-sub-contract labour further enabled the situation. Potential consequences for quality and standards thus arise.

While self-employment is preferred by many (and a career in construction provides numerous opportunities for people to own their own business), the circumstance whereby this is enforced on qualified personnel who otherwise would favour direct employment may act as a disincentive to potential new entrants into the sector. Furthermore, wider implications for the industry as a whole were noted as follows:

"The incidence of precarious work in the sector is high and remains elevated compared to pre-crisis levels. This extends to a number of contract types and employment relationships including part-time work, temporary contracts and bogus self-employment. Worker precarity is detrimental to sectoral productivity. It follows that policy measures that address this will be productivity enhancing."

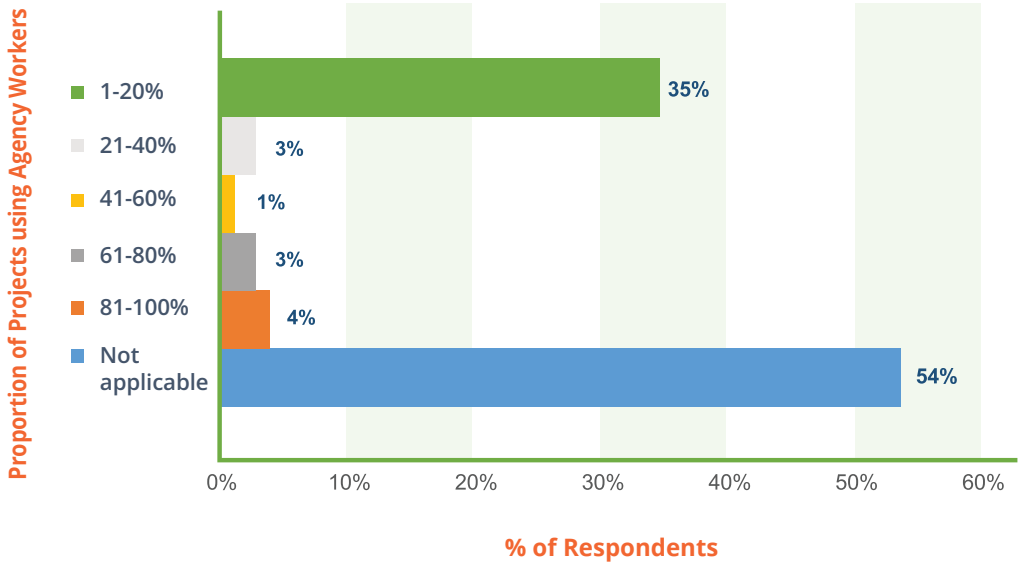
Liam Bernie, on behalf of ICTU.

While it is likely that a portion of self-employment in the sector may be precarious, there remains limited reliable data quantifying the extent of bogus self-employment in in the construction industry in Ireland.

A final component of the labour force which must be explored is agency staff.

Figure 15 confirms the proportion of work undertaken by agency staff within respondent companies.

Figure 15 **PROPORTION OF PROJECTS USING AGENCY WORKERS**



A considerable number of participant companies (46%) confirmed that agency staff have been used in the last year, with 35% of respondents noting that agency staff were used on up to 20% of their overall workload. However, over half of respondents to the research confirmed that they had not engaged agency staff at all within the preceding year.

Of those that engage agency staff, the main reasons cited (in rank order) are:

Infrequent demand for wet trades within the industry

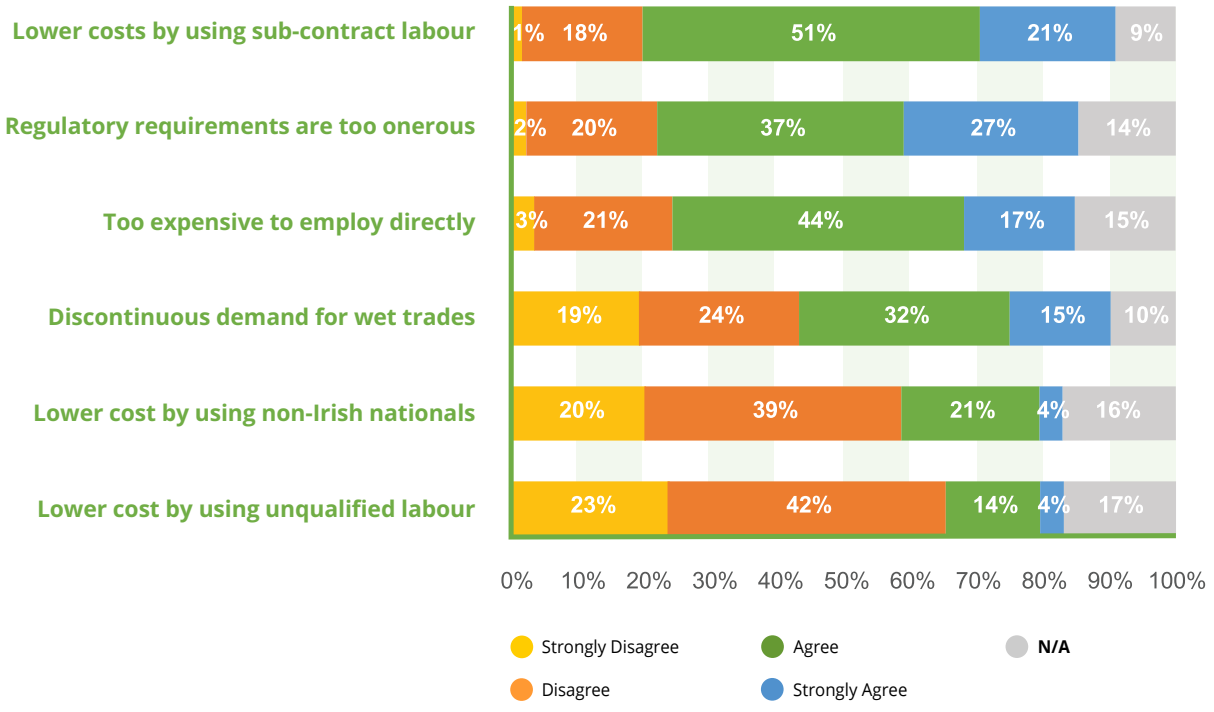
Most cost effective for our company

To avoid onerous legislative requirements for employees

2.3.1 Barriers to Direct Employment and Apprenticeship Training

In order to more fully understand the reasons why companies no longer directly employ personnel to the same extent as prior to the recession, respondents to the survey were asked their opinion on barriers to direct employment. The results are provided in figure 16.

Figure 16 **BARRIERS TO DIRECT EMPLOYMENT OF WET TRADES**



The barriers presented to respondents reflected those identified during the scoping phase of research. Results show the top three barriers to direct employment as:

Lower costs by using sub-contract labour

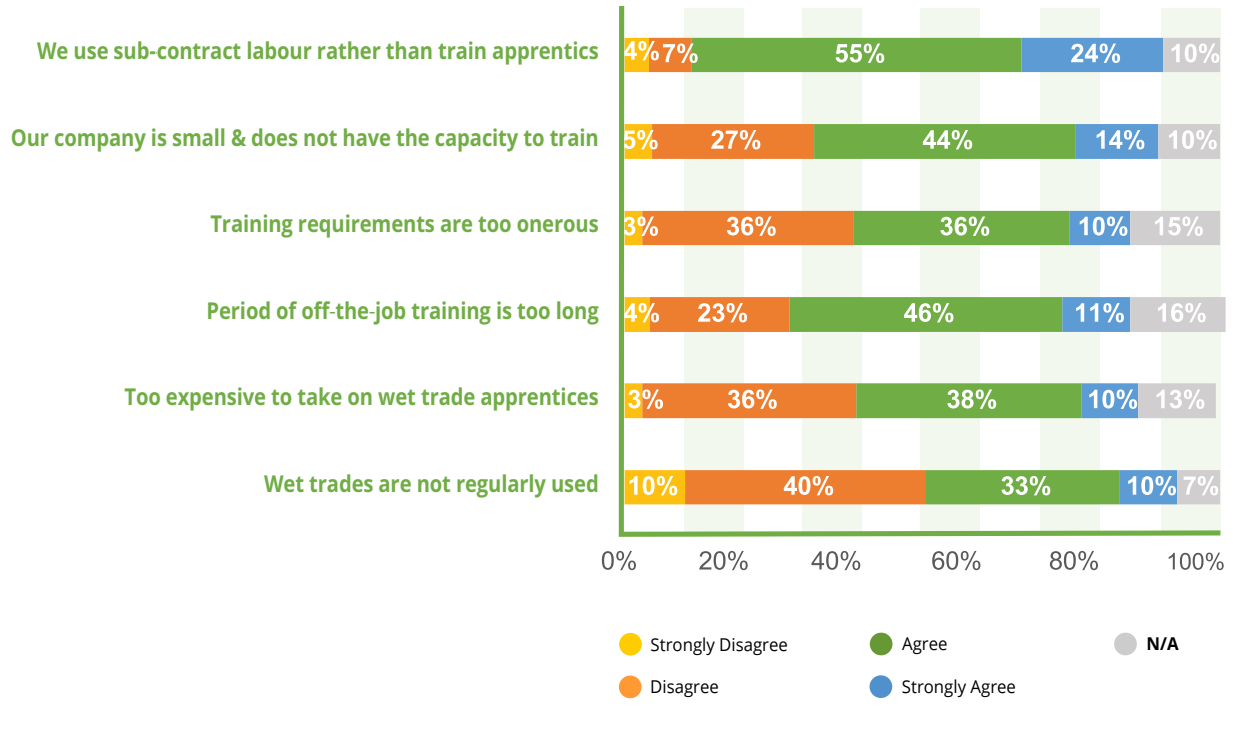
Onerous regulatory requirements

Too expensive to employ people directly

Apprenticeship in Ireland is dependent upon employers, and the evidence presented in this research confirms that the numbers of apprentices across the trades is critically low. It is the cost of redundancy in a transient sector that deters employers from taking on apprentices and direct labour rather than employment legislation.

A number of possible barriers to training apprentices were presented to respondent firms, the results of which are presented in figure 17.

Figure 17 **BARRIERS TO TRAINING APPRENTICES**



The results validate the earlier finding that sub-contract labour is used rather than training apprentices (79% agree), and the top three barriers to training apprentices include:

Use sub-contract labour rather than train apprentices

Company is too small and does not have capacity

Period of off-the-job training is too long

Interview participants concur with this finding in several respects. In terms of company size, the capacity issue relates to the number of employees as much as the breadth of work undertaken by the company. In several instances it was noted that some companies cannot guarantee that the apprentice will be exposed to the range of tasks necessary for eligibility to train apprentices, even if they wished to, thereby supporting the need for subcontractor involvement in apprenticeship training.

"While the challenges facing many construction companies in engaging apprentices are acknowledged, it is very important that the top twenty tier 1 construction companies take a leadership role in training apprentices. It is in everybody's interest that we are training sufficient numbers of apprentices across all trades, including wet trades, if even by supporting the subcontractor employers of apprentices in these trades, to ensure we have a qualified workforce to meet industry needs both now and into the future."

David Tracey, Sisk

The block release model of apprenticeship was also raised by several respondents as being a barrier to engaging apprentices, particularly the duration of off-the-job (in training center) phases. This issue is discussed more fully in Chapter 4.

The discontinuous demand for work, highlighted in the 2018 report, remains an issue for the sector.

"The cyclical nature of our industry leads to uncertainty about future work load thus taking on the training of apprentices for 4 years especially in the wet trades can be a big ask of employers. Add this to the amount of employment legislation in Ireland, no incentive from the state for employers, all combine to create an unwillingness by employers to take on the risks associated with employing apprentices in the wet trades."

John O'Shaughnessy, Clancy Construction

The negative perception of apprenticeship in Ireland may act to discourage school leavers from choosing this mode of learning with priority being placed upon third level education. Various stakeholders have undertaken a range of initiatives to address the issue, however, the cultural change required will take time to transform the misconception that apprenticeship is an inferior preference for school leavers. A positive step forward which may serve to address this misconception is the results from the survey of apprentices presented in the following chapter.

Ultimately, an employer based apprenticeship model requires company engagement and if the barriers to apprenticeship engagement remain (for reasons cited by participants in this research) the shortage of skilled workers will continue into the future.

2.4 Summary

Evidence from the research confirms there remain several challenges facing wet trades in Ireland, with a paucity of new registrations on these apprenticeship programmes, and in the case of floor and wall tiling, zero new registrations since 2012.

The predominant mechanism by which wet tradespeople are employed is through sub-contract labour, with the main reasons cited relating to discontinuous demand, cost and onerous legislative requirements. While sub-contract labour is an important feature of the construction industry, over reliance is indicative of a structural change in how these trades are engaged and trained and gives rise to risk transfer away from main contractors. The trend is highly unlikely to reverse.

Respondents confirmed that the lower costs from employing sub-contractors, small company size and duration of off-the-job training were all contributory factors in this regard.

There is a clear demand for wet trades amongst respondent companies, however, for various reasons companies are simply not training sufficient numbers of apprentices. In an employer led apprenticeship model, this presents a conundrum as to how future skills are likely to be met.

3. THE APPRENTICE PERSPECTIVE

3.1 Introduction

Apprenticeship is a long established mode of learning, and in spite of a growing number of apprenticeship programmes being developed in Ireland across a number of sectors, challenges remain in construction apprenticeships. New registrations onto construction apprenticeships, in particular the wet trades, have plummeted, as outlined in chapter 1.

In spite of considerable efforts by numerous stakeholders to promote apprenticeship nationwide, construction apprenticeship remains undervalued in Ireland as school leavers continue to prioritise "academic" third level programmes. The reluctance to choose a construction apprenticeship in particular stems from the severe impact on the jobs market during an economic recession which has resulted in a residual reluctance to enter an industry perceived as lacking job security. However, for wet trades specifically, the market has now over-corrected.

An important component of this research is insight provided by current apprentices registered on programmes across wet trades, in order to dispel some of the misconceptions around apprenticeship as a mode of learning.

The research provides a unique understanding of the motivation behind choosing this career path and their perception of apprenticeship overall.

For the purposes of this research, a sample of current apprentices from Cork and Dublin across the following trades was undertaken:

- **Bricklaying**
- **Painting and decorating**
- **Plastering**

currently no floor and wall tiling apprentices

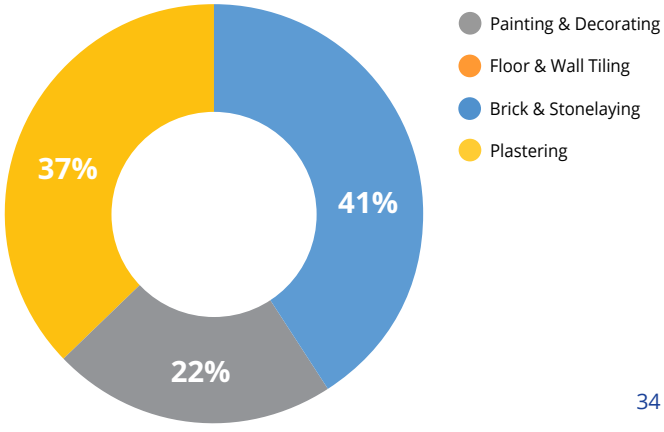
Respondents to the survey were undergoing either phase 4 or 6 of their apprenticeship, therefore at an advanced stage and had experience of both on-the-job and off-the-job phases. The details of the final sample population and response rate obtained is contained in Table 2.

Table 2 **APPRENTICE SAMPLE SIZE AND RESPONSE RATE**

	No. of new registrations (2019)	Total population (2019)	No. sample population (phase 3-7)	No. of usable responses	Response rate
BRICKLAYING	77	201	124	25	20%
PAINTING & DECORATING	30	116	86	22	26%
PLASTERING	33	91	58	12	21%

Table 2 confirms a strong response rate, therefore can be deemed representative of the population overall. The breakdown of respondents per trade is provided in figure 18

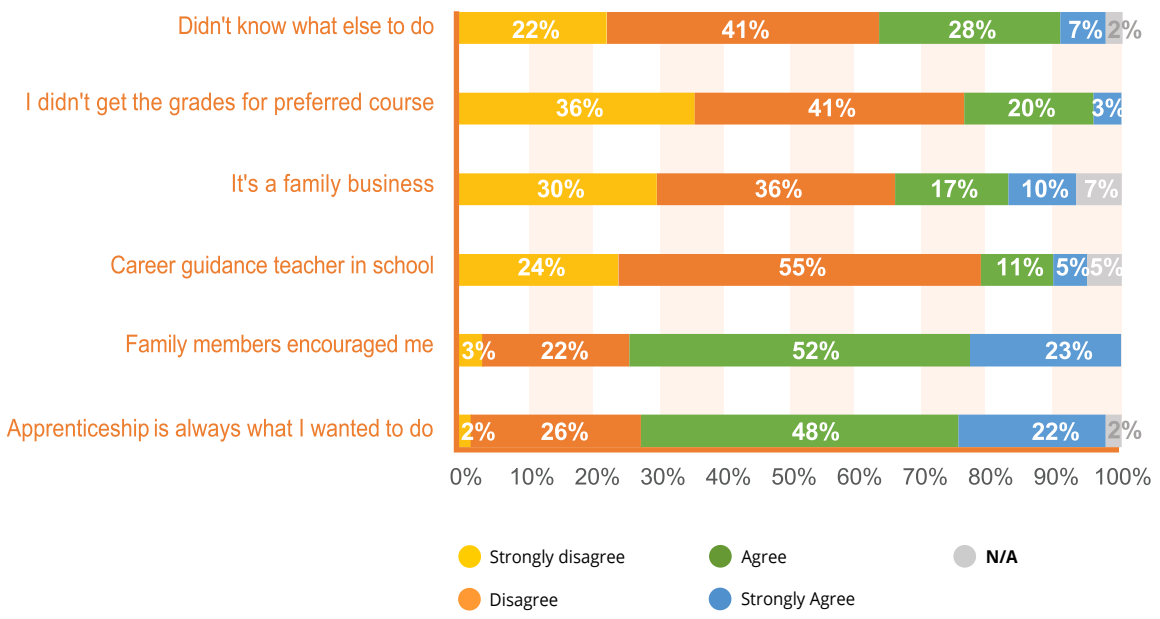
Figure 18 **APPRENTICESHIP RESPONDENT BY TRADE**



3.2 Motivation for undertaking apprenticeship

A number of factors shape the decision to undertake an apprenticeship and this research sought to determine the motivation for undertaking the programme amongst current apprentices. Results are presented in figure 19.

Figure 19 **MOTIVATION FOR UNDERTAKING APPRENTICESHIP**



Results from the research demonstrate that family members are a key influence in the decision to undertake the apprenticeship (75% of respondents in agreement). The role of family members in the decision is critical going forward to ensure targeted communication and awareness.

In line with these findings, the results demonstrate that people undertaking apprenticeship do so because they wanted to (70%) rather than being left with no other options due to poor grades. 77% of respondents opposed the proposition that they had to undertake the apprenticeship because they did not score highly enough to gain entry to an alternative programme. In fact, evidence from recent research[8] confirms that the majority of current apprentices score highly enough to choose a range of programmes available on the CAO.

77% of respondents opposed the proposition that they had to undertake the apprenticeship because they did not score highly enough to gain entry to an alternative programme

[8] O'Murchadha, E. (2020) As yet unpublished PhD Thesis at TU Dublin

Perhaps equally as significant is that only 16% of respondents agreed that career guidance teachers encouraged them to undertake the apprenticeship, with 79% confirming that encouragement did not come from career guidance counsellors. This is a significant finding as career guidance is hugely influential in the decision making process. Possible explanations could be the residual reluctance arising from a perceived lack of employment opportunities or it may be resulting from a lack of understanding of the varied and diverse careers qualified construction workers have available to them (both within and outside of the construction sector) globally. Either way, it is critical that this issue be addressed, and mechanisms by which this can be done are suggested in a later chapter.

16% of respondents agreed that career guidance teachers encouraged them to undertake the apprenticeship, with 79% confirming that encouragement did not come from career guidance counsellors

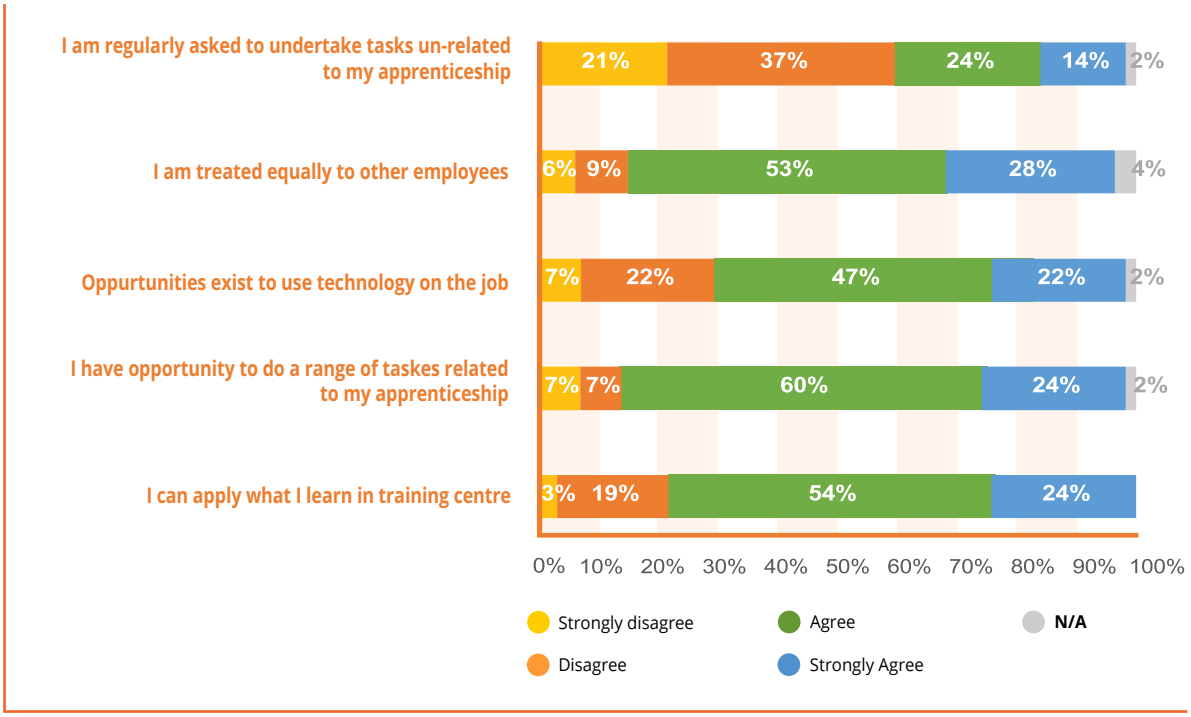
3.3 Perception of Apprenticeship Programme

As confirmed in table 2, respondents to the research were currently undertaking off-the-job phases, in a training center, on either phase 4 or 6. The intention was to involve only those apprentices that had experience of both components of the programme.

The overwhelming majority agree the apprenticeship programme is as they expected (74%) and 97% of respondents to the research confirmed that they are satisfied with their decision to undertake the apprenticeship.

A number of issues are uncovered to support the encouraging outlook of the apprenticeship in terms of how people are treated on site, the range of skills they can apply and exposure to the use of new technology, as demonstrated in figure 20.

Figure 20 **APPRENTICE PERCEPTION OF ON-THE-JOB PHASES**



One third of respondents confirmed that they are regularly asked to undertake tasks that are not related to their apprenticeship. There are numerous reasons why this may occur, most notably that an apprentice may be the most junior person on site therefore more likely to be asked to undertake more general tasks. This may be explained due to earlier phases of apprenticeship whereby the apprentice commences with an employer without any prior knowledge of the construction process, not least trade specific skills. A pre-apprenticeship orientation in areas such as health and safety, manual handling and building regulations may result in the apprentice being more valuable to the employer at an earlier stage thus mitigating the problem of being required to do unrelated tasks.

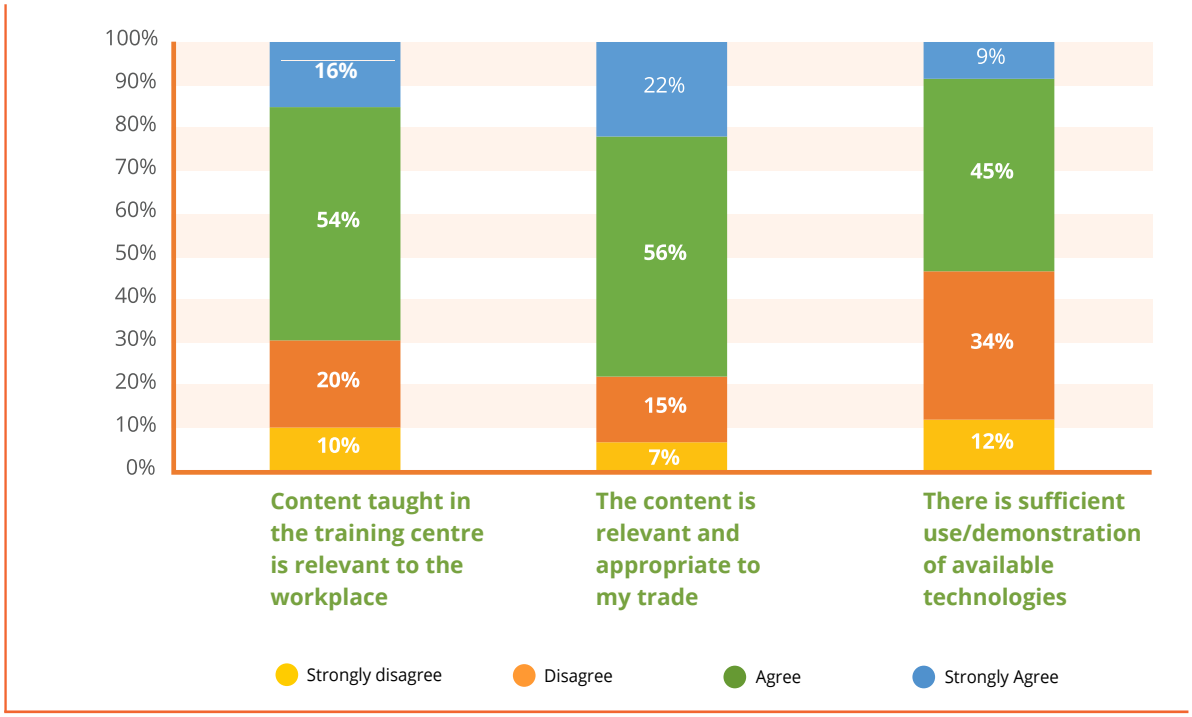
One interview respondent involved in the off-the-job training of apprentices provided a potential solution to address this issue:

"Currently phase 2 is a 20/22 week block. In my opinion, this is too long. I think phase 2 should be delivered in 2 parts (say A+B). Part A, first 10 weeks of the current phase 2 would become phase 1. This would provide newly registered apprentices with health and safety skills, Safepass etc. plus an introduction to the trade, tools and some hand skills. This change in sequence would result in a more appropriate first stage of apprenticeship. This change could also make the new apprentice more attractive to employers."

William Lacey, TU Dublin

The off the job phases are very positively viewed by current apprentices with curriculum content deemed applicable in the workplace and relevant to the trade. Of those apprentices that express an opposing viewpoint, it is marginally more pronounced within painting and decorating than the other two trades in question. The main comment made in this regard was the suggestion that the curriculum should be updated to better reflect industry practice.

Figure 21 **APPRENTICE PERCEPTION OF OFF-THE-JOB PHASES**



As is evident from figure 21, one area that perhaps requires further exploration is within the use of technology, whereby just below half of respondents do not believe there is sufficient use of technology in the programme. These opinions were evenly split between bricklaying and painting and decorating respondents.

In the context of digitisation and new innovations in construction processes and practice (e.g. modular construction), this may be a cause for concern going forward.

82% of apprentice respondents confirmed they would recommend the apprenticeship to a friend or family member.

Overall, however current apprentices are very positive about their experience in undertaking the programme and 82% of apprentice respondents confirmed they would recommend the apprenticeship to a friend or family member.

3.4 Summary

This chapter provided unique insight in relation to the motivation and experience of current wet trade apprentices, which do not include floor and wall tiling.

It is clear from the research that respondents were motivated to undertake the apprenticeship and encouraged by family members, and it is not the case that they had few options available to them. Interestingly, there was general agreement that career guidance counsellors were not the driving force behind the decision.

In general apprentices are satisfied with the programme, although more emphasis on technology would be welcome and in some instances an updated curriculum was noted as being warranted.

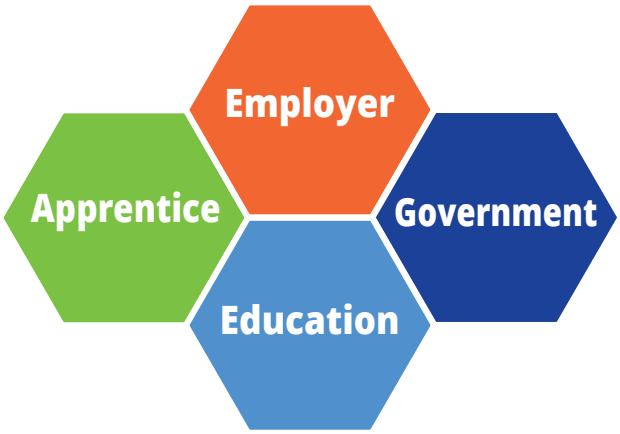
Wet trade apprentices tend to be pleased with their decision to undertake the programme and the vast majority would recommend it to a family member or friend.

4. FUTURE OUTLOOK FOR WET TRADES

4.1 Introduction

Previous chapters have identified a structural change in the construction labour market towards sub-contracting wet tradespeople. The purpose of this chapter is to bring together stakeholder perspectives for the purpose of identifying and analysing key themes emanating from the research. Figure 22 illustrates the areas considered.

Figure 22 **THEMATIC ANALYSIS OF FINDINGS**



From an **employer's perspective** the shift towards sub-contracting has been brought about by a change in their business model resulting from the severity of the recession. Furthermore, the block release system whereby an apprentice is in a training center or college for between 10 and 20 weeks at a time, is particularly difficult for SME's.

The number of **new apprentice** registrations has not recovered since the economic downturn, as the perception of uncertain employment prospects remain, so too does the misperception of apprenticeship more generally. Current apprentices, however, provide an encouraging perspective about their experience in undertaking their apprenticeship.

Union representatives have raised a number of concerns relating to wet trades, the most notable amongst them the absence of the necessity to display qualifications on site. This does not lend support to valuing wet trades in general and results in non-qualified personnel undertaking work with clear implications on quality assurance.

4.2 Future Demand for Wet Trades

Respondents to the research were asked to provide their viewpoint in relation to the future demand in the medium term across various sectors of the construction industry[9]. Responses (in rank order) are provided in figure 23).

Figure 23 **SECTORAL DEMAND FOR CONSTRUCTION OUTPUT 2020-2024**

1. PRIVATE RESIDENTIAL SECTOR
2. PUBLIC RESIDENTIAL SECTOR
3. PRIVATE NON-RESIDENTIAL SECTOR

The residential sectors (both public and private) are projected by respondent companies to be the key drivers of construction demand between 2020 – 2024. This bodes well for qualified wet tradespeople given their role within the residential sector.

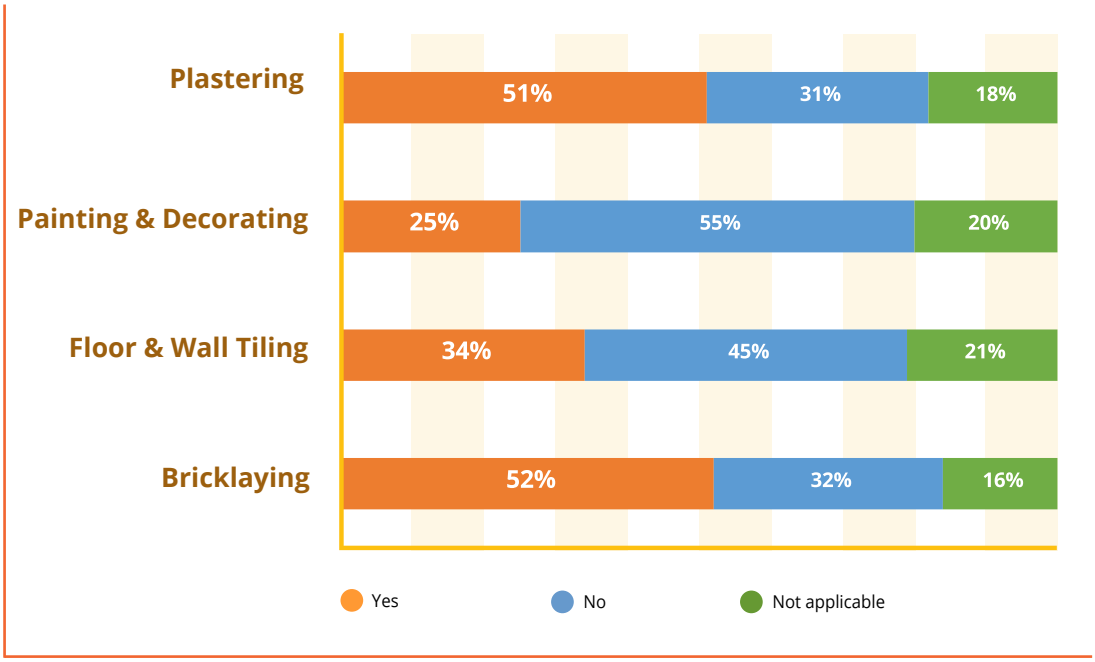
The private non-residential sector (hotels, offices, commercial, data centers etc.) was ranked third by a large proportion of respondents, while productive infrastructure and heritage ranked least likely to be drivers of demand in the period to 2024.

The importance of wet tradespeople in the structural, aesthetic, energy performance and fire ratings of buildings and infrastructure must be highlighted to ensure that the value of bricklayers, tilers, painter and decorators and plasters is fully recognised.

The capacity of the sector to meet future demand in construction has not been determined specifically as it relates to wet trades in Ireland. Respondents to this research were asked to confirm whether they, as employers, believed there to be a shortage of qualified personnel across wet trades; the responses to which are presented in figure 24.

[9] Data collected Q4 2019

Figure 24 **SHORTAGE OF QUALIFIED TRADESPEOPLE**

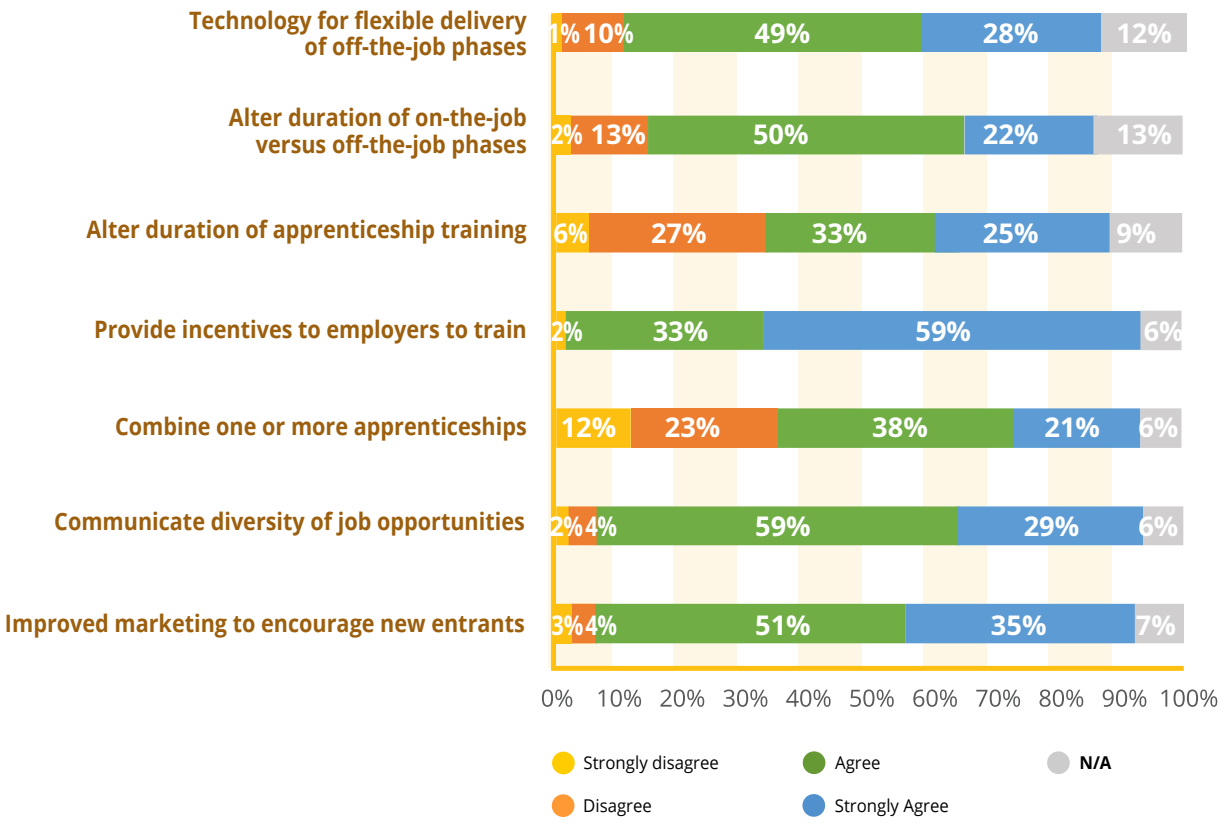


As can be seen in figure 24, a shortage of qualified tradespeople has been identified across all wet trades, particularly in plastering and bricklaying. Painting and decorating is the second largest trade by number directly employed and the largest in terms of sub-contracted labour, therefore, even though the confirmed shortage is proportionately smaller, the demand for the trade is likely to remain strong.

Over a third of respondents noted a shortage in floor and wall tiling, which cannot be met with new apprentices with the lack of new registrations over a prolonged period of time. In view of the void in new registrations and absence of company engagement for floor and wall tiling, it is clear that the current system for educating and training within this trade is not functioning properly. In order to meet future demand and quality requirements, alternative mechanisms to educate and train personnel in this trade must be considered.

Several ways in which the shortage could be addressed had been suggested during the scoping phase of research, and were presented to survey respondents to determine the strength of agreement with a number of options. The results of which are contained in figure 25.

Figure 25 **ADDRESSING WET TRADE LABOUR MARKET SHORTAGES**



Ongoing promotion and marketing of employment opportunities within construction and in particular construction apprenticeship, is required to dispel the negative perception of the sector as a whole. A considerable amount of progress has been made over the last number of years in this regard.

"Since 2016 there has been a considerable national promotional campaign for apprenticeship. The campaign has an overarching Generation Apprenticeship brand, which has a number of strands. These include the development of IT platforms on www.apprenticeship.ie to allow more employers to register and engage with apprenticeships; the creation of a new Jobs Portal; an annual competition for apprentices and secondary school children to stimulate interest in and promote the value of apprenticeships promoted via www.gacomp.ie ; an Employer of the Year Awards competition (for micro, small, medium and large employers); a range of promotional material that has been circulated nationwide; hosting employer specific events around the country; and an ongoing social media campaign to promote apprenticeships."

Alan McGrath, SOLAS

Interview participants suggested additional promotional events, for example, a national wet trade skills competition, roadshows, transition year initiatives, and / or representation of apprenticeship within events such as "Higher Options" may be beneficial to further promote these trades. The Ireland Skills Live event has been hugely successful in bringing apprenticeship to the fore, and the success of Irish apprentices competing on the world stage is demonstrative of our capabilities in this regard.

A previous chapter confirmed family members as the largest influencer in the decision to undertake an apprenticeship, and the contribution of construction trades in addressing critical economic and social issues in Ireland should be emphasised in order to inform parents:

"A clear message is required for parents that the apprenticeship system is a valued one and that their child after spending up to four years qualifying, have a recognised qualification that means something. For the industry to carry on in its current form will lead to a stagnated building industry and the current housing crises will continue."

Billy Wall, on behalf of OPATSI

Generating greater awareness will attract new apprentices, however the current model is predicated on employer engagement. This research highlights a reduction in employer engagement in certain apprenticeship training.

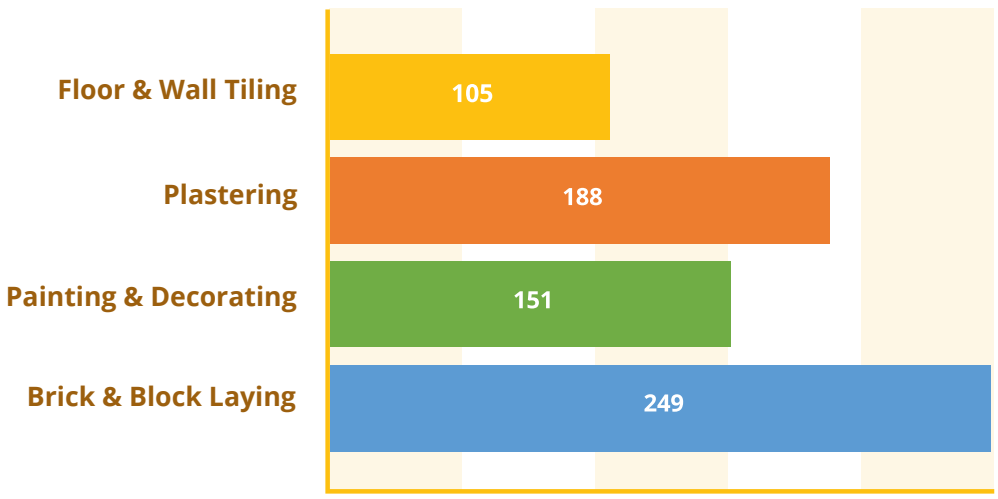
Currently there is a tendency in Ireland for school leavers to apply to third level institutions via the Central Applications Office (CAO) system, and a number of interview respondents suggested that consideration should be given to the feasibility of including apprenticeship on the system.

Apprenticeship is a mode of learning which provides both training center knowledge and practical work experience to obtain a level 6 qualification on the NFQ (in construction) and some employers shared a view that existing misconceptions could be resolved if the application process was aligned with other level 6 programmes on the CAO. It should be noted however, that while this view was expressed by employers, it is acknowledged that considerable stakeholder consultation to determine the feasibility of such a change would be required.

Generating greater awareness will attract new apprentices, however the current model is predicated on employer engagement. This research highlights a reduction in employer engagement in certain apprenticeship training. As business models have changed due to economic cyclicality, it may be an opportune time to re-evaluate the apprenticeship model for those trades that continue to suffer from diminished, or in some cases zero, new registrations over a period of time (this issue is discussed more fully in section 4.5). For companies that continue to engage in training it is imperative that apprenticeships are advertised widely in order to ensure school leavers are aware of available opportunities.

Apprenticeship registration is critical to meet future demand for wet trades, however projecting future demand nationally is a complex process. For the purposes of this research, in order to project likely future demand, respondent companies were asked to confirm the number of trades people they were projected to employ between 2020-2024. Results are contained in figure 26.

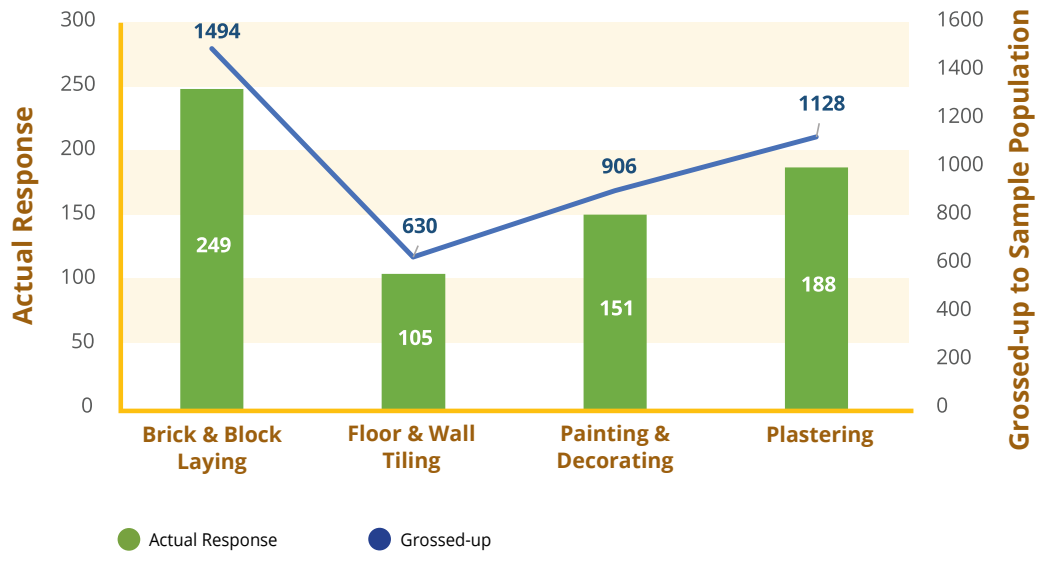
Figure 26 **ADDITIONAL DIRECT EMPLOYMENT 2020-2024 BY RESPONDENT COMPANIES**



The data in figure 26 reflects the number of additional people projected to be employed by respondent companies which confirms a strong demand across all trades. The figures presented are the actual figures provided by respondent companies in relation to the **additional staff** required in each trade over the time period in question.

At this point, survey responses reduced to 155 (from 174), thus while it was logical to apply a multiplier of 5.4 to data obtained earlier in the survey, a multiplier of 6 is more applicable given the lower response rate towards the end of the survey. Thus, it is possible that the projected demand for wet trade employees could be as much as 6 times greater to reflect sample population overall, as presented in figure 27.

Figure 27 **DEMAND FOR ADDITIONAL DIRECT EMPLOYMENT 2020-2024**

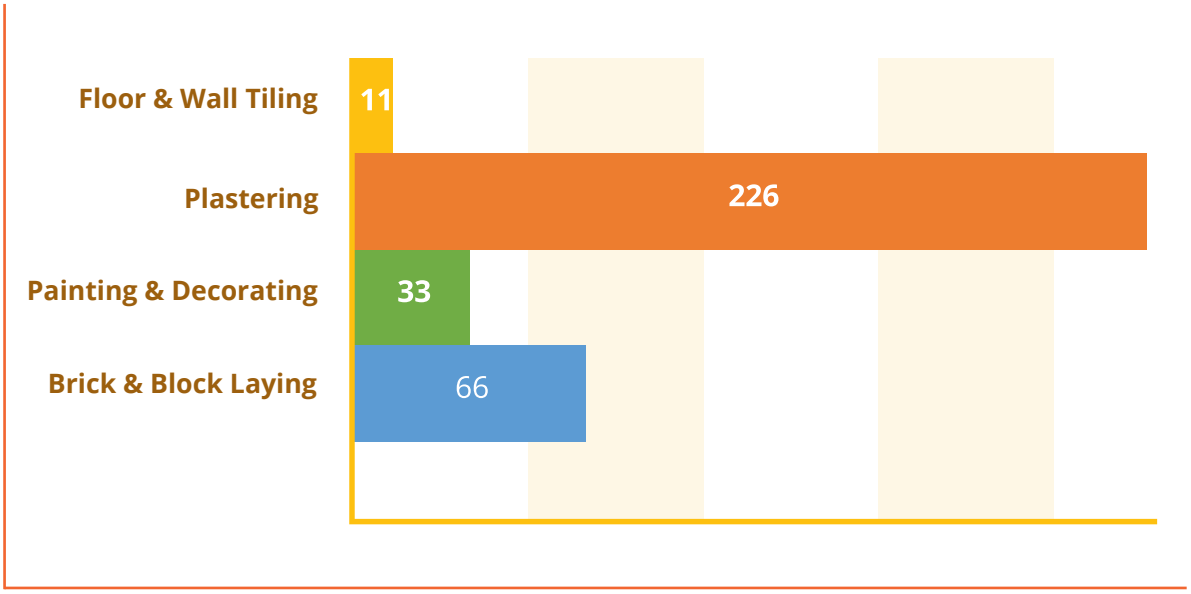


One must remember that the figures displayed are from a selected sample of CIF members only therefore are likely to be a very conservative estimate of future demand for direct employment across the trades in question.

While the data pertaining to projected direct employment is positive, it does present an anomaly for floor and wall tiling, given that no new apprentices have registered since 2012. The projected skills requirement may therefore be fulfilled by non-registered training, unqualified labour, foreign labour or sub contract labour or potentially a mix of all of these types of labour.

While there is clear demand for direct employment, the position changes considerably in terms of the number of apprentices respondent companies are likely to train over the period (figure 28).

Figure 28 **ADDITIONAL APPRENTICES ENGAGED BY RESPONDENT COMPANIES 2020-2024**



Similarly to the figure for direct employment, a multiplier of 6 could be applied to the figures presented to reflect the population as a whole, however no multiplier has been applied in figure 28. This is due to plastering in particular, whereby the number of additional apprentices to be trained is largely emanating from the results of a single firm. To apply the multiplier would therefore overestimate the engagement of apprentices over the time period.

The severity of the last recession (2008-2012), has clearly resulted in a structural shift from direct employment to sub-contracting, but it has also had a knock-on effect on engagement with apprenticeship training.

4.3 Employer

Employers are central to the construction labour market and have confirmed considerable current and future demand for wet tradespeople, both on a direct and sub-contract employment basis.

Two main issues arise, namely a lack of engagement in apprenticeship training and the use of sub-contract labour to meet demand for wet trades. Both of which are scrutinised in the following sections.

4.3.1 Engaging Apprentices

The cyclical nature of construction results in a pro-cyclical demand for construction workers. The severity of the last recession (2008-2012), has clearly resulted in a structural shift from direct employment to sub-contracting, but it has also had a knock-on effect on engagement with apprenticeship training.

Several research participants noted that the severity of the economic recession and associated job losses resulted in construction companies changing their business model. In order to mitigate against the risk of mass redundancy in the future, fewer workers and apprentices are now directly engaged. This has been compounded by the changes in redundancy rebates. Reliance on sub-contract labour has thus soared across the sector (the implications of which are discussed in section 4.3.2), and interview participants in particular noted how this pattern is unlikely to change in the short term at least.

Research participants put forward a number of suggestions that may increase the number of apprentices engaged; the most notable relating to the structure and duration of the apprenticeship programme. Many research participants called for a review of the current model of apprenticeship as regards overall duration, block release and curriculum content (discussed in section 4.5). Greater emphasis on the shared apprenticeship scheme was also noted as a possible mechanism to increase employer engagement.

It is disappointing to note that 44% of respondents to this research deemed the shared apprenticeship not applicable to their company.

The shared apprenticeship scheme offers many potential benefits as it enables employers on a co-operative basis, to share the training of apprentices. This not only ensures continuity of engagement for the apprentice but also affords the apprentices with the opportunity to gain a broader experience. It is disappointing to note that 44% of respondents to this research deemed the shared apprenticeship not applicable to their company. Shared apprenticeship provides the opportunity for companies to mitigate against downside risks of training apprentices during periods of market uncertainty. It also should reassure employers that if an apprentice is engaged, he/she will be trained across the full range of competencies across participating companies.

One explanation for sluggish employer engagement in the shared apprenticeship scheme, as suggested by interview respondents, was the onerous management and administrative obligations that are placed on participating companies. It was suggested that if the process was managed by a central agency it may result in greater industry engagement in the scheme. Furthermore, some interview respondents posited that engagement with the shared apprenticeship scheme may increase if apprentices registered in the first instance with a central agency and obtained some preliminary training prior to going to site. A step change in the apprenticeship model such as this would require further investigation to determine the feasibility and resource requirements.

4.3.2 Sub-Contract and Specialist Sub-Contract Labour

The prevalence of sub-contract labour is clearly established within the research. Sub-contractors are a crucial component of the construction labour market and for several aspects of work, the sector would not be able to function efficiently without sub-contractors. However, what is notable is the widespread move away from direct employment towards sub-contract employment.

This is a structural shift in the construction labour market to such an extent that many construction companies are akin to management contractors.

Some interview respondents expressed concern regarding quality control arising from workers not being employed directly by the contractor, which is enabled by the lack of on-site qualification inspection for wet tradespeople (discussed in section 4.6).

Arising from the matter of engaging wet tradespeople primarily on a sub-contract basis, is the large proportion of self-employed personnel. While this does not pose a problem in many instances, (in fact one of the benefits of a career in construction is that it affords suitably qualified personnel the opportunity to own their own business), however, union representatives in particular raised serious concern regarding bogus self-employment within the industry.

"The continued fragmentation of employers in the industry and the ongoing misclassification of workers into bogus self-employment all contribute to the diminishing numbers of Apprentices. In some cases, the numbers of employees are so low and themselves don't have the necessary qualification to train an Apprentice as they do not meet SOLAS requirements."

James Coughlan, on behalf of SIPTU

If a worker in any sector is inaccurately classified within the national data, it has potentially serious consequences. Further research is required to determine the prevalence of the issue within construction such that solutions can be put forward to address the concerns raised by union representatives in this regard.

The final issue as regards the use of sub-contract labour is in relation to the diminishing number of international workers entering the workforce in Ireland post-recession. During the economic boom to 2007, a significant number of international workers travelled to Ireland to avail of construction employment opportunities, however, the current growth cycle has not had a similar impact according to some respondents:

"The issue the industry faces is that we have seen a drop-off in the number of foreign nationals coming into Ireland as there is work closer to home now for a lot of them, and again, not all of them are here for the longer term and so we go through the process of having to educate new workers on Health and Safety, Building Standards etc. as others enter the market to replace those not returning."

Neil Durkan, Irish Homebuilders Association

Once again the quality of workmanship was raised as a concern in light of this trend which consequently reinforces the demand for sub-contract labour rather than direct employment.

If sub-contractors are using sub-contractors to undertake elements of work (which respondents to this research confirmed to be the case) this sub-sub-contracting will result in risks being extended further down the supply chain, with less visibility from the main contractor. The transfer of risk in this regard could cause a diminution in standards the consequences of which may result in reputational, quality, cost and perhaps health and safety implications.

4.4 Apprentice

Apprenticeship is a critical component of the construction labour market, and as previously noted, there has been a considerable decline in new registrations on wet trade apprenticeship programmes over a number of years.

The apprentices that participated in this research are largely positive about their experience on the programme and the overwhelming majority would recommend it to a friend or family member. It is clear that family members are instrumental in encouraging them to undertake the apprenticeship but career guidance advice in school is not influencing their decision to register as an apprentice.

The question thus remains as to how the trend could be reversed.

Industry cyclicality and resulting unemployment has a long lasting impact on the public's perception about the sustainability of a career in construction. Thus in spite of construction sector growth there remains a residual reluctance to choose a construction career, which has been particularly evidenced across the wet trades. This needs to be addressed as a matter of priority, as noted by one interview respondent:

"If we are to be competitive as a nation going forward and remain somewhat self-sufficient we need to support a system that encourages young people to enter the construction industry and take up a skill, otherwise we are going to find ourselves competing with other nations/economies based on who is paying the highest going rate at that given moment in time."

Neil Durkan, Irish Homebuilders Association

The promotion of apprenticeship is essential in this regard:

"There are approximately 57,000 students leaving secondary school every year not all of them are going to move on to Third Level Education. In order to encourage these students to take up a career in construction trades there needs to be a promotional campaign in schools informing leaving cert students how they can access the Apprenticeships System."

Thomas Faulkner, on behalf of Connect Trade Union.

As part of the in-school promotion it is important that career guidance teachers fully understand the nature and variety a career in construction can provide, in addition to the opportunity to "earn while you learn" once registered as an apprentice. Numerous opportunities exist for qualified construction workers in a diverse range of areas across the sector which provides opportunities to own your own business, work globally, and earn a good salary while contributing to the development of a sustainable built environment.

The focus of promotion must extend to career development opportunities for qualified tradespeople to progress to site management, project management and ultimately leadership positions across the construction industry. However, progression and promotional pathways in the construction sector may not be sufficiently recognised by those guiding school leavers on career options.

"A critical element for attracting new entrants into the industry is by clearly communicating the career development opportunities within the construction industry. Having undertaken my own apprenticeship a number of years ago, I was able to continue my education onto a degree programme and am currently part of the senior management team in one of the largest contractors in the country. The apprenticeship was the first step in the process in what has been a very rewarding career."

John Sweeney, Collen.

4.5 Education and Training

In order to ensure a sustainable supply of qualified construction workers it is necessary to consider education and training, not only in terms of core skills for the trade (or profession) in question, but also for lifelong learning throughout a career in the sector.

In light of regulatory changes, energy performance requirements, technological advances and industry developments more generally, there is an increasing requirement for continuous professional development (CPD) across the sector.

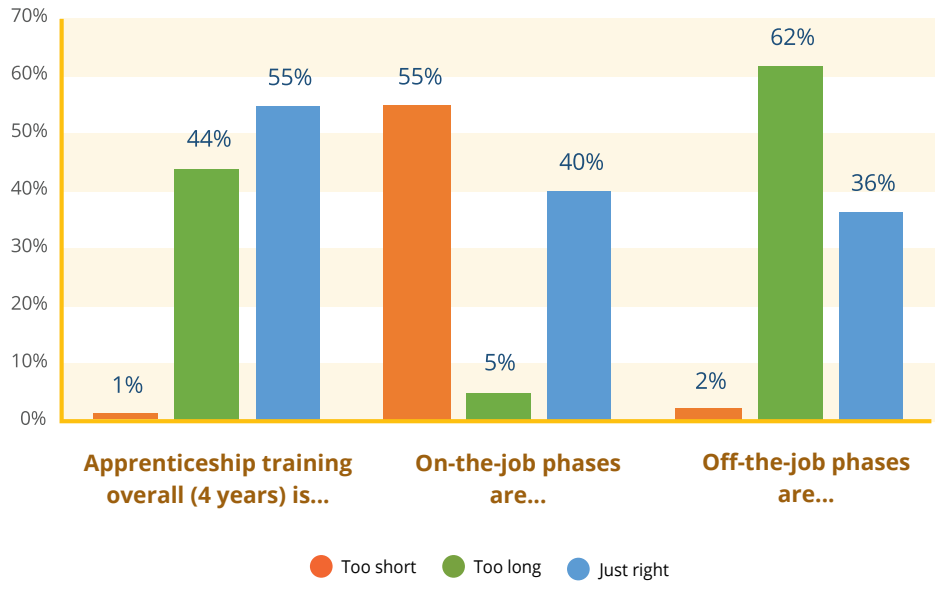
Ensuring the existing workforce engages in ongoing training and development is critical in safeguarding the quality and standard of the built environment but also raises the profile of the sector as a whole.

4.5.1 Apprenticeship Structure and Duration

The model for educating and training wet trade apprentices in Ireland is outlined in an earlier chapter. Research participant's offer varying opinions on the structure and duration of apprenticeship. While some respondents believed it to be working well, there were a large number that expressed concern, both in terms of the duration of the apprenticeship overall, and the block release system.

The majority of company respondents believe the duration of off-the-job phases are too long (see figure 29) which acts as a disincentive to train apprentices, particularly for SME's.

Figure 29 **PERSPECTIVES OF APPRENTICESHIP DURATION**



Alternatives suggested include a return to the 4 day per week with employer and 1 day a week in a training center.

"We should look at the way training was done for many years and worked. (a) main contractors directly employed the wet trades in large numbers because of their size and number of contracts. (b) off the site training was one day a week, very manageable from a staffing point of view. (c) because the wet trades were directly employed by the main contractor the foreman on site had hands on control of output and quality and training".

Anthony O'Leary, D.D. O'Brien & Co.

This viewpoint reflects a traditional model of general contracting where both main and specialist sub-contractors employed personnel directly. And while the suggestion is valid, and one shared by many respondents, challenges may remain in terms of geographic location of training centers in relation to employers and also the current model for the delivery of public sector projects (e.g. Most Economically Advantageous Tender, MEAT).

The day release model may be a more attractive proposition in particular for the large proportion of construction SME's. It is important to note, however that this form of apprenticeship may cause difficulty for those required to travel to a training center in a different county from where their employer is based. In this instance, it may be necessary to develop elements of the programme for online delivery such that a blended approach to learning may be applied.

It was suggested that the requirement for apprentices to avail of the next available place for training phases, regardless of geographic location, should also be examined. For those apprentices who may not wish to move away from home as part of their training, that it could act as a deterrent to new entrants.

In relation to the overall duration, while bricklaying respondents were strong in the view that the 4-year duration was warranted, many floor and wall tiling respondents indicated that perhaps the duration is too long for the trade in question. Suggestions for either a 2-year apprenticeship or traineeship would be appropriate for the basic skills with pathways for progression to specialised aspects of the craft developed thereafter (see also 4.5.3).

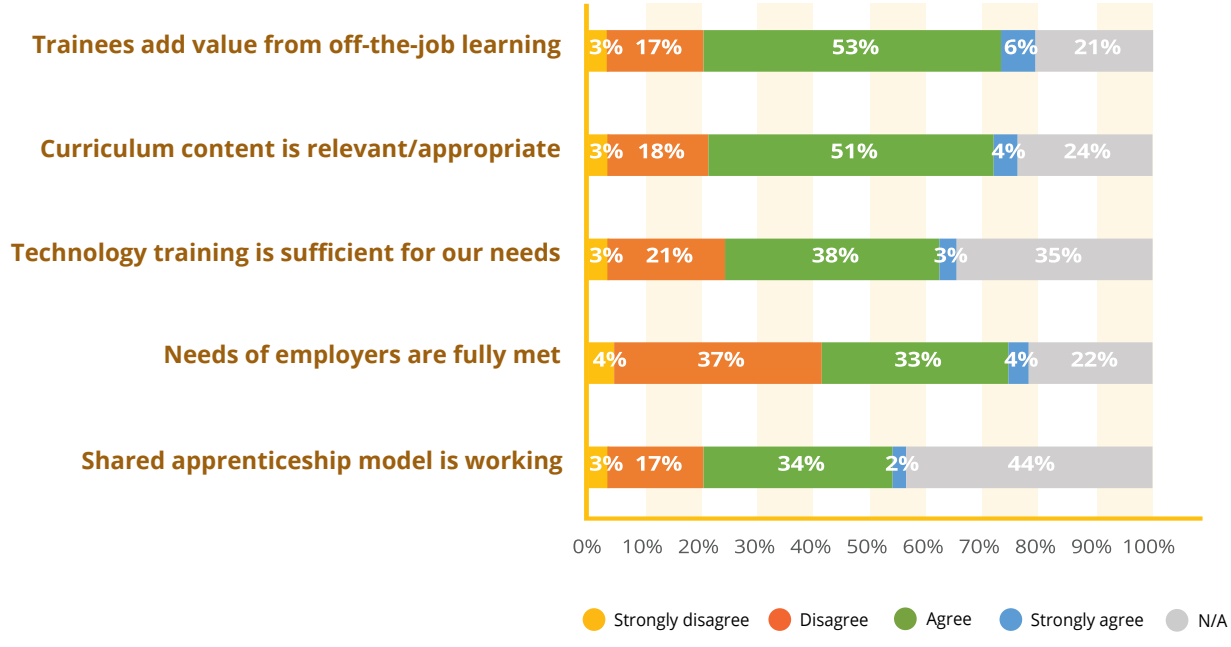
The existing apprenticeship model is clearly working well for some trades however, it is not as effective for others, thus a "one size fits all" solution is not possible.

4.5.2 Curriculum Design

Given the ongoing changes in the construction industry, it is of paramount importance that the curriculum keeps pace with new developments, techniques and regulations.

Respondent companies involved in this research were asked their perspectives on the current curriculum, which are presented in figure 30.

Figure 30 **EMPLOYER PERSPECTIVES ON CURRENT CURRICULUM**



While the results demonstrate a reasonably positive perspective of the curriculum, one caveat to the findings is that the majority of respondents do not engage apprentices therefore one may question whether they are sufficiently knowledgeable about the current curriculum. However, there is no discernable difference in the findings between those that do train and those that do not train apprentices in this regard.

A regular review of curricula takes place by SOLAS, however, some respondents indicated that it is timely to undertake an intense review of programme content in collaboration with industry professionals.

New technologies, products and construction processes are emerging which offer opportunities to specialise in aspects of construction such as data centers or clean rooms which may not have featured prominently within the sector in the past, but with high levels of Foreign Direct Investment (FDI) in these areas now in demand.

"There is a requirement to overhaul the Painting & Decorating apprenticeship to make it relevant to today's business, the course context has not evolved to include anything on industrial painting."

Des Forde, J.S.McCarthy Ltd.

In this instance, and in order to meet immediate demand, the development of accredited short courses (or CPD course) in specialist areas should be considered.

4.5.3 Traineeship and Continuous Professional Development

While the apprenticeship route is the one most travelled for the wet trades, it is important to consider alternative mechanisms by which people can train and gain expertise in a trade, including traineeship. A traineeship is developed in partnership between Education and Training Boards (ETB's) and Industry and are developed for flexible delivery to include work placement, online and in-class learning. Traineeships are developed to meet the needs of industry, and can address areas of the workforce wherein a shortage has been identified.

As the standards, regulations, markets, technologies and materials evolve there is a real need to provide training courses for qualified/experienced workers on an ongoing basis.

A small number of construction traineeships are currently in place, however research participants (interview respondents in particular) noted that consideration be given to the expansion of traineeships for wet trades. It is not suggested that traineeship replace apprenticeship, however it may be an alternative route to gaining a qualification:

"Young people wanting to enter the trade see no solid pathway to gaining a qualification in tiling.This needs to be addressed and a traineeship put in place that will have the support of everyone involved in tiling and the construction industry."

Damian Groarke, Ardex Ltd.

The proposal to develop a traineeship for tiling in particular was noted by a number of interview respondents who reflected on the model currently on offer in Southern Regional College, Newry.

In addition to a route for new entrants, traineeship could also be considered as one mechanism for ongoing lifelong learning for qualified and experienced construction workers in areas such as specialised coatings or high pressure washing to name but two. In addition to specialised training, many respondents noted a requirement for general business management and leadership skills development. As noted previously, many qualified tradespeople go on to own their own business therefore would benefit from courses in this area.

Upon qualification from an apprenticeship there is no requirement for wet trades to engage in further training. However, as the standards, regulations, markets, technologies and materials evolve there is a real need to provide training courses for qualified/experienced workers on an ongoing basis.

Several manufacturing companies successfully provide training for their products, however a coordinated, nationally available suite of accredited short courses would be hugely beneficial.

Trade Associations involved in this research were very open to participating in the coordination of this initiative, which would further raise the profile of wet trades.

The requirement for ongoing training and CPD for qualified personnel could form part of a proposed registration of wet trades (see section 4.6).

4.6 Registration

A recurring concern strongly communicated by participants across both phases of research is the opinion that wet trades are undervalued within and outside the construction sector.

All construction trades qualify at the same level (6) on the NFQ and thus achieve the same level of learning outcomes for their respective trade, yet respondents suggested that other construction trades are perceived as having higher status on site. This is further deterring new entrants into these trades.

In practice, and unlike other trades working in the construction industry (e.g. electrical, plumbing) wet tradespeople are seldom required to show their qualification prior to commencing work:

"Every employee entering a site needs to hold a valid safe pass card before gaining access. They will very rarely if ever be asked to produce their National craft certificate. That is why having served a four-year Apprenticeship and gained your National Craft Certificate it must hold some value and this is why we need some form of Licensing / Legislation put in place to protect our crafts. Otherwise we will continue to see the undermining of our crafts."

Thomas Faulkner, on behalf of Connect Trade Union.

One of the key advantages of a registration system (or qualification card) is that it may reduce the number of unqualified personnel on site and thus improve the standard of work overall. This in turn is likely to improve the perception of these trades and may encourage new entrants.

Confidence in sustained Government capital investment in the construction industry provides a greater degree of certainty in pipelines and an assured workload will encourage construction companies to invest in training and development.

As standards rise it is possible that earning potential may also increase,

"The big plus about construction is that they have the potential to earn a lot more money if they are good at their trade and that point is probably not highlighted enough."

Anthony O'Leary, D.D.O'Brien and Company Ltd.

While the registration of wet trades would represent a significant change to the status quo, and the feasibility of such a change would require considerable stakeholder consultation, the introduction of a registration system of qualified personnel has been very successful in other industry sectors (e.g. Property Services) from which lessons may be learned.

There is a legislative basis, in particular for public works, to ensure competence of personnel whereby ***"the contractor is required to ensure that the Contractor's Personnel are suitable qualified and experienced and are competent to carry out their respective tasks."***[9]

In the private residential sector, while not on a statutory basis, there are responsibilities for engaging a tradesperson:

"Each homeowner having work done to their home is required to ensure that all workers are competent in the build. In a document published by the Health and Safety Authority[10] ***it sets out the responsibility of the homeowner when having work done. Contained within the guide is a checklist for the individual to use to ensure the people working on the property are competent."***

Billy Wall, on behalf of OPASTI

While there was strong belief amongst research respondents of the value of the introduction of a registration system, the complexities of establishing such a registration system are not underestimated.

4.7 Government

Government is a key stakeholder in the construction industry, not least as the regulator and legislator, but as a client of the sector by way of capital expenditure in productive and social infrastructure.

Confidence in sustained Government capital investment in the construction industry provides a greater degree of certainty in pipelines and an assured workload will encourage construction companies to invest in training and development. A key factor in the reduction in apprenticeship engagement arose from the severity of economic cycles, which could be mitigated by greater assurance in Government capital spending. This has the reciprocal benefit in addressing labour shortages that are currently putting upward pressure on wage inflation and contributing to cost overruns.

Respondents to this research suggested that the Government should engage in apprenticeship training and use the shared apprenticeship scheme across various sectors, from residential to hospitals, schools and heritage buildings. This would provide security of engagement while also providing the apprentices with experience across sectors.

In contrast, some respondents noted that priority should be given to government redirecting funding to an apprenticeship model that employers will support to attract new entrants into the sector for the training of appropriate skills on a sustainable basis. 92% of participants in the current research confirmed that government incentives for construction companies to train apprentices were required to address the skills shortage, as noted by one respondent:

"We need some form of commitment from the state to incentivise contractors large and small to take on apprentices in the wet trades, it can't all be the industry's responsibility, the state also has a responsibility, we need a joined up approach, state and industry to resolve this issue together."

John O'Shaughnessy, Clancy Construction

[9] Public Works Contract for Building Works Designed by the Employer https://constructionprocurement.gov.ie/wp-content/uploads/PW-CF1-v2.4-05-06-2019.pdf

[10] Health and Safety Authority https://www.hsa.ie/eng/Publications_and_Forms/Publications/Construction/homeowners_guidance.pdf

Other industry stakeholders concurred with this viewpoint, and specific suggestions were provided in this regard:

"We propose that the government direct additional funds to the Apprenticeship Council as part of a multidepartment effort to address the observed shortfall in new apprenticeships. This shortfall feeds directly into skills gaps in the sector. Additional funds raised by bringing employer social contributions into line with EU norms could fund expanded training and continuous education schemes, which remain underdeveloped in Ireland. This could address existing skills shortages and make the sector more adaptable in a changing economic environment."

Liam Bernie, *on behalf of ICTU*

4.8 Summary

The chapter provided an insight into the key issues arising from both quantitative and qualitative phases of the research.

The analysis of findings presented reinforces earlier discoveries pertaining to the lack of direct employment and engagement in apprenticeship training, and the predominance of sub-contract labour.

Evidence provided in this research confirms that additional demand for wet tradespeople between 2020-2024 cannot be met through the current population of apprentices coming through the system. This is of grave concern in the context of housing, infrastructure and climate action objectives outlined in the NDP 2018-2027.

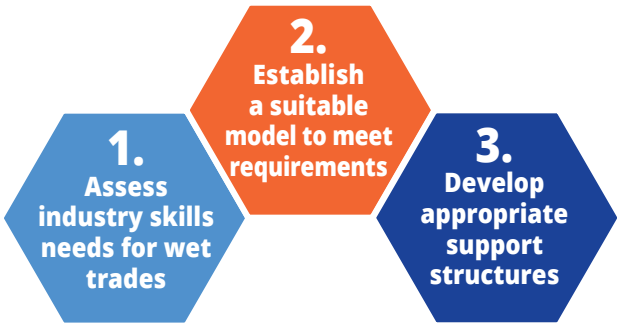
There is a perception in industry that wet trades are not valued to the same extent as other trades, and the research uncovered an appetitive for the development of a registration system for these trades. It is believed that such a system would reduce the number of unqualified workers, improve quality and standards and make these trades more attractive to new entrants.

While the ongoing promotion of apprenticeship as a mode of learning is required, employer engagement is essential under the existing model. In some instances, particularly in floor and wall tiling wherein there are no registered apprentices, it is timely to consider additional / alternative mechanisms by which people are trained in the area to ensure a skilled labour force for the future.

It is apparent that there remains many challenges facing the wet trades, which are not experienced to the same extent across the four trades in question. Potential solutions to the issues are therefore not uniform. To that end an assessment of industry needs is therefore warranted.

The labour market trends are unlikely to change in the medium term, therefore the disequilibrium will continue unless action is taken to address the challenges. An evidence based multi-stakeholder process is required, as outlined in figure 31.

Figure 31 **STAGED PROCESS FOR ADDRESSING FUTURE SKILLS NEEDS**



5. RECOMMENDATIONS

5.1 Introduction

The preceding chapters have brought together evidence following a multi stakeholder research investigation into wet trades in Ireland. Resulting from the paucity of nationally available data, this research has provided considerable new insight into the issues facing these trades specifically.

The research was based on a large sample of CIF member firms from all around Ireland, of various sizes and engaged in a range of construction related activity, thus it is considered representative of the industry as a whole.

New construction processes, materials and technologies are emerging and domestic demand continues to be driven by both indigenous and international demand. Investment through the NDP will further contribute to sustaining construction output to 2027, therefore a properly functioning construction labour market is imperative.

The construction industry has evolved in the last decade, and the way construction companies organise their business has changed with it. Fewer tradespeople are directly employed, while preference for sub-contracting wet trades is evident.

Considerably fewer new apprentice registrations for wet trades have been recorded since economic recovery took hold from 2014, and the existing population of wet trade apprentices is unlikely to satisfy the demand for additional qualified personnel in the medium term (to 2024).

Wet trades are critical in every sector of the construction industry and the labour market disequilibrium for these trades is of considerable concern. The impact of which is likely to include wage inflation, cost overruns and ultimately the inability to achieve value for money across both public and private sector construction projects.

Addressing labour market imbalances requires a multi-dimensional and multi-stakeholder solution. Thus, the following section provides a range of recommendations addressing the key issues raised by participants in the research.

Wet trades are critical in every sector of the construction industry and the labour market disequilibrium for these trades is of considerable concern.

5.2 Recommendations

Issue to Address		Recommended Action	
1.	**APPRENTICESHIP MODEL REVIEW**	**1.1**	Ongoing monitoring of market trends and projected future demand to provide ***evidence based analysis and timely modification of curriculum content to meet industry requirements.***
		1.2	***An independent review of the current apprenticeship model for wet trades should be undertaken on an individual trade basis*** to include (but not limited to): ▶ Duration of each wet trade apprenticeship ▶ Block release versus alternative models of apprenticeship ▶ Review of the minimum age entry requirement ▶ Review of remuneration ▶ Use of technology to enable blended learning, in particular at early phases for orientation in advance of commencing with employer.
		1.3	***Structure and communicate the progression route from apprenticeship to craftsperson*** and upward through the NFQ to clearly exhibit career pathways for qualified tradespeople.
		1.4	***Incorporate business skills development during the apprenticeship*** as many qualified personnel become business owners. This should be coupled with continuous professional development programmes (see 2.3).

5.2 Recommendations *continued*

Issue to Address		Recommended Action	
2.	**EDUCATION AND TRAINING**	**2.1**	***Traineeships should be further developed, supported and marketed*** as a mechanism by which to commence or continue within wet trades. In this context an assessment of employer requirements should be undertaken.
		2.2	***Undertake a review of wet trade apprenticeship on a trade by trade basis*** (see 1.1) incorporating pre-phase one orientation (see 4.4) and ongoing evidence based curriculum review (see 1.1).
		2.3	***Develop a series of continuous professional development programmes for qualified tradespeople*** to maintain competence and enable compliance with CIRI.
		2.4	***Promote in-company training centers*** around the country to support (not replace) existing training and education provision. The initiative could be administered and monitored by relevant trade associations.
		2.5	***Investigate the feasibility of listing construction apprenticeship programmes on the Central Applications Office (CAO)*** to mitigate against the comparatively negative perception of apprenticeship programmes vis-à-vis other level 6 programmes currently on the CAO.

5.2 Recommendations *continued*

Issue to Address		Recommended Action	
3.	**GOVERNMENT**	**3.1**	***Government departments continue to support and engage in the national campaign to attract suitable people into the construction sector.***
		3.2	Following the outcome of the review of the current apprenticeship model (see 1.2) ***ring-fenced funding should be allocated to an appropriate skills programme for construction trades to ensure a sustainable labour market throughout economic cycles.***
		3.3	***Intervention where minimum threshold levels are not achieved to meet demand should lead to the direct engagement of apprentices by government departments*** at least for the duration of the NDP 2018-2027. In this instance apprentices would gain experience on a wide variety of public sector projects and continuity of engagement is assured.
		3.4	***To put CIRI on statutory footing*** for the monitoring of qualifications, quality and standards across the industry.

5.2 Recommendations *continued*

Issue to Address		Recommended Action	
4.	**ENCOURAGE CONSTRUCTION COMPANIES TO ENGAGE APPRENTICES**	4.1	***Incentivise construction companies to engage with apprentices.*** This could be achieved through the National Training Fund (NTF), tax credits or subsidies. Redundancy rebate should also be reconsidered in conjunction with other financial measures by government (see 3.2).
		4.2	***Promote and expand alternative modes of education and training, including the shared apprenticeship scheme*** nationwide by communicating the benefit to all stakeholders in training apprentices in a variety of companies across construction sectors.
		4.3	***Reduce the administrative burden on companies participating in the shared apprenticeship scheme.*** A central agency should be tasked with, and adequately resourced to undertake this process.
		4.4	Develop a ***pre-site training programme for early stage apprentices*** to ensure they have received essential training and orientation, including health and safety, manual handling and basic regulations (see 4.2). This will ensure that the apprentice is ready to commence work on site and adds value from the start.
		4.5	In conjunction with the apprenticeship model review (see 1.2) consideration should be given as to the ***feasibility of altering the current block release structure to align with newer apprenticeships (such as auctioneering and property services)*** whereby the apprentice is in a training center one day a week and with an employer for four days.

5.2 Recommendations *continued*

Issue to Address		Recommended Action	
5.	**MARKETING AND AWARENESS CAMPAIGN**	**5.1**	***Establish an industry oversight group to support careers promotion in the construction sector.***
		5.2	***Continue to engage in an awareness campaign to promote construction as a viable career choice and encourage school leavers to consider apprenticeship.***
		5.3	***Industry representatives to engage with Career Guidance Counsellors to communicate the opportunities for building a career in construction.*** This may involve industry and education providers engaging directly with career guidance counsellors (and relevant associations) in this regard. This initiative could be coordinated with a schools programme or competition to generate awareness.
		5.4	Continued efforts to ***dispel the misconceptions surrounding construction apprenticeship to reinforce the importance of apprenticeship as a mode of learning.***

5.2 Recommendations *continued*

Issue to Address		Recommended Action	
6.	**REGISTRATION AND RECOGNITION OF SKILLS**	**6.1**	***It is recommended that a range of CPD programmes be developed*** which will serve to provide confidence in the competence of personnel being engaged.
		6.2	***Promote the recognition of qualified personnel through the CIRI register*** and align with registration (see 6.1)
		6.3	***Consider undertaking a feasibility study in relation to the introduction of a registration system for qualified wet trade personnel.***

Table 3 **Recommendations**

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