



Rialtas na hÉireann  
Government of Ireland

## Spending Review 2019

# Review of Participation and Costs of Apprenticeships

EDUCATION AND SKILLS VOTE

DEPARTMENT OF PUBLIC EXPENDITURE AND REFORM

JULY 2019

This paper has been prepared by IGEES staff in the Department of Public Expenditure & Reform. The views presented in this paper do not represent the official views of the Minister for Public Expenditure & Reform.

# IGEES

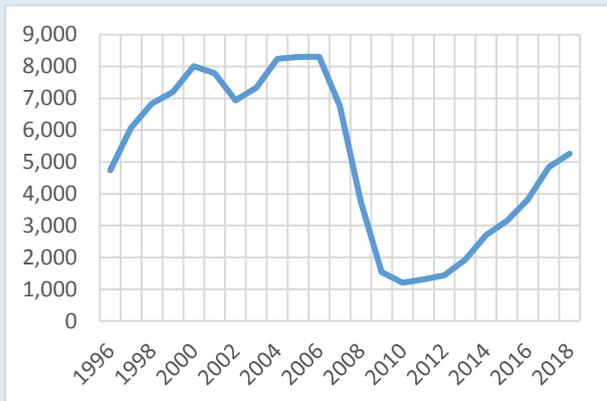
Irish Government Economic and Evaluation Service

## Executive Summary

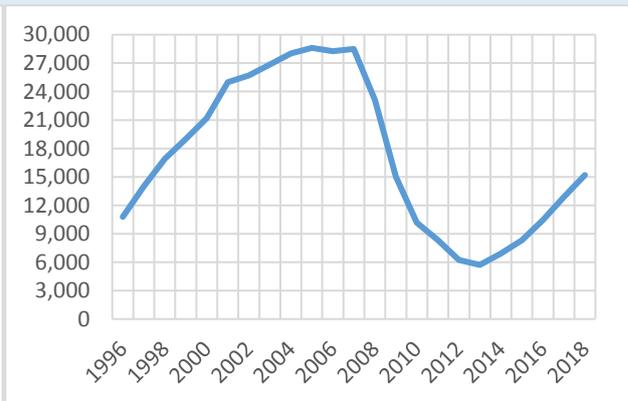
### Key Trends and Features

- There has been significant investment of c. €480 million by the Exchequer and the National Training Fund in apprenticeships with just under €340m expenditure between 2015 and 2018 and a further €142 million allocated for the sector in 2019.
- Since the Action Plan to Expand Apprenticeships and Traineeships 2016-2020 was launched in 2016, craft apprenticeships have experienced the strongest growth in registrations and have met aggregate targets.
- However, there has been low levels of take up in post-2016 apprenticeships and registration targets have not been met.
- Following the onset of the fiscal crisis, registrations for apprenticeships experienced a very rapid and prolonged reduction. While this trend has reversed with overall registrations for apprenticeships steadily increasing since 2013, they are still low compared to their levels a decade ago, with registrations returning to 1996 levels. The overall apprentice population now stands at 1998 levels.

Total Apprenticeship Registrations 1996 – 2018



Total Apprenticeship Population 1996 – 2018



### Key Findings

#### 1. Targets and Forecasts

Relaunching apprenticeships has increased registrations, however overall annual targets have not been met. Since the Action Plan was launched in 2016, registration targets have not been met in post-2016 apprenticeships, while aggregate targets have been met in the pre-2016 craft apprenticeships. In 2018, the apprentice population was 15,373, with 94% of apprentices undertaking pre-2016 craft programmes, and 6% in new programmes. Craft programmes, driven by growing demand from employers and a strong embedded employer base, remain the backbone of the apprenticeship system, with electrical (42%), construction (24%) and motor (16%) programmes containing the most apprentices in 2018. Overall registration levels across all

pre-2016 programmes are at similar levels to 1996, having experienced strong growth through the 2000s, a sharp decline in the economic crisis and a steady recovery in recent years.

New apprenticeships have taken hold in some areas but have failed to meet overall targets. This is despite programmes being led by industry after they identified skills shortages. New programmes have taken longer than anticipated to develop, although 20 such programmes are now available, and employer take-up in some of those apprenticeships has been slow. Employer demand for programmes varies with economic cycles and wider labour market conditions. This can create instances where the numbers of apprentices can significantly increase or decrease with overall economic conditions (particularly in areas such as construction), resulting in some programmes with large intakes and others with low numbers.

## **2. Data Availability**

Detailed cost data on apprenticeships was slow to compile, inconsistent and presented difficulties in analysis and interpretation. Detailed data presented in a consistent and standardised format is key to a full understanding of the cost of delivering apprenticeships to allow for a proper evaluation and analysis of the sector. Apprenticeship expenditure takes place across a range of settings in higher and further education and training, is distributed through SOLAS, ETBs and the Higher Education Authority and involves different models in pre-2016 and post-2016 apprenticeships. In this complex environment, consistent data would allow a full analysis of the main cost drivers in the sector and indicate whether significant changes in cost of provision arise from year to year, across the apprenticeship system and across funding recipients.

As apprenticeships grow into newer sectors of the economy and are still in a relatively early stage, DES, SOLAS and the HEA should embed a consistent approach to cost data collation, which supports proper evaluation of policy interventions to determine their effectiveness and efficiency. This data, as well as the other data already collated by SOLAS, HEA and the Department of Education and Skills, such as registrations by sector, gender, age, etc. should be published annually to allow for broader examination of expenditure and its impact.

## **3. Data Costs and Expenditure**

Significant investment by the Exchequer and the National Training Fund in apprenticeships (€338.5m) between 2015 and 2018 was made to address skill needs, support growth and productivity, build career paths and support policy objectives set out in the National Skills Strategy, the National Development Plan, Project Ireland 2040 and other initiatives.

The average annual cost of a craft apprenticeship place is €7,159 and €9,877 for a new apprenticeship place. While allowances are clearly identified as the main cost of craft apprenticeships, the main cost drivers of new apprenticeships are more diverse, including development costs and the costs of supporting consortia to run these apprenticeships. A more consistent view of fixed and marginal costs in new apprenticeship is needed to better understand the contributing factors to the higher average cost of new apprenticeships, particularly given that participants on the post 2016 programmes do not receive an allowance.

The Action Plan to Expand Apprenticeship and Traineeship runs to 2020. While the Department of Education and Skills, SOLAS, HEA and partners have been undertaking structured engagement with employers and education and training providers to understand what is working well in new apprenticeships and what challenges to growth exist. It is recommended that a formal evaluation of new apprenticeships, including value for money and cost effectiveness; is undertaken to inform a successor action plan.

#### **4. Data Overarching Policy and Strategy Considerations**

An appropriately educated and skilled workforce is key to meeting the current and future skills needs of the economy. The apprenticeship model and the wider FET sector have a key role in meeting these demands. Research by the ESRI and the European Centre for the Development of Vocational Training showed a high level of skill underutilisation among employees in Ireland, with Irish workers reporting education in excess of those required for their job compared with other EU countries. High levels of mismatch have potentially adverse impacts for individuals, firms and the economy and underscores the importance of an integrated and shared strategic vision for both the HE and FET sectors. The Department of Education and Skills, SOLAS and Higher Education Authority should have regard to this overarching objective in the development of future policy and strategy, including the successor strategy to the SOLAS Further Education and Training Strategy 2014 – 2019.

## **1. Introduction**

### **1.1 Introduction**

As the economy continues to grow and tends towards full employment with unemployment at 4.5%<sup>1</sup>, the demand for skills in key sectors will continue to increase. Apprenticeships play a key role in addressing this challenge and for preparing individuals for long-term careers in specific sectors. The aim of this paper is to analyse funding for apprenticeships and examine the cost of delivery and the registrations for programmes. The structure of this paper is as follows:

- Section 2 examines the current context and sets out recent developments in the sector.
- Section 3 interrogates the available data including recent trends in participation, age and gender profile, retention rates and costs.
- Section 4 presents conclusions and findings from this analysis.

### **1.2 Methodology**

The paper draws on desk-based quantitative analysis of a range of recently compiled and existing administrative data provided to the Vote by the Department of Education and Skills (DES), as well as existing Higher Education Authority (HEA), SOLAS and the Expert Group on Future Skills Needs data.

### **1.3 Quality Assurance (QA)**

Quality assurance refers to the concepts of:

- Accuracy of the data and other information presented, and
- Rigour applied in using analytical techniques and integrity in reporting.

As part of the quality assurance process feedback was sought on the analysis format (structure), clarity (quality of writing), accuracy (reliability of data), robustness (methodological rigour), and consistency (between evidence and conclusions). Further detail on the quality assurance process is set out in Appendix 1. It is important to note that involvement in the QA process does not imply agreement with the findings of the analysis. In addition, the Department of Education and Skills, SOLAS and the Higher Education Authority were consulted on the paper for observations and fact checking.

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<sup>1</sup> [https://pdf.cso.ie/www/pdf/20190702094046\\_Monthly\\_Unemployment\\_June\\_2019\\_summary.pdf](https://pdf.cso.ie/www/pdf/20190702094046_Monthly_Unemployment_June_2019_summary.pdf)

## 2. Context

The *Programme for Government* (2016) reaffirmed the Government's commitment to investing in apprenticeships. The Programme aimed for 31,000 apprenticeship registrations by 2020, across 100 programmes, and every region of Ireland, supported by *The Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016-2020*.

Successive budgets increased investment in apprenticeships. €70 million was allocated in Budget 2017. Budget 2018 allocated a total of €119 million, which provided for an additional 10 programmes and 6,000 extra registration places. Budget 2019 provided €142.3 million for an additional 10 programmes and 7,000 apprenticeship places. As of May 2019, there were 45 national apprenticeship programmes (See Appendix 2 Table vi), with a further 36 new apprenticeships in development, spread across 10 sectors.

### 2.1 Apprenticeships

The Industrial Training Act (1967) and Quality Assurance Act (2012) underpin the apprenticeship system in Ireland. An apprenticeship is 'a structured programme of training and education that combines workplace learning with learning in an education-training centre',<sup>2</sup> which prepares an employee for a specific occupation, providing them with the relevant qualifications on the National Framework Qualification (NFQ). Apprenticeships in Ireland are categorised as 'craft' (pre-2016) or 'new' (post-2016), and take two to four years to complete, earning a level five and upwards on the NFQ.

The Apprenticeship Council was established in 2014, to implement key recommendations of the 2013 Review of Apprenticeship Training in Ireland, including expansion of apprenticeships into newer sectors of the economy, advising on the design, duration and provision of apprenticeships, and identifying future apprenticeship requirements. Craft apprenticeships provide specific craft related skills including, for example in the construction sector, plumbing, plastering and electrical. While post-2016 apprenticeships include economic sectors such as bio-pharma, financial services, ICT, retail associates, sales specialists and healthcare assistants (See Appendix 2, Table vii).

Craft apprentices receive a training allowance (Table 1) during off the job elements of their apprenticeships and typically take up to four years, funded by both the Exchequer and NTF. This allowance varies with each phase and trade, in line with gross wage norms in that sector. New apprenticeships are minimum two years long and do not receive a training allowance from the State during their training. State investment in new apprenticeships is for the developmental costs of programmes, which are designed, developed, and delivered via HEIs, employers, and private and public consortia, and delivery and quality assurance of off the job training.

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<sup>2</sup> 'Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016-2020' Department of Education and Skills pg. 4

### Role of Employers in Apprenticeships

The role of Employers is central to apprenticeships. In order to train as an apprentice a person first needs to be recruited by a SOLAS approved employer. Employers also advise the Board of SOLAS on pre 2016 apprenticeships on the review and ongoing development of curricula in the craft trades through their representatives on the National Apprenticeship Advisory Committee (NAAC).

The new consortia apprenticeships - many of which were proposed by employers - are led by employers and include education and training providers, whose role is to ensure the apprenticeship programme conforms to, and evolves with, the requirements of the occupation. They ensure that the apprenticeship programme is enterprise-led and meets labour market needs.

While complying with their statutory obligations under the Industrial Training Act 1967, employers are key to identifying occupational needs which define the programmes' curricula, recruitment and payment of apprentices along with providing on the job training of apprentices. In conjunction with education and training providers, employers also ensure programme delivery.

Typically both new and craft apprentices pay a student contribution for training/education whilst in a Higher Education Institute. This is on a pro-rata basis, ordinarily around €1,000 per apprentice per period. However, the student contribution for post 2016 apprenticeships varies across programmes, given that the off the job training has a more flexible structure, with online, distance, and/or blended learning incorporated. For example, the contribution for a Financial Services apprentice is €1,000, while a Chef de Partie's contribution starts at €1,500 in year one, decreasing to €750 by year three. No fee is required for any apprenticeship training which takes place in an Educational Training Board (ETB).

Table 1: Craft Apprenticeship Allowances 2018

Apprenticeship Sector	Phase 2	Phase 4	Phase 6	(Year 4)*
Engineering	€202.71	€304.29	€451.26	€545.70
Construction	€245.84	€369.14	€553.70	€664.44
Motor	€195.25	€293.17	€439.75	€527.70
Printing (4 year Cycle)	€143.68	€215.75	€323.61	€388.36
Electrical	€260.91	€391.56	€565.50	€696.15

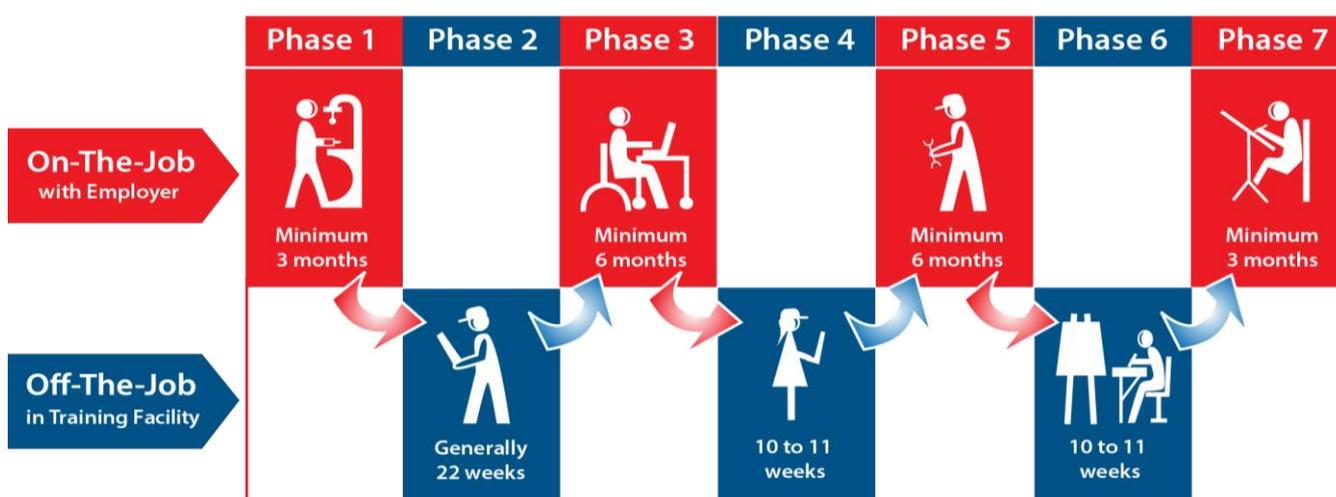
Source: Craft Apprenticeship Gross Wage Norms (June 2018): <http://www.apprenticeship.ie/en/current/Pages/ApprenticeInfo.aspx>

## 2.2 Structure of Craft Apprenticeships

Pre-2016 apprenticeships are structured into two distinct parts and subdivided into seven phases (Diagram 1). The two key parts are training on the job with their employer and learning in an education setting. Apprenticeship programmes are further sub-divided into phases of varying duration. Phases one, three, five, and seven are spent on the job training with an employer, taking an average of three to six months to complete. For the duration of their apprenticeship, apprentices have a contract of employment with their employer. The employer must have formal consent from SOLAS to employ apprentices, pay their wages, and have the capacity to provide the full training required.

Off-the-job learning takes place in phases two in an ETB with phases four and six usually delivered in an Institute of Technology (IoT). This off the job learning focuses not only on providing occupation/trade specific learning, but also on broader education in areas such as IT, English and Maths. Phase two lasts for 20 to 22 weeks, while phases four and six last for 10 to 12 weeks, depending on the apprenticeship (see Appendix 2, Table vi). Overall, an apprentice will spend at least 50% of their training with their employer. New apprenticeships have a more flexible training structure which does not use the phase structure, but instead allows for more online learning, blended learning and day releases from their employer to attend training. The number of active apprentices during each phase of 2018 is presented in Appendix 2, Table V.

*Craft Apprenticeship Phases: Diagram 1*



### **2.3 Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016-2020**

The *Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016-2020* aims to expand the total number of apprentice programmes up to 78 by 2020. These would cater for levels 5-10 on the National Framework of Qualifications,<sup>3</sup> focusing on areas such as ICT, financial services, and biopharma.<sup>4</sup> New programmes would be additional to the current 25 craft programmes that cover sectors like construction, electrical and motor vehicles. By 2020, the *Action Plan* aims to have registered a cumulative 50,000 apprentices and trainees in the period, with the objectives of assisting economic growth, targeting key areas experiencing skills deficits, and assisting in achieving other overarching aims in construction such as Rebuilding Ireland and Ireland 2040.

### **2.4 Meeting the Skills Needs of the Economy / Rationale**

There are multiple policy objectives underpinning the rationale for apprenticeships, as set out in the 2013 Review of Apprenticeship Training and 2016 Action Plan. This includes, improving educational access for a broader range of people by growing work based learning; increasing and diversifying the skillset of the workforce to meet the demands of the ever-evolving economy; and providing employers with access to a pool of talent and delivering strong employment.<sup>5</sup>

To meet the current and future skills needs of the economy, an appropriately educated and skilled workforce is essential. The apprenticeship model and the wider FET sector have a key role in meeting these demands. Research by the ESRI and the European Centre for the Development of Vocational Training showed a high level of skill underutilisation among employees in Ireland, with Irish workers reporting education or skills in excess of those required for their job. This is the third and fourth highest respectively of the other 28 European countries.<sup>6</sup> The Department of Public Expenditure Spending Review paper (2018) 'Understanding the Funding Needs in Higher Education' also noted that workers with a higher academic degree tend to have the highest persistence of skills mismatch, with potentially adverse impacts for individuals, firms and the economy.<sup>7</sup> This underscores the need, as highlighted in several reviews<sup>8</sup>, for an integrated and shared strategic vision for both HE and FET sectors, to support skills needs in the economy and support pathways for career progression.

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<sup>3</sup> 'Review of pathways to participation in apprenticeship' SOLAS, November 2018 pg. 3.

<sup>4</sup> 'Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016-2020' Department of Education and Skills pg. 5

<sup>5</sup> 'Review of Apprenticeship Training in Ireland' Department of Education and Skills 2013

<sup>6</sup> 'Overeducation in Europe: Trends, convergence, and drivers' ESRI, McGuinness, Bergin and Whelan, 2018

<sup>7</sup> 'Understanding the funding Needs in Higher Education', Education and Skills Vote, Spending Review, 2018 pg.

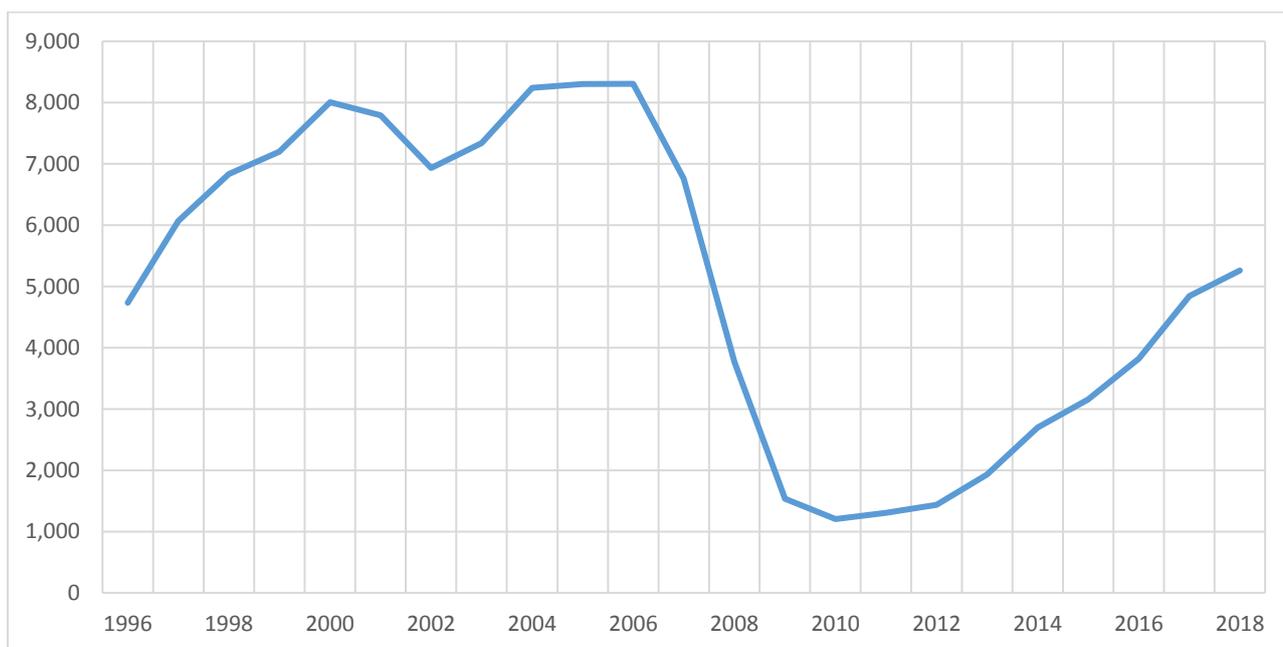
<sup>8</sup> 'Understanding the funding Needs in Higher Education', Education and Skills Vote, Spending Review, 2018 and "Progress Review of the Further Education and Training Strategy 2014 – 2019", Prospectus, June 2018; Review of National Training Fund, Indecon International Research Economists, 2018

## 2.5. Apprenticeship Registration and Population Timeline in Ireland

### 2.5.1 1996 – 2008

In 1973, the Government produced a document ‘Apprenticeship – A new approach’ to revise the previous apprenticeship system, and modernise on the job training for those wishing to learn a specific skill or trade. The timescale for completion of apprenticeships was reduced from five to four years in 1976 to facilitate faster completion of programmes.<sup>9</sup> In 1991, the standards-based apprenticeship system was developed to increase flexibility for employers and apprentices, and award apprenticeship certification, at reduced cost to the Exchequer, while still maintaining a high quality of apprenticeships.<sup>10</sup> Despite being open to all, employers received most applications from early-school leavers and those finished second level<sup>11</sup>. In 1996, there were 4,734 apprenticeship registrations (i.e. new applications), which grew to 8,058 by 2000 (Graph 1). Following a contraction in the economy in 2002, registrations fell to 6,932, but subsequent economic growth saw registrations peak in 2006 at 8,307.

Graph 1: Total Apprenticeship Registrations 1996 – 2018



Demand for labour in the construction sector was high during this time, with construction and electrical related apprenticeships, accounting for up to 84% of registrations that year. The onset of the financial crisis and the collapse of the construction sector resulted in apprenticeship registrations halving to 3,765 in 2008 and the overall apprenticeship population decreasing to 15,000 by 2009 (Graph 2). Construction apprenticeships experienced the most significant decrease in registrations during this time, from 4,636 in

<sup>9</sup> ‘Further Education and Training in Ireland: Past, Present and Future’ ESRI, 2014 pg. 12

<sup>10</sup> ‘Standards based apprenticeship in Ireland: Are changes required to meet economic & social needs’ FAS 2013pPg.11

<sup>11</sup> ‘Review of pathways to participation in apprenticeship’ SOLAS, November 2018, pg. 5

2005, to 244 by 2010 - a reduction of 95% compared to engineering which contracted by some 50% over the same period.

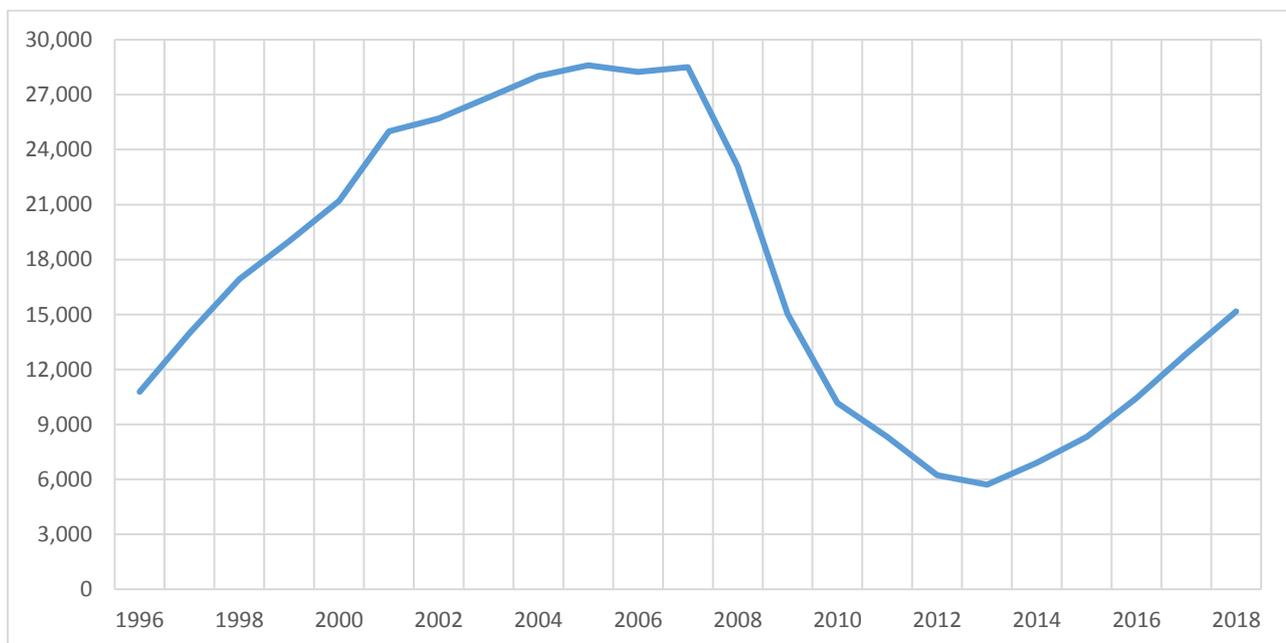
### 2.5.2 2009 – 2013

By 2010, there were 1,204 registrations across all programmes (Graph 1), 57% of these were in construction or electrical related apprenticeships. Despite an increase in registrations, by 2011 numbers were 86% lower than their peak in 2006 and the total population (i.e. total number of apprentices in all phases) continued to fall from 10,171 in 2010 to 5,721 in 2013. By 2013, the apprenticeship population fell by almost 23,000 (Graph 2). In 2012 alone, 2,600 apprentices undertaking their on the job training were made redundant due to firms closing, 77% of these apprentices were training in construction and electrical related fields.

### 2.5.3 2014 – 2018

In 2014, apprenticeship numbers began recovering with 2,700 new registrations and the overall population growing to 7,000. While there are large annual percentage increases in new registrations, it must be borne in mind the low base in 2013 from which the population was recovering. For example, from 2013 to 2014, when the population was at its lowest in decades, the population increased by 1,000 apprentices representing a 20% increase in registrations. However, in recent years the apprenticeship population and level of registrations have seen steady recovery in numbers as the economy has recovered.

Graph 2: Apprenticeship Population 1996 – 2018



### 3. Apprenticeship Profile - International Comparison

#### 3.1 Apprenticeship Duration

The varying definition of what constitutes an apprenticeship makes international comparison by time length insufficient, as some countries run short duration courses classified as apprenticeships. The most common apprenticeship duration internationally is 2 - 4 years, but this varies depending on programmes (Table 2).

Apprenticeships in Ireland typically take 2 to 4 years, which is similar to Switzerland, Italy and Australia. In contrast, the UK, Belgium and Germany have shorter apprenticeship durations of one to two years, while in Norway and Canada courses can last up to 5 years. In Japan, apprenticeships can last for three months up to two years, to train apprentices quickly in specific areas experiencing demand. The length of time training with employers also differs, for example in Ireland a minimum of 50% of the apprenticeship duration must be spent training with their employer, however, in England this is only 20%.<sup>12</sup>

Similarly, where apprenticeships are positioned in the overall education and training framework of countries is not typically uniform. Some European countries including Germany, include apprenticeships in second level education, while others including Ireland, offer apprenticeships following second level education and across further and higher education. Again, without detailed data from other countries on key programme elements, such as the type of course provided, skills profile and time spent on the job, international comparisons are difficult.

*Table 2: Apprenticeship Duration by Country*

Country	Duration (Years)	Country	Duration (Years)
Australia	3 – 4	Ireland	2 – 4
Belgium	1 – 3	Italy	3 – 4
Canada	2 – 5	Japan	0.25 – 2
Denmark	3 – 3.5	Netherlands	2 – 4
England	1 – 1.5	New Zealand	3 – 4
Finland	1 – 2.5	Norway	4 – 5
France	1 – 2	Switzerland	3 – 4
Germany	2 – 3.5	United States	4

<sup>12</sup> 'Apprenticeships and skills policy in England,' Briefing Paper CBP 03052, Andrew Powell, January 2019

### 3.2 Age Profile of Apprenticeships

Irish data (Table 3) shows the age profile of apprentices is young compared to other countries and is predominantly taken up by those of an age when second level education is completed. From a total population of over 15,000 in 2018, 45% are under 19 and 40% aged 20 to 24 years. There were very few older apprentices with 10% aged 25-29 and 5% over 30. Compared to Australia, where 33% of apprentices were aged over 25 in 2018. In England, apprenticeship ages are dispersed, under 19s comprise 28% and over 35s 21% of the apprenticeship population in 2018 (Table 4).

In Northern Ireland, 89% of apprentices were aged 24 or younger, with only 11% over 25 years (Table 5). This shows a varying international pattern of age composition for apprentice uptake. In Ireland and Northern Ireland, apprenticeships to-date tend to be taken up by younger age cohorts between ages 16 and 24, in Australia one third of apprentices were aged over 25, while in England apprenticeships have older age groups comprising the same proportion of the population as younger ages.

*Table 3: Age Profile Apprenticeships Ireland, December 2018*

<b>Apprenticeships</b>	<b>Age 15 - 19</b>	<b>Age 20 - 24</b>	<b>Age 25 - 29</b>	<b>Age 30 +</b>	<b>Total</b>
Construction	1,765	1,496	340	123	3,724
Electrical	2,778	2,656	696	293	6,423
Engineering	983	814	190	116	2,103
Motor	1,289	914	167	61	2,431
Print Media	-	5	3	-	8
Financial services	66	190	69	67	392
Hospitality	9	51	39	40	139
Other Programmes	14	45	26	68	153
<b>Total</b>	<b>6,904</b>	<b>6,171</b>	<b>1,530</b>	<b>768</b>	<b>15,373</b>

Source: Department of Education and Skills

*Table 4: Age Profile Apprenticeships England 2013 - 2018*

<b>Age Category</b>	<b>Age 15 - 18</b>	<b>Age 19 – 24</b>	<b>Age 25 +</b>	<b>Total</b>
2013 - 2014	120,000	159,000	162,000	441,000
2014 - 2015	126,000	160,000	214,000	500,000
2015 - 2016	131,000	154,000	224,000	509,000
2016 - 2017	122,700	142,300	230,000	495,000
2017 - 2018	106,400	113,700	155,500	375,600
<b>Total</b>	<b>606,100</b>	<b>729,000</b>	<b>985,500</b>	<b>2,320,600</b>

Source: Apprenticeship Statistics: England Briefing Paper 2019

Table 5: Age Profile Apprenticeship Registrations Northern Ireland 2013 - 2018

Year	Age 16 - 19	Age 20 - 24	Age 25+	Total
2013 - 2014	2,037	2,792	374	5,203
2014 - 2015	2,272	2,683	496	5,451
2015 - 2016	2,526	2,737	661	5,924
2016 - 2017	2,553	2,816	1,050	6,419
2017 - 2018	2,303	2,398	478	5,179
<b>Total</b>	<b>11,691</b>	<b>13,426</b>	<b>3,059</b>	<b>28,176</b>

Source: Statistical Bulletin Apprenticeship Northern Ireland, Dept. of the Economy, February 2019

### 3.3 Gender Participation / Registrations

#### 3.3.1 Craft Apprenticeships

The 2018 Pathways to Apprenticeships in Ireland report states that the apprenticeship population is predominantly males under 25, with 341 female (2.2%) apprentices in 2018<sup>13</sup> out of the apprenticeship population of 15,373 (Graph 3). Of the overall 341 females registered, 13 females registered in construction out of 3,724 apprentices, and 48 females registered in electrical programmes out of 6,423 apprentices. Compared to 1999, there were 112 female apprentices, 12 in construction and 39 in electrical. This shows limited changes to female participation rates in craft apprenticeships over the last 20-year period.

To incentivise female participation in craft apprenticeships, SOLAS offers a bursary of c. €2,700 to employers to encourage the employment of female craft apprentices. The bursary is managed by the relevant ETB's as a contribution towards the apprentice's salary. The bursary is not currently paid to new apprenticeship employers. The Review of Pathways to Apprenticeships report examined the progress made in increasing the female participation in apprenticeships, and noted the bursary did not make any significant impact on female participation in the last decade.<sup>14</sup> The reasons for this have not yet been examined.

<sup>13</sup> 'Review of pathways to participation in apprenticeship' SOLAS, November 2018, pg. 3

<sup>14</sup> 'Review of pathways to participation in apprenticeship' SOLAS, November 2018, pg. 10

Graph 3: Male - Female Apprentices, Ireland 2010 – 2018



Source: Department of Education and Skills

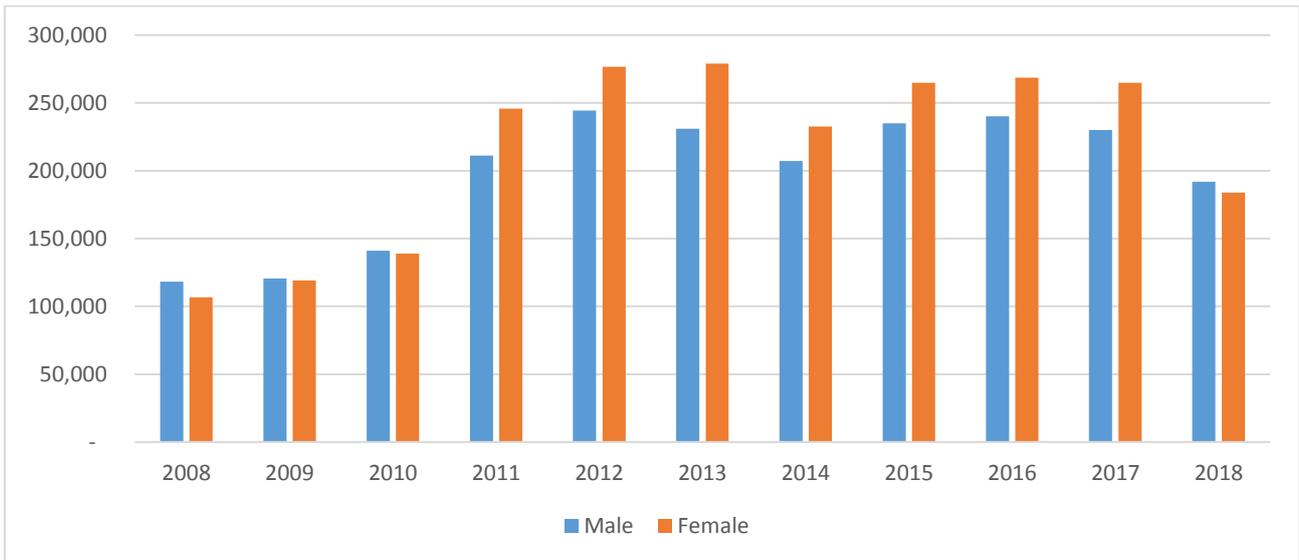
### 3.3.2 New Apprenticeships

The objectives of the new consortia-led apprenticeships were to expand into areas experiencing skills shortages, offering modern apprenticeships and to increase female participation by offering alternative programmes. This allows employers experiencing sustained demand for skilled workers to train in work-ready employees. Consortia programmes accounted for 75% of female apprentice registrations in 2018, but participation varies considerably between programmes.

New apprenticeship programmes have generally fared better with increasing female participation. In total, 251 females registered for new apprenticeships, an increase from only 27 when new programmes were launched in 2016. Financial services received the highest number of female registrations out of all new apprenticeships, with 176 out of 392 registrations (45%); this was an increase from 100 females in 2017.

In comparison, more females registered for apprenticeships than males in England since 2011, representing 54% of the half a million registrations in 2018 (Graph 4). Female apprenticeship registrations in England while significantly higher are concentrated in a select number of courses, with 66% of registrations in just three areas: Health, Public Services and Care; Business, Administration and Law; and Retail and Commercial Enterprise – some of which are not typically considered as apprenticeships in an Irish context.

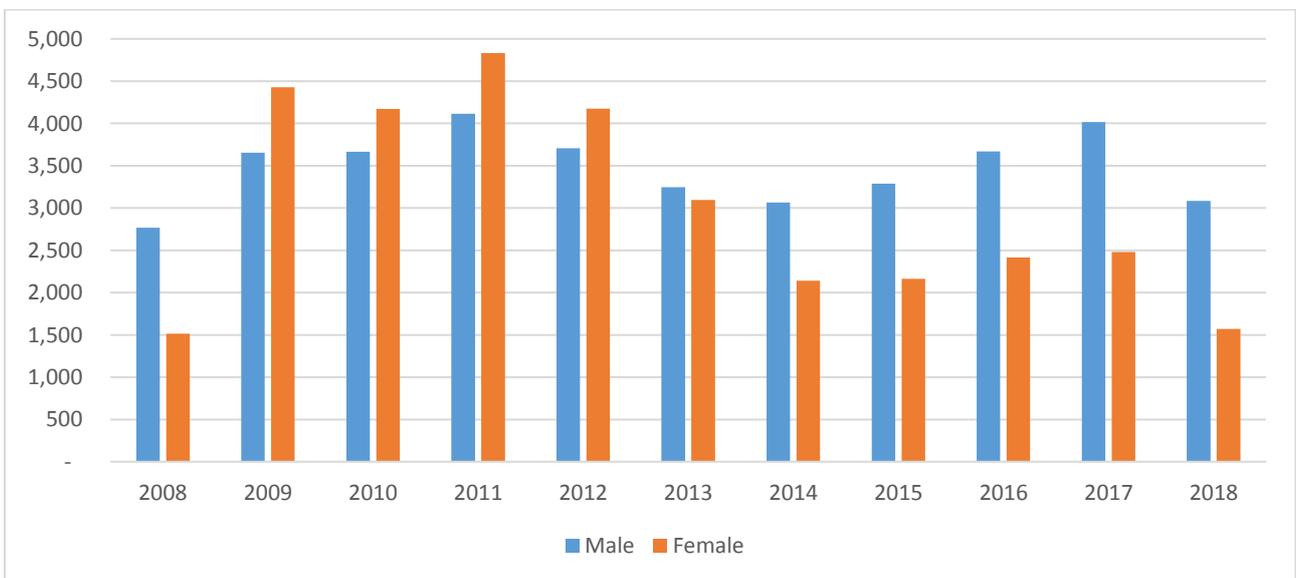
Graph 4: Male-Female Apprentices, England 2008 - 2018



Source: Apprenticeship Statistics: England Briefing Paper 2019

Northern Ireland reconfigured its apprenticeship framework in 2008, creating two separate bodies, Apprenticeship Northern Ireland and Training for Success. Apprenticeships targeted those aged 16-24 but were expanded to over 25s in 2012 to increase registrations to priority sectors and address labour shortages in the economy. From 2008 to 2018, over 71,000 apprentices registered in Northern Ireland, compared to 31,000 in Ireland. Female registrations outnumbered males until 2012, but following reforms to address specific skills shortages, female registrations halved from 4,200 in 2012 to 2,162 by 2015. The gender ratio varies from 55% females in 2009, to 34% in April 2018 (Graph 5), with retail, childcare, and social care the most popular female apprenticeships, as also seen in England.

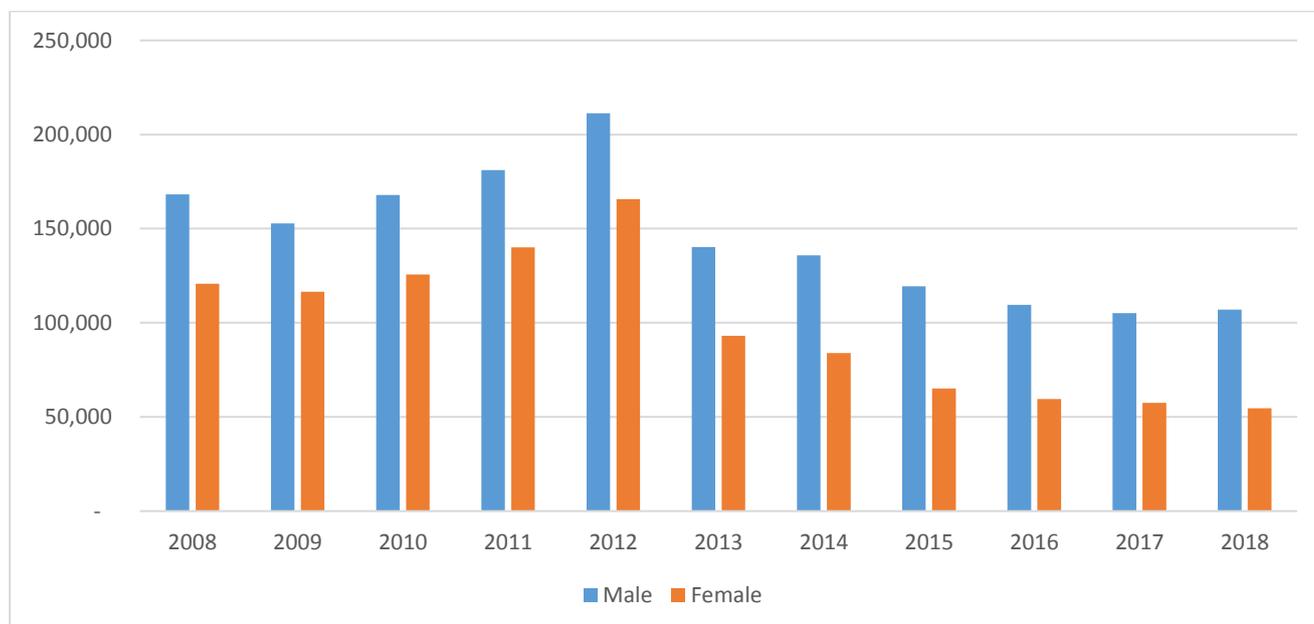
Graph 5: Northern Ireland Male-Female Apprentices 2008 – 2018



Source: Statistical Bulletin Apprenticeship Northern Ireland, Dept. of the Economy, February 2019

In Australia, female apprenticeship registrations have been decreasing since 2014, but the gender ratio has been consistent at around 38% in 2014 to 34% in 2018<sup>15</sup> (Graph 6), with “community service work” the most popular apprenticeship (20% registrations), followed by clerical and administration (11%).

*Graph 6: Apprenticeship Registrations Australia 2008 - 2018*



### 3.4 Apprenticeship Rates of Pay Internationally

In Ireland, both the State and employers contribute to funding craft apprentices during their training. They receive payment from their employer during on-the-job phases, while the National Training Fund supports allowances to apprentices when off-the-job. Payment to apprentices varies depending on the programme and phase. When apprentices progress into later stages and have gained more expertise and experience, the allowances increase. For example, an apprentice in phase 2 of a motor apprenticeship gets an allowance of €195.25 per week, but during phase 6, this increases to €439.75. Alternatively, electrical apprentices receive €260.91 per week in phase two, rising to €696.15 in phase 8 (Table 1).

International comparisons show there is no uniform approach in paying apprenticeships and vary on a range of factors, including the economic sector, age, number of apprentices, or programme duration. Some countries apply a minimum wage per hour to apprentices, such as England, while others apprentices receive benefits in kind, such as free accommodation, insurance, or transport for the full duration, such as Denmark. In Ireland, allowances are determined based on sector and phase. This results in the cost of apprenticeships varying between countries and further complicates a comparative analysis when systems differ.

<sup>15</sup> Australia Apprentices and Trainees, June 2018 [https://www.ncver.edu.au/data/assets/pdf\\_file/0031/4257616/Apprentices-and-trainees-2018-AUS-June-quarter-infographic.pdf](https://www.ncver.edu.au/data/assets/pdf_file/0031/4257616/Apprentices-and-trainees-2018-AUS-June-quarter-infographic.pdf)

For example, in Australia, allowances depend on the time length of an apprenticeship or on age related minimum wage (Table 6). For the first year of a three-year apprenticeship, a weekly allowance, the equivalent of €292, is paid in year one and rises to €467 in year three. When an apprentice is over the age of 21, they receive payment based on length of training, or the minimum wage for over 21s, whichever is higher.<sup>16</sup> In England, apprentices working 40-hours per week are paid at least a minimum wage of £3.70 (€4.30) per hour in their first year, or if aged under 19 years. After their first year, or if aged over 20 and working full time, their wage rises to £6.15 per hour (€6.86).<sup>17</sup> In comparison, the equivalent hourly rates in Ireland given current weekly allowances, for an engineering apprentice working 40 hours a week, would receive €5.07 per hour in phase 2, rising to €13.64 per hour in phase 6. In Northern Ireland and Scotland apprentice’s wages are £3.90 (€4.35)<sup>18</sup> per hour for those aged 16-19, and £3.40 (€3.79) in Wales. This rises to £7.38 (€8.55) for those aged 21-24 and £7.83 (€9.07) for those over 25.

*Table 6: Australian Apprenticeship Allowances 2018 (Australian Dollars)*

Year		3 year	3.5 year	4 year
First year	(First 6 months)	\$468.00	(\$357.40)	\$357.40
Second year	(7 - 18 months)	\$638.20	(\$468.00)	\$468.00
Third year	(19 - 30 months)	\$748.80	(\$368.20)	\$638.20
Fourth year	(31 - 42 months)		(\$748.80)	\$748.80

### 3.5 Current Apprenticeship Targets 2016 – 2020

The *Action Plan for Apprenticeships and Traineeships* sets total registration targets for apprenticeships from 2016 to 2020. Registration targets are used in this analysis to assess whether sufficient intake of apprentices was achieved annually. However, it is acknowledged these targets were set in 2016 to reflect the projected demand for apprentices and for industry skills needs over a five-year period. There are several limitations with using registrations as a measure of effectiveness as it does not account for other key variables such as completion rates or the programmes types. Sufficient registrations for courses and high retention/completion rates are important to address skills shortages in the economy and to monitor an apprenticeship programmes’ success. Registrations have not reached annual targets in new apprenticeships (Appendix 2, Table ii - iii).

It is of note, however, that there is no shortage of prospective apprentices seeking apprenticeship places but a limited number can be taken on. For example in 2018, 34 apprentice jobs in the Civil Service received over 700 applications, and 500 applications for 25 apprenticeship jobs in international financial services. Finally, there were over 600 applications to date in a live competition for 120 accounting technician apprentice jobs.

<sup>16</sup> <https://www.commerce.wa.gov.au/labour-relations/pay-rates-apprentices>

<sup>17</sup> <https://www.gov.uk/am-i-getting-minimum-wage>

<sup>18</sup> <https://www.nidirect.gov.uk/articles/national-minimum-wage-and-living-wage>

### 3.5.1 Craft Apprenticeships

Craft apprenticeships are estimated, with a good level of accuracy, using a forecasting model by the Skills and Labour Market Research Unit in SOLAS. The model helped to inform the craft registrations targets under the *Action Plan* - the only target to be achieved to date. In 2016, registrations surpassed targets by 10% (3,751 registrations) and by 5% in 2017 (4,508 registrations). By 2018, registrations were above target by 7% (5,058 registrations) (Appendix 2, Table ii). This demonstrates a strong demand for the traditional craft apprentice programmes. It is expected registrations will reach 5,087 in 2019 and 5,587 in 2020. Currently craft registrations are still below 2007 levels, with cumulative registrations ahead of target by 8% or 1,074 craft apprentice registrations (Graph 7).

Graph 7: Craft Apprenticeship New Registrations



Source: *Action Plan for Apprenticeships 2016-2020*, Department of Education and Skills – No 2019 registration data is available

### 3.5.2 New Apprenticeships

New Consortia-led apprenticeships have experienced lower than expected registration levels, due to lack of employers signing up to offer apprenticeships, and have not met the *Action Plan* targets. Currently a forecasting model is not in place for new apprenticeship programmes, partly given there is not a large enough historical base to work from as these are new programmes, which are less established. It is also worth bearing in mind new apprenticeships are just one possible entry point to an occupation in the newer sectors of the economy, which is in contrast to craft apprenticeships. In 2016, there were 79 registrations, 95% of the target. In 2017, 335 apprentices registered, 42% of the 800 expected. In 2018, 590 registrations were received, 39% of the 1,500 target (Graph 8). Action Plan target registrations for 2019 and 2020 are 2,297 and 3,413, but it is unclear if these targets will be achieved (Appendix 2, Table iii). To date, from 2016-2018 around 42% of the total new apprenticeship target registrations were achieved - 1,004 out of a target of 2,382 registrations.

Graph 8: New Apprenticeship Registrations



Source: Action Plan for Apprenticeships 2016-2020, Department of Education and Skills – No 2019 registration data is available

### 3.5.3 Apprenticeship Population

At an aggregate level, including both craft and new, the total apprentice population from 2016 to 2018 has been broadly in line with expectations. In 2016, the apprenticeship population was 10,445, just 6% under the forecast of 11,107. In 2017, there were 12,849 apprentices or 89% of the forecast and in 2018; the population was 83% of the forecast, with 15,373 apprentices (Table 7). The overall population is expected to reach 18,000 apprentices by 2019, a similar level to 1998, which has grown due to the increase in employers taking on apprentices in 2018, which stands at 5,500.<sup>19</sup>

However, aggregate apprentice figures mask significant divergences at individual programme level. Given that some apprenticeship programmes (e.g. electrical and construction) had more registrations than expected, this offset apprentice programmes elsewhere which failed to reach targets. While total population figures are increasing, they are heavily dependent on a small number of courses primarily in the craft apprenticeships. Examining apprentice population at programme level gives a better indication of where targets are not being met.

<sup>19</sup> 'Review of pathways to participation in apprenticeship' SOLAS, November 2018, pg. 2

Table 7: Aggregate Apprenticeship Population Forecast 2016 – 2020

Year	Forecast	Total	Participation Rate
2016	11,107	10,445	94%
2017	14,464	12,849	89%
2018	18,613	15,373	83%
2019	22,950	-	-
2020	27,798	-	-

Source: Department of Education and Skills

### 3.6 Non completion Rates

The apprenticeship population declined significantly after 2007 when it experienced very low registration levels and problems of non-completion in certain sectors, particularly construction<sup>20</sup>. Registration data provided by the Department of Education and Skills from 2000 to 2013 show low completion in some programmes during this time as a percentage of the total registrations. Programmes with the lowest completion rates, in particular during the downturn, included electronic security systems (49%), brick, and stone laying (52%), but redundancy may be a contributing factor to non-completion rates during this time given the difficulties in construction. Apprenticeships less reliant on the construction sector had much higher completion rates, such as aircraft mechanics (78%), agricultural mechanics (73%) and heavy vehicle mechanics (78%). Timing issues mean that there is no available data on the post 2013 cohort of apprentices.

If an apprentice becomes redundant during their apprenticeship, they have a number of options to continue their training. They are able to enrol in another training course to improve their skills, enrol in a range of night courses run in ETB training centres, or allowed to register with their local INTREO office.<sup>21</sup> Employers who make an apprentice redundant cannot take on another apprentice without first offering the redundant apprentice an opportunity for reemployment.

### 3.7 Apprenticeship Costs

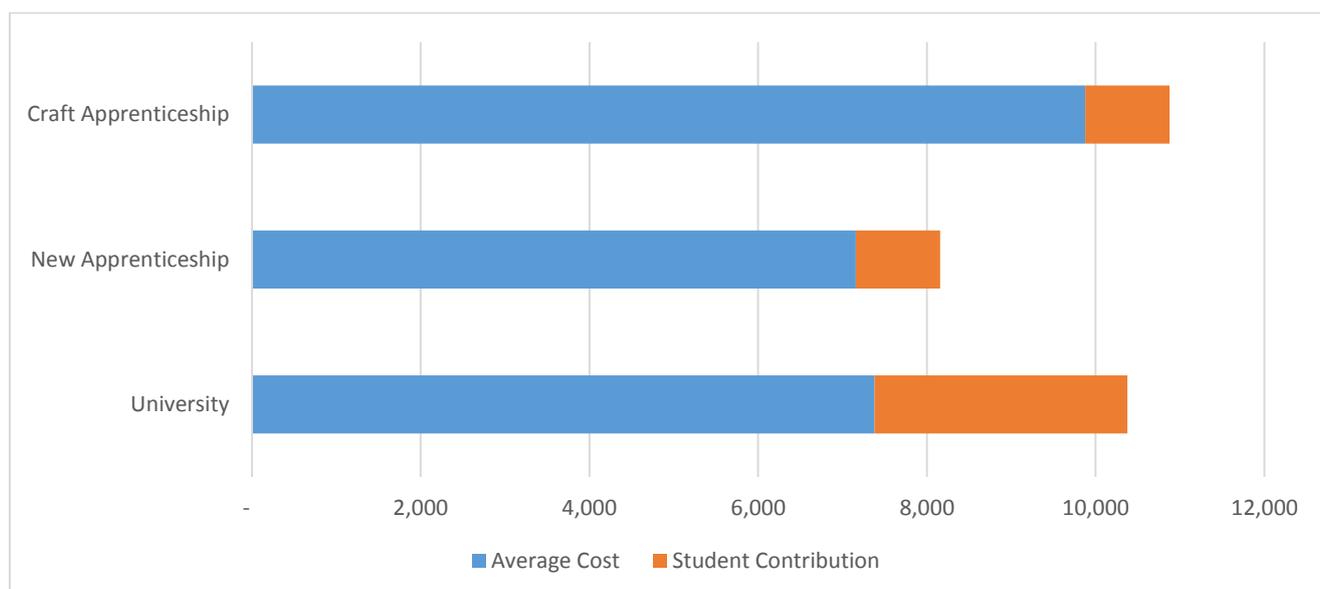
Cost data provided by DES indicates significant variation between the average costs of apprenticeships. Latest data provided by the Department of Education for 2015 - 2018 shows the average cost for craft apprenticeships is €7,159 year per annum with a total average cost of €28,636 for a four-year apprenticeship. New consortia-led apprenticeships cost, on average, €9,877 per annum. In comparison, the average Exchequer cost per student across higher education institutions (state grants, student contributions, other income etc.) is €10,379.<sup>22</sup> Graph 9 below presents a comparison of average costs. Data provided by the Department of Education and Skills (Table 8) from 2016 to 2018 shows the total expenditure for apprenticeships.

<sup>20</sup> 'Capacity constraints in the Irish economy? A partial equilibrium approach' ESRI Research Note, Kieran McQuinn, 2018, pg. 3

<sup>21</sup> <http://www.apprenticeship.ie/en/current/Pages/ApprenticeInfo.aspx>

<sup>22</sup> <https://hea.ie/assets/uploads/2017/06/HEA-RFAM-Working-Paper-6-Costs-of-Higher-Education-Provision-06217.pdf>

Graph 9: Average Cost to the Exchequer (€) / Student Contribution per annum per student / Apprentice (2018)



Source: Department of Education and Skills, Higher Education Authority

Table 8: Apprenticeship Expenditure 2016 - 2018

Year	2016	2017	2018	Total
	(€ million)	(€ million)	(€ million)	(€ million)
Craft Apprenticeship	70.5	86.2	111.8	268.5
New Apprenticeships	1.2	2.7	6.2	10.2
<b>Total</b>	<b>71.7</b>	<b>88.9</b>	<b>118</b>	<b>278.7</b>

Source: Department of Education and Skills. Rounding can effect totals.

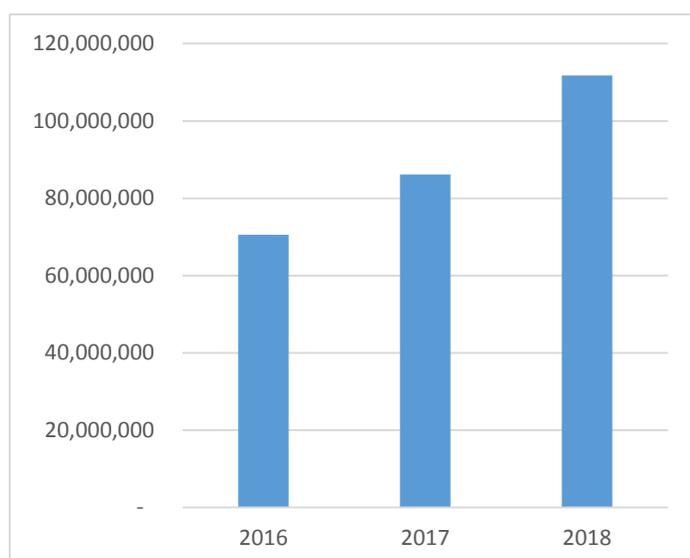
### 3.7.1 Craft Apprenticeships

The cost to the State/National Training Fund for craft apprentices begins at phase 2, when apprentices receive an allowance during off the job phases. Department of Education and Skills data for 2015-2018 indicates the average cost of a craft apprentice is €7,159 per annum. Apprentices pay a contribution on a pro-rata basis of the time-spent in an Institute of Technology, typically one-third of the cost paid by students attending a full academic year, around €1,000 per apprentice per period. Cost data provided by the Department of Education and Skills (Table 8) (using SOLAS and ETB data) shows the total cost for all craft apprenticeships was €70.5 million in 2016, €86.2 million in 2017 and €111.8 million in 2018, totalling €268.5 million (Graph 10).

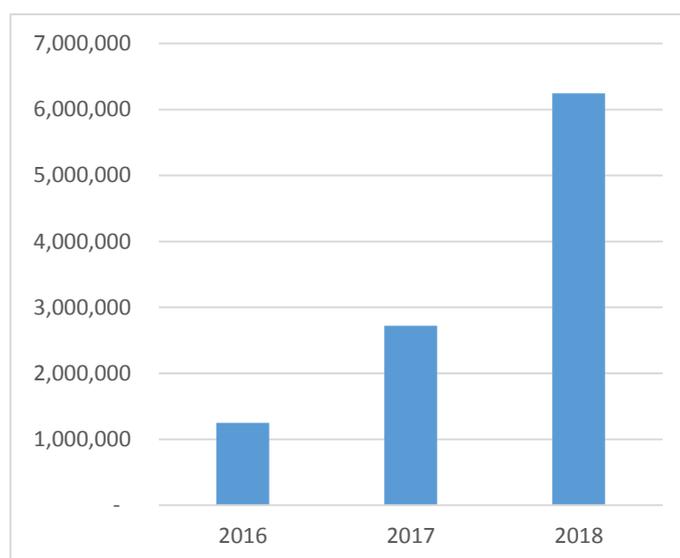
### 3.7.2 New Apprenticeships

Department of Education and Skills data for 2016-2018 show average cost of new apprenticeships is €9,877 per annum. The data shows the cost for new apprenticeships was €1.2 million in 2016, €2.7 million in 2017 and €6.2 million in 2018, totalling €10.2 million (Graph 11). Apprentices also pay a pro-rata student contribution.

Graph 10: Craft Apprenticeship Costs (€)



Graph 11: New Apprenticeship Costs (€)



Source: Department of Education and Skills

Table 9 shows further Department of Education and Skills data on the cost breakdown for apprenticeships in 2018. The main cost behind craft apprenticeships is €50.8 million payment of allowances to apprentices, or 44% of total spend for 15,373 apprentices. HEA allocation costs were €29 million (28%), and Non-Allowances €17.1 million (15%). New apprenticeships main expenditure is €3.2 million for HEA allocation costs (51%), consortia costs of €2.4 million (38%) and non-allowance grants of €611,899 (10%).

Table 9: Apprenticeship Main Expenditure Categories 2018

Programme	Expenditure Category	Cost (€ million)
<b>Craft Apprenticeship</b>	Allowances	50.8
	SOLAS apprenticeship costs	2.43
	Non Allowances	17.1
	HEA Allocation	28.8
	Apprenticeship Salary Costs	12.6
<b>New Apprenticeship</b>	Non Allowance Grant	0.61
	SOLAS Apprenticeship Costs	0.45
	Consortia Costs	2.38
	HEA Allocation	3.21
	<b>Total</b>	<b>118</b>

Source: Department of Education and Skills

## **4. Conclusion and Findings**

### **1. Targets and forecasts**

The national expansion of apprenticeships in Ireland has increased registrations, however overall annual targets to-date have not been met. Since the Action Plan was launched in 2016, registration targets have not been met in post-2016 apprenticeships, while aggregate targets have been met in the pre-2016 craft apprenticeships. In 2018, the apprentice population was 15,373, with 94% of apprentices undertaking pre-2016 craft programmes, and 6% in new programmes. Craft programmes, driven by growing demand from employers and a strong embedded employer base, remain the backbone of the apprenticeship system, with electrical (42%), construction (24%) and motor (16%) programmes containing most apprentices in 2018. Overall registrations across all pre-2016 programmes are at similar levels to 1996, having experienced strong growth through the 2000s, a sharp decline in the economic crisis and a steady recovery in recent years.

New apprenticeships have taken hold in some areas but have failed to meet overall targets. This is despite programmes being led by industry after they identified skills shortages. New programmes have taken longer than anticipated to develop, although 20 such programmes are now available, and employer take-up in some of those apprenticeships has been slow. Employer demand for programmes varies with economic cycles and wider labour market conditions. This creates instances where the numbers of apprentices can significantly increase or decrease with overall economic conditions (particularly in areas such as construction), resulting in some programmes with large intakes and others with low numbers.

### **2. Data Availability**

Detailed cost data on apprenticeships was slow to compile, inconsistent and presented difficulties in analysis and interpretation. Detailed data presented in a consistent and standardised format is key to a full understanding of the costs of delivering apprenticeships, to allow for a proper evaluation and analysis of the sector. Apprenticeship expenditure takes place across a range of settings in higher and further education and training, is distributed through both SOLAS, ETBs and the Higher Education Authority and involves different models in pre-2016 and post-2016 apprenticeships. In this complex environment, consistent data would allow a full analysis of the main cost drivers in the sector and indicate whether significant changes in cost of provision arise from year to year, across the apprenticeship system and across funding recipients.

As apprenticeships grow into newer sectors of the economy and are still in a relatively early stage, DES, SOLAS and the HEA should embed a consistent approach to cost data collation, which supports proper evaluation of policy interventions to determine their effectiveness and efficiency. This data, as well as the other data already

collated by SOLAS, HEA and the Department of Education and Skills, such as registrations by sector, gender, ages, etc. should be published annually to allow for broader examination of expenditure and its impact.

### **3. Costs and Expenditure**

Significant investment by the Exchequer and the National Training Fund in apprenticeships (€338.5m) between 2015 and 2018 was made to address skill needs, support growth and productivity, build career paths and support policy objectives set out in the National Skills Strategy, the National Development Plan, Project Ireland 2040 and other initiatives.

The average annual cost of a craft apprenticeship place is €7,159 and €9,877 for a new apprenticeship place. While allowances are clearly identified as the main cost of craft apprenticeships, the main cost drivers of new apprenticeships are more diverse, including development costs and the costs of supporting consortia to run these apprenticeships. A more consistent view of fixed and marginal costs in new apprenticeship is needed for a better understanding of the contributing factors to the higher average cost of new apprenticeships, particularly given that participants on the post 2016 programmes do not receive an allowance.

The Action Plan to Expand Apprenticeship and Traineeship runs to 2020. The Department of Education and Skills, SOLAS, HEA and partners have been undertaking structured engagement with employers and education and training providers to understand what is working well in new apprenticeships and what challenges to growth exist. It is recommended that a formal evaluation of new apprenticeships, including value for money and cost effectiveness, is undertaken to inform a successor action plan.

### **4. Overarching Policy and Strategy considerations**

An appropriately educated and skilled workforce is key to meeting the current and future skills needs of the economy. The apprenticeship model and the wider FET sector have a key role in meeting these demands. Research by the ESRI and the European Centre for the Development of Vocational Training showed a high level of skill underutilisation among employees in Ireland, with Irish workers reporting education in excess of those required for their job compared with other EU countries. High levels of mismatch have potentially adverse impacts for individuals, firms and the economy and underscores the importance of an integrated and shared strategic vision for both the HE and FET sectors. The Department of Education and Skills, SOLAS and Higher Education Authority should have regard to this overarching objective in the development of future policy and strategy, including the successor strategy to the SOLAS Further Education and Training Strategy 2014 – 2019.

## Appendix 1: Quality Assurance Process

### Quality Assurance Process

To ensure accuracy and methodological rigour, the author engaged in the following quality assurance process.

#### ✓ Internal/Departmental

✓ Line management

✓ Spending Review Sub-group and Steering group

Other divisions/sections – Central Votes Section and the Public Service Reform and Delivery Office.

Peer review (IGEES network, seminars, conferences etc.)

#### ✓ External

✓ Other Government Department

Advisory group

Quality Assurance Group (QAG)

Peer review (IGEES network, seminars, conferences etc.)

External expert(s)

## Appendix 2: Action Plan for Apprenticeships and Traineeships 2016-2020

Table i: Action Plan for Apprenticeships and Traineeships 2016 - 2020

<b>Craft Apprenticeships</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Number of Apprenticeship programmes	27	27	27	27	27
Forecast new registration's p.a.*	3,390	4,147	4,697	5,087	5,587
<b>New Apprenticeships</b>					
Planned Number of programmes (total)	2	15	25	35	40
Planned new registrations p.a.	82	800	1,500	2,297	3,413
Total target registrations p.a.	3,472	4,947	6,197	7,384	9,000

= 31,000 cumulative new apprenticeship registrations by 2020

\*Forecast (as of October 2016) of new registrations on craft based apprenticeships provided by skills and labour market research unit (SLMRU) and apprenticeship services unit, SOLAS

Table ii: Craft Apprenticeship Registrations Targets

<b>Year</b>	<b>New Forecast Registrations Action Plan</b>	<b>New Completed Registrations</b>
2016	3,390	3,742
2017	4,147	4,508
2018	4,697	5,058
2019	5,087	-
2020	5,587	-

Table iii: New Apprenticeship Registration Targets

<b>Year</b>	<b>New Forecast Registrations Action Plan</b>	<b>New Completed Registrations</b>
2016	82	79
2017	800	335
2018	1,500	590
2019	2,297	-
2020	3,413	-

Table iv: Apprenticeship and Traineeship Expenditure 2016 - 2018

<b>Programme</b>	<b>Cost 2016 (€ million)</b>	<b>Cost 2017 (€ million)</b>	<b>Cost 2018 (€ million)</b>	<b>Total (€ million)</b>
Craft Apprentice	70.5	86.2	111.8	268.5
New Apprentice	1.2	2.7	6.2	10.2
<b>Total</b>	<b>71.7</b>	<b>88.9</b>	<b>118</b>	<b>278.7</b>

Source: Department of Education and Skills

Table v: Active Apprenticeships 2018

<b>Apprenticeship Programme</b>	<b>Phase1</b>	<b>Phase2</b>	<b>Phase3</b>	<b>Phase4</b>	<b>Phase5</b>	<b>Phase6</b>	<b>Phase7</b>	<b>Grand Total</b>
<b>Construction</b>	<b>1,047</b>	<b>370</b>	<b>976</b>	<b>14</b>	<b>823</b>	<b>16</b>	<b>478</b>	<b>3,724</b>
Brick & Stone laying	62		58		19		32	171
Cabinet Making							2	2
Carpentry & Joinery	366	172	393	14	366		168	1,479
Painting & Decorating	30	13	22		32		8	105
Plastering	16	18	15		19		10	78
Plumbing	507	151	409		336	16	221	1,640
Stonecutting & Stonemasonry	9		6				12	27
Wood Manufacturing & Finishing	57	16	73		51		25	222
<b>Electrical</b>	<b>2,364</b>	<b>807</b>	<b>1,513</b>	<b>42</b>	<b>1,047</b>	<b>44</b>	<b>606</b>	<b>6,423</b>
Aircraft Mechanics	4	70	47			28	31	180
Electrical	2,030	632	1,209		931		483	5,285
Electrical Instrumentation	127	49	115	31	27	16	6	371
Electronic Security Systems	48	14	38		12		28	140
Industrial Electrical Engineering	<b>54</b>							<b>54</b>
Instrumentation	11	14	1	11	8		6	51
Refrigeration and Air Conditioning	90	28	103		69		52	342
<b>Engineering</b>	<b>632</b>	<b>121</b>	<b>536</b>	<b>8</b>	<b>577</b>	<b>-</b>	<b>229</b>	<b>2103</b>
Farriery	11		1	8	5		2	27
Industrial Insulation	12	12	9		14			47
Mechanical Automation & Maintenance Fitting	145	26	169		189		87	616
Manufacturing Technology	73							73
Manufacturing Engineering	55							55
Metal Fabrication	150	68	221		210		80	729
Pipefitting	44	1	26		38		13	122
Polymer Processing Technology	38							38
Sheet Metalworking	58		44		33		10	145
Toolmaking	46	14	66		88		37	251
<b>Financial Services</b>	<b>392</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>392</b>
Accounting Technician	146							146
Insurance Practice	197							197
International Financial Services Associate	25							25
International Financial Services Specialist	24							24
<b>Motor</b>	<b>544</b>	<b>203</b>	<b>559</b>	<b>-</b>	<b>753</b>	<b>-</b>	<b>370</b>	<b>2,431</b>
Agricultural Mechanics	25	30	15		62		22	154
Construction Plant Fitting	70	12	56		62		48	248
Heavy Vehicle Mechanics	148	46	104		160		63	521
Motor Mechanics	273	107	345		401		218	1,344
Vehicle Body Repairs	28	8	39		68		21	164
<b>Printing &amp; Paper</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>8</b>
<b>Hospitality &amp; Food</b>	<b>139</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>139</b>
<b>Other (Logistics, Auctioneering, etc.)</b>	<b>153</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>153</b>
<b>Grand Total</b>	<b>5,271</b>	<b>1,501</b>	<b>3,584</b>	<b>64</b>	<b>3,208</b>	<b>60</b>	<b>1,683</b>	<b>15,373</b>

Table vi: Apprenticeship Programme Duration (Weeks)

Apprenticeship Name	Phase 2	Phase 4	Phase 6	Duration Years	NFQ Level
<b>Construction</b>					
Brick & Stone laying	20	10	10	4	6
Carpentry & Joinery	21	11	10	4	6
Painting & Decorating	20	10	10	4	6
Plastering	20	10	10	4	6
Plumbing	21	11	11	4	6
Stonecutting & Stonemasonry	20	10	10	4	6
Wood Manufacturing & Finishing	20	10	10	4	6
<b>Engineering</b>					
Farriery	20	10	10	4	6
Industrial Insulation	20	11	11	4	6
Industrial Electrical Engineering	-	-	-	2	7
Manufacturing Engineering	-	-	-	3	7
Manufacturing Technology	-	-	-	2	6
Mechanical Automation & Maintenance Fitting	20	11	11	4	6
Metal Fabrication	22	11	11	4	6
Original Equipment Manufacturing Engineering	-	-	-	3	4
Pipefitting	20	10	10	4	6
Polymer Processing Technology	-	-	-	3	7
Sheet Metal Work	20	11	11	4	6
Toolmaking	20	11	11	4	6
<b>Motor</b>					
Motor Mechanics	20	10	10	4	6
Vehicle Body Repair	20	10	10	4	6
Agricultural Mechanics	20	10	10	4	6
Construction Plant Fitting	20	10	10	4	6
Heavy Vehicle Mechanics	21	11	10	4	6
<b>Electrical</b>					
Aircraft Mechanics	32	8	35	4	6
Electrical	22	11	11	4	6
Electrical Instrumentation	20	20	20	4	6
Electronic Security Systems	20	10	10	4	6
Instrumentation	20	11	11	4	6
Refrigeration & Air Conditioning	20	10	10	4	6
<b>Finance</b>					
Accounting Technician	-	-	-	2	6
Insurance Practice	-	-	-	3	8
International Financial Services Associate	-	-	-	2	6
International Financial Services Specialist	-	-	-	2	8
<b>Hospitality</b>					
Commis Chef	-	-	-	2	6
Chef de Partie	-	-	-	4	7
Sous Chef	-	-	-	2	8
Butcher	-	-	-	2	5
<b>Biopharma</b>					
Laboratory Analyst	-	-	-	3	7
Laboratory Technician	-	-	-	2	6
<b>ICT</b>					
ICT Associate Network Engineer	-	-	-	2	6
ICT Associate Software Developer	-	-	-	2	6
Cybersecurity	-	-	-	2	6
<b>Logistics Associate</b>	-	-	-	2	6
<b>Auctioneering &amp; Property Services</b>	-	-	-	2	6

Table vii: Apprenticeship Programmes 2019

Craft Apprenticeships	New Apprenticeships
Agricultural Mechanics	Accounting Technician
Aircraft Mechanics	Auctioneering and Property Services
Brick and Stone laying	Butcher
Carpentry and Joinery	Chef de Partie
Construction Plant fitting	Commis Chef
Electrical	Cyber Security
Electrical Instrumentation	ICT Associate Professional Network Technician
Electronic Security Systems	ICT Associate Professional Software Developer
Farriery	Industrial Electrical Engineering
Heavy Vehicle mechanics	International Financial Services Associate
Industrial Insulation	International Financial Services Specialist
Instrumentation	Insurance Practice
Mechanical Automation and Maintenance Fitting	Laboratory Analyst
Metal Fabrication	Laboratory Technician
Motor Mechanics	Logistics Associate
Painting and Decorating	Manufacturing Technology
Pipefitting	Manufacturing Engineering
Plastering	OEM engineer
Plumbing	Polymer Processing Technology
Printing	Sheet Metalworking
Refrigeration and Air Conditioning	Sous Chef
Stonecutting and Stonemasonry	
Toolmaking	
Vehicle Body Repairs	
Wood manufacturing and Finishing	

Source: List of Apprenticeships, Generation Apprenticeships, May 2019