

Apprenticeship Review – Background Issues Paper

May 2013

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Introduction

1.1 Background

The Government's Action Plan for Jobs contained the following commitment regarding a review of apprenticeship:

“Initiate a review of the apprenticeship training model, including costs, duration and demand with a view to providing an updated model of training that delivers the necessary skilled workforce to service the needs of a rapidly changing economy and ensures appropriate balance between supply and demand.”

The first stage of the review process involves the preparation of this background issues paper which, inter alia, provides a factual description of the current system of apprenticeship, including the governance arrangements, trends and forecasts in relation to recruitment and identified strengths and weaknesses of the model and proposes a range of possible options for change.

The second phase of the review will involve consultation with relevant key stakeholders on the options for change.

A cost-benefit analysis of the current system and any proposals for change has also been considered. A final decision on the timing and extent of this exercise will need to await developments during the second stage of the review. Any such exercise would include analysis of resource capacity in FÁS¹, the Institutes of Technology and Colleges of Further Education, including staff, buildings, capital equipment and administrative systems, and trainee allowance funding. An assessment of the benefits of apprenticeship to employers and the economy will also be integral to this study. The OECD in their VET report recommends that Ireland should carry out such an analysis, to include assessing the impact of the payment of the allowance to apprentices while in training. Reference is made to similar studies that have been conducted in Switzerland and Germany.

1.2 Context of Review

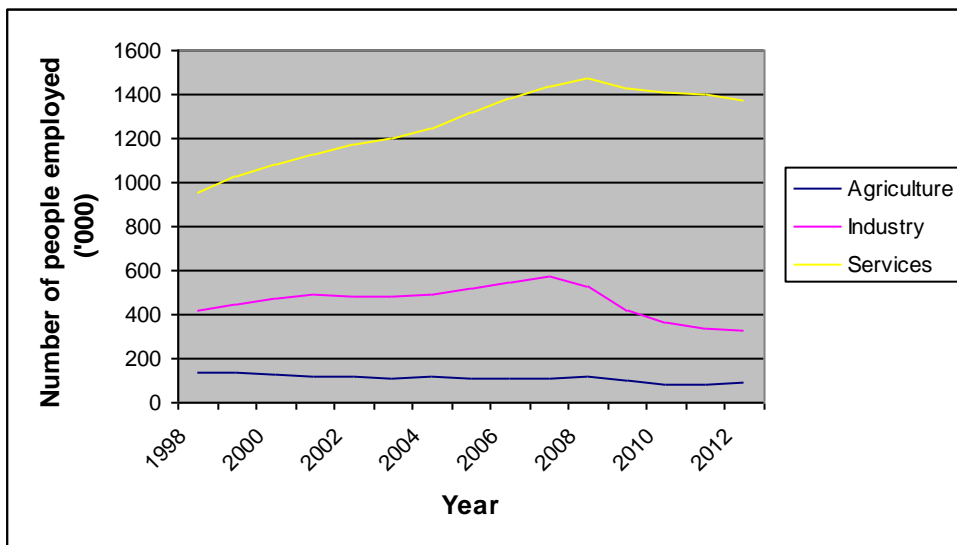
The current model of apprenticeship formation was developed in the 1980s and implemented in the early 1990s as Ireland emerged from the last recession. Since then, Ireland has been well served by a very high standard of apprenticeship training and education that has contributed greatly to the skills of our workforce. It is evident from Ireland's track record in the World Skills competitions that the current system compares favourably with the best internationally, and the quality of our apprenticeship training is therefore rightly recognised. The apprenticeship

¹ Over the course of this review it is envisaged that FAS Training Services will transfer to the Education and Training Boards (ETBs) as part of the ongoing reform associated with the establishment of SOLAS (See SOLAS Action Plan on www.education.ie). All references to FAS in this document should be seen in that context.

system has also provided benefits through the generation of revenue to the state through employment; increased productivity; as well as societal benefits.

However, over the course of that period, there have been fundamental changes in the structure of the economy and the nature of employment. For example, the chart below shows the changes in the number of people employed in the broad economic sectors between 1998 and 2012. The proportion of people employed in industry (including construction) fell from 28% to 18% between 1998 and 2012. Over the same period employment in services increased from 63% to 77% of total employment.

Trends in the numbers of people employed by broad economic sector 1998-2012²



The impact of the economic downturn has led to a collapse in demand for apprentices from employers, particularly in construction related trades. Significant numbers of apprentices have also been made redundant before completion of their training.³

While demand for a number of trades is not expected to recover to pre- recession levels, employment opportunities may emerge in other sectors of the economy not currently covered by the scheme.

The experience of managing the impact of the downturn has also brought into clearer focus some issues with the current model e.g. single award system means no qualifications for apprentices made redundant⁴, relatively high cost of delivering training, issues for FAS and Institutes of Technology in relation to staff and facilities.

² CSO QNHS Table 2a

³ It should be noted in this context, however, that various initiatives have been introduced by FAS with the support of the Department of Education & Skills to enable redundant apprentices to complete their apprenticeship, especially during this economic downturn. The Redundant Apprentice Placement Scheme is an example in this regard.

⁴ See Footnote 2 above

In addition, the Government decided to establish SOLAS, as the Further Education and Training Authority of Ireland, to fund and implement policy for further education and training. It has also been decided to rationalise the 33 Vocational Education Committees into 16 Education and Training Boards each of which will have responsibility for the delivery of further education and training in their region. This will involve the transfer of FÁS Training Services to the ETBs and create a new training and governance structure.

Apprenticeship and other work-based training play a key and valuable role within the broad spectrum of education and training provision funded by the Department. Following initiatives in the National Reform Programme and as part of developments arising from the EU2020 initiative, Ireland now has amongst the highest rates of third-level educational attendance in Europe and is achieving its targets in relation to second-level attendance rates as well. These achievements are key to the ongoing development of learning in Irish society. The ongoing reform of the Further Education and Training sector, including any changes to be made to the Irish apprenticeship structure, must ensure that a co-ordinated approach is taken to the future development of education in Ireland and that targets achieved in one area of education do not create difficulties in others.

The issue of apprenticeship is also currently being considered at EU level in the context of the relatively high level of youth unemployment in certain Member States. In particular, the Youth Opportunities Initiative, which is part of the EU's Youth On The Move education and employment initiative, sets out several measures, planned for 2012 and 2013, to drive down youth unemployment. Key actions in this initiative include assistance to increase new apprenticeship placements by the end of 2013, as well as the development of a youth guarantee – to help EU countries get young people into employment, further education or (re)training within a set period after leaving school. A European quality framework on traineeships is also being considered. Furthermore, the OECD Local Employment and Economic Development (LEED) Division are currently conducting a review on the coherence and value of policy implementation at a local level in Ireland in relation to Job Creation, Local Development Practice and Youth Unemployment Strategies. The issue of apprenticeship may be considered as part of that review.

Given all of the above, it is considered appropriate that a review of the apprenticeship structure in Ireland be undertaken at this time.

1.3 Objective of Review

To determine whether the current model of apprenticeship should be retained, adapted or replaced by an alternative model of vocational education and training for apprentices - taking into account the needs of learners, the needs of employers, the needs of the economy and the need for cost effectiveness into the future.

2 Current Apprenticeship Structure

2.1 Background

Apprenticeship is the recognised means by which people are trained to become craftspeople in certain designated trades in Ireland (see section 2.4). It is a programme which is driven by employer demand, aimed at developing the skills of the apprentice to meet the needs of industry and the labour market.

2.2 Legislation

Apprenticeship training in Ireland is regulated by legislation, with FÁS as the regulatory authority. The current FÁS apprenticeship model is founded on the AnCO legislation (The Industrial Training Act) enacted in 1967, as amended by the National Training Fund Act 2000 and the 1987 Labour Services Act and is based on the 1986 White Paper on Manpower Policy and the 1991 Programme for Economic and Social Progress (PESP Agreement).

2.3 Governance

2.3.1 Legislative Base

The 1987 Labour Services Act, encompassing the 1967 Industrial Training Act gave FÁS certain statutory functions in relation to apprenticeship training. In particular, among other functions, these Acts gave FÁS the functions of:

- a) Declaring an activity of industry to be a designated industrial activity
- b) Making rules regarding the employment of apprentices in such a designated industrial activity (the rules must be laid before the Oireachtas)
- c) Controlling and consenting to the employment of apprentices within any such designated industrial activity
- d) Keeping a register of those employed as apprentices
- e) Prescribing a fee to be paid by the registered apprentice to FÁS in respect of registration
- f) Determining and charging fees in respect of courses, facilities or services in relation to the training of persons.

Section 32 of the Industrial Services Training Act 1967 sets out the statutory basis for the education of apprentices. This section gave functions to FÁS to:

- g) Make arrangements for the provision of courses of instruction in the nature of technical education by a vocational education committee of a type which FÁS and the vocational education committee agree to be suitable for such apprentices.
- h) Require an apprentice to attend the whole or part of a course of instruction
- i) Require an employer to release the apprentice to attend such course

The Institutes of Technology were originally part of the VEC structure and became involved in apprentice education under Section 32. Colleges of Further Educations (CFEs) continue to be part of the VEC structure. Therefore both the institutes of technology and the CFEs are key actors in determining the suitability of the nature and type of instruction in agreement with FÁS.

In terms of the 1999 Qualifications, Education and Training Act FÁS is the “first named provider” and the institutes and CFEs are the “second named provider”.

2.3.2 Designation and Consultation Structures

FÁS has established a structure for designation of industry activities under the Act.

Designation

- a) The designation of an activity is a matter for the Board of FÁS
- b) The establishment of a new trade is a matter for the Board of FÁS
- c) FÁS has established the National Apprenticeship Advisory Committee (NAAC) to advise the Board on apprenticeship matters. This committee is representative of: DES, FÁS Board, FÁS Executive, HEA, Institutes of Technology, 2 Employer Representative Bodies (Construction and Motor Industry), 2 Craft Unions (Construction and Electrical-Mechanical).
- d) All recruitment data, proposal for new trades, curriculum and examination issues are placed before the NAAC for consultation and advice to the FÁS Board
- e) Designation of an activity of industry arises following identification of such a need. Normally this arises as a result of an approach from industry, or from a manpower planning research. A scoping study confirms or rejects the requirement and the focus of any such development. The scoping study is considered by the NAAC, which advises the FÁS Board.
- f) The NAAC establishes an expert working group, representative of the main stakeholders in any new trade, which develops guidelines for the new curriculum. A small group of experts, representing stakeholders develops the curriculum in accordance with these guidelines

Consultation

- g) FÁS consults on a continuous basis with employers associations and with craft unions
- h) FÁS and HEA have a formal meeting twice per annum and continuous ongoing discussions
- i) FÁS and the Institutes of Technology Apprenticeship Committee (representing Institutes and CFEs) meet at least twice per year

2.4 FÁS Apprenticeship Trades

FÁS currently has responsibility for promoting and overseeing the training and education of the apprentice trades given in the table below:

| FÁS Apprenticeship Trades | |
|----------------------------|---|
| Construction sector | Brick & Stonelaying |
| | Carpentry and Joinery |
| | Floor & Wall Tiling |
| | Painting & Decorating |
| | Plastering |
| | Plumbing |
| | Wood Manufacturing and Finishing |
| Electrical Sector | Electrical |
| | Electrical Instrumentation |
| | Instrumentation |
| | Refrigeration & Air Conditioning |
| | Aircraft Mechanics |
| | Electronic Security Systems |
| Motor Sector | Agricultural Mechanics |
| | Construction Plant Fitting |
| | Heavy Vehicle Mechanics |
| | Motor Mechanics |
| | Vehicle Body Repairs |
| Engineering Sector | Mechanical, Automation and Maintenance Fitting (MAMF) |
| | Metal Fabrication |
| | Sheet Metalwork |
| | Toolmaking |
| | Industrial Insulation |
| | Farriery |
| Printing Sector | Print Media |

2.5 Entry requirements

Prospective apprentices must be at least 16 years of age and have a minimum of 5 grade D's in their Junior Certificate or equivalent. Where individuals do not meet the minimum entry requirements they may be registered as apprentices by an employer if:-

- Completed successfully an approved pre-apprenticeship course
- Or**
- Be over 16 years of age and have at least 3 years work experience approved by FÁS
 - In certain trades individuals are required to pass a colour vision test as part of the entry requirements

2.6 Recruitment and rates of pay/allowances

FÁS approves the employer as competent to train apprentices, but does not limit or control recruitment numbers. Individual employers therefore control

recruitment to apprenticeship. Following notification by the employer to FÁS that recruitment has taken place, FÁS registers the recruit on the apprentice register.

The apprentice has a contract of employment with the employer during all phases, including while attending a training centre or a college. The apprentice is paid a wage established by negotiation between trades unions and employers while in the industry phases.

FÁS pays the apprentice a training allowance, and in certain circumstances travel or subsistence allowances also, while he/she is in the training centre or college. The value of this allowance is based on the net take home pay of the apprentice based on the gross wage norms in the industry sector. The Gross Wage Norms for the different trade sectors are given in the table below. The actual allowance received will generally be less as it is based on the net take home pay calculated based on the Gross Wage Norm⁵

Gross Wage Norms payable in industry for the different trade sectors

| Year | Engineering Industry Note 1 | Construction Industry Note 2 | Motor Industry Note 3 | Printing and Paper Industry (4 year cycle) Note 4 | Printing and Paper Industry (3 year cycle) Note 4 | Electrical Industry Note 1 |
|----------------------|--------------------------------|---------------------------------|--------------------------|---|---|----------------------------|
| Phase 2 | €197.47 | €223.47 | €195.25 | €143.68 | €323.63 | €242.58 |
| Phase 4 | €296.42 | €335.79 | €293.17 | €215.75 | €345.21 | €363.87 |
| Phase 6 | €439.51 | €503.49 | €439.75 | €323.61 | €388.36 | €525.72 |
| 4 th year | €531.49 | €604.11 | €527.70 | €388.36 | | €647.01 |

Note 1: Effective 1/4/2007

Note 2: Effective 4/2/2011

Note 3: Effective 1/5/2008

Note 4: Effective 1/11/2007

2.7 Training Phases

Apprenticeship is a blended alternance training programme, with part of the training delivered by employers and part by FÁS and the institutes of technology or colleges of further education. (This system is also known as a dual system, due to the alternating provision of training in both academic and commercial environments.) The structure involves each partner contributing designated segments of the training at specific times in the formation process. The essential requirements for most of the trades are that the apprentice completes 7 phases of training:

⁵ <http://www.fas.ie/en/Allowances+and+Grants/Apprentice+Wages.htm>

- Phases 1, 3, 5 and 7 are on the job training provided by the employer
- Phase 2 is provided by FÁS and other training providers
- Phases 4 and 6 are provided by the Education Sector in Institutes of Technology or Colleges of Further Education (CFEs).

The required duration of each of these phases is set out for the apprenticeship structure as follows (there are some exceptions for particular trades, but the vast majority follow the table below):

| Phase | Delivered by | Minimum Duration (Weeks) |
|-------|------------------|--------------------------|
| 1 | Employer | 12 |
| 2 | FÁS | 20 |
| 3 | Employer | 26 |
| 4 | Education Sector | 10 or 11 |
| 5 | Employer | 26 |
| 6 | Education Sector | 10 or 11 |
| 7 | Employer | 12 |

2.8 Curriculum, Assessment and Award

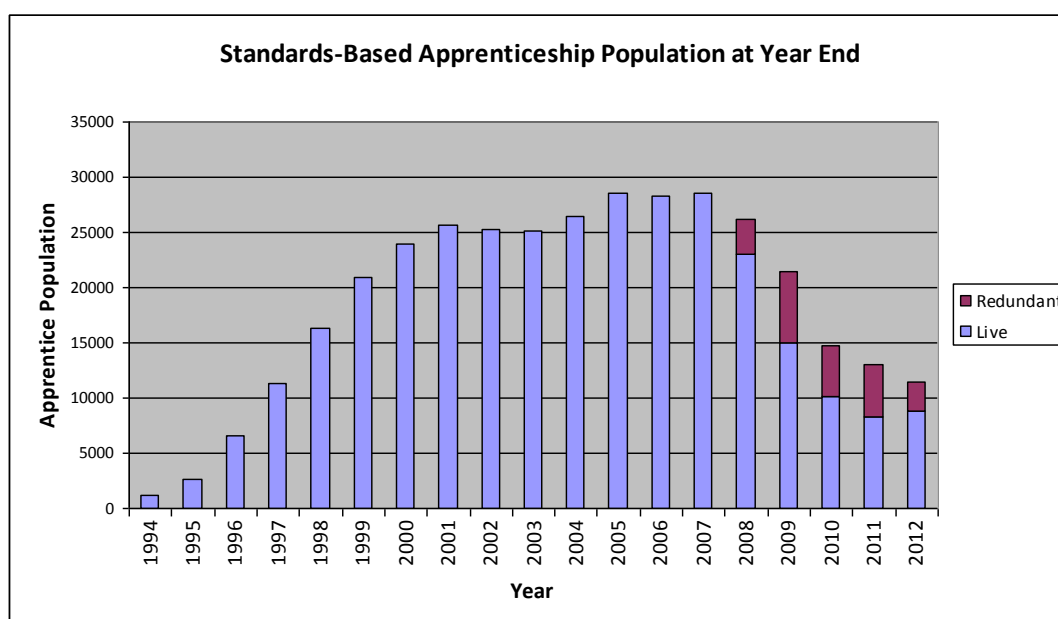
The training curriculum for apprentice trades is approved by the Board of FAS on the advice of the National Apprentice Advisory Committee (NAAC), which is representative of various stakeholders. The curriculum for all trades is currently validated by Quality and Qualifications Ireland (QQI) as an NFQ Level 6 Advanced Certificate - Craft. The philosophy, pattern and structure of assessment, both by the employer and within the off-the-job elements are determined by FAS, following consultation with the stakeholders. Modular assessments are provided for the off-the-job phases – 2, 4 and 6 – and apprentices complete competency based assessments for phases 5 and 7 with the employer during the on-the-job phases.

3 Apprenticeship Data - Numbers, Profile, Recruitment and Outcomes

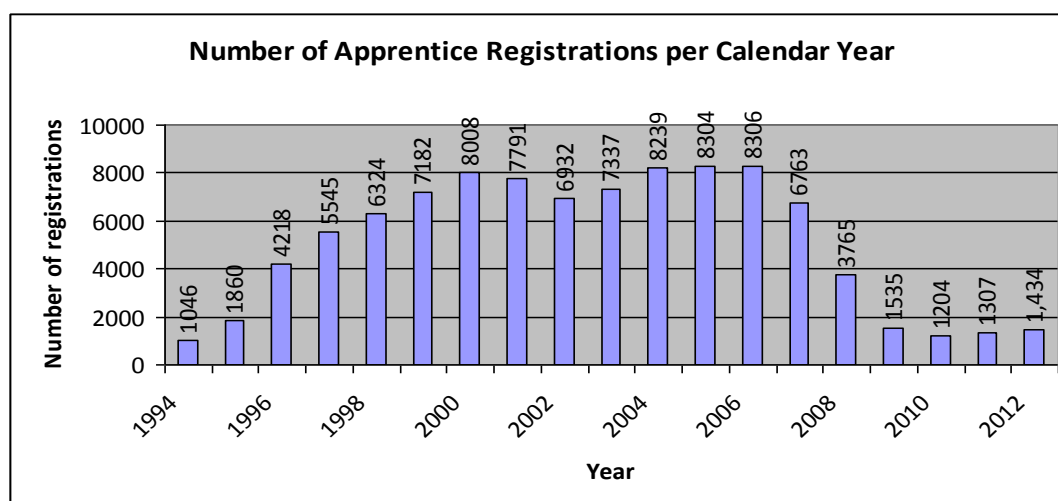
3.1 Apprentice Numbers

Total population

Apprentice recruitment varies with economic cycles. The total population on 31 December of each year is shown in the chart below (data on redundant apprentices is not available prior to 2008).



Annual Recruitment Patterns

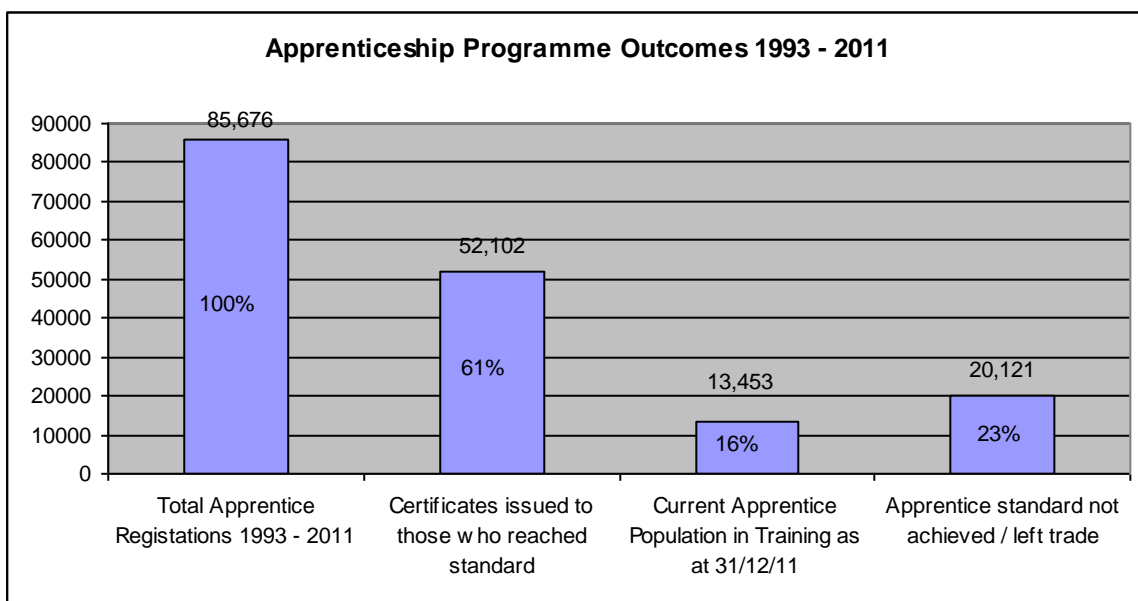


Growth in the construction industry up to 2007 increased the annual number of construction apprentice recruits to around 7,100 per annum from 2004 to 2006, with construction apprentices then forming around 85% of all recruitment. Following the collapse in the construction industry, apprentice recruitment in those trades has reduced to just over 700 recruits per annum, approximately 10% of their peak values. In addition to falling recruitment, significant numbers of apprentices have been made redundant before completion of their training.

Demand in non-construction trades, while variable, has not been subject to the same level of variation as construction trades.

3.2 Apprentice Outcomes

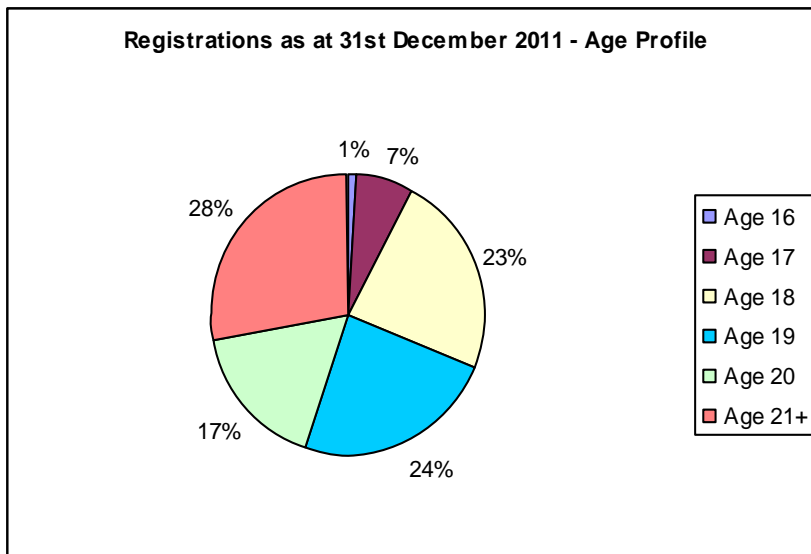
The chart below⁶ gives the outcomes for apprentices registered by employers between 1993 and 2011 who progressed beyond Phase 1 of their training i.e. attended some off-the-job training. As at end December 2011, 61% had been issued with craft certificates and a further 16% were continuing in training. 23% had not achieved the required standard or had left the trade.



⁶ This material was supplied in this format by FAS to the Department of Education and Skills

3.3 Apprentice Age Profile ⁷

More than 80% of apprentices registered by employers in 2011 were aged 18 or over. Almost 30% were more than 21 years of age.



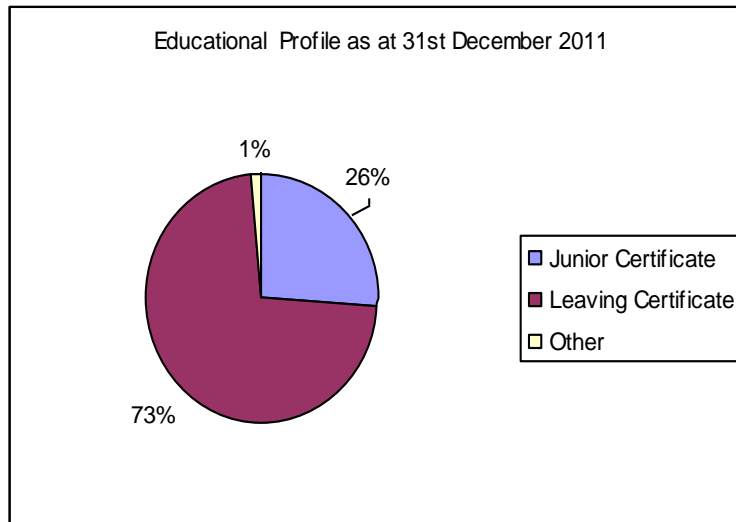
| Age | Registered as at 31/12/2011 | % Total |
|--------------|-----------------------------|-------------|
| 16 | 17 | 1 |
| 17 | 94 | 7 |
| 18 | 294 | 23 |
| 19 | 317 | 24 |
| 20 | 223 | 17 |
| 21+ | 362 | 28 |
| Total | 1,307 | 100% |

⁷ This material was supplied in this format by FAS to the Department of Education and Skills

3.4 Apprentice Educational Profile

73% of apprentices registered by employers in 2011 had a Leaving Certificate level qualification on entry to apprenticeship.

Apprentices registered in 2011



| Education Level | Registered as at 31/12/2011 | % Total |
|---------------------|-----------------------------|-------------|
| Junior Certificate | 340 | 26 |
| Leaving Certificate | 949 | 73 |
| Other | 19 | 1 |
| Total | 1,307 | 100% |

3.5 Recruitment Forecasts

In response to the dramatic decline in apprentice numbers and in order to plan for expected provision in FAS and the education sector, in 2009 the Department of Education and Skills and the Department of Jobs, Enterprise and Innovation (DJEI)⁸ established a Study Group in order to forecast, in so far as it is possible, expected levels of apprentice recruitment over the coming years. The Group has revised its forecast annually using the most up to date data. The most recent report was completed in November 2012, covering the period up to and including 2016.

While the 2012 report notes the difficulties in forecasting future apprentice intake levels, particularly for construction related trades, it provides a forecast of the probable level of apprentice intake for eight construction trades and for six non-construction trades under a number of scenarios for each year up to 2016. The 14 trades included in the forecasts represent 90% of total new apprentice registrations in 2011.

⁸In 2010, the relevant representatives of the DJEI (then known as the Department of Enterprise, Trade and Employment (DETE)) transferred to the DES following a Government decision regarding the transfer of certain functions between the respective Departments.

3.5.1 Construction related trades

The report presents four different forecasts of apprentice recruitment for the construction related trades in 2016 outlining the potential boundaries of future apprentice recruitment. The recruitment forecasts are based on two different forecasts of employment, to which two different historical recruitment ratios are applied – resulting in four forecast outcomes. While there is a significant difference in the projected level of recruitment between the different scenarios, all four forecasts are exceptionally low relative to their peak levels. Both 2007-2011 ratio scenarios are 84% below the peak level of recruitment and the forecasts for both 2011 ratio scenarios are 90% below the peak. The report advises that, while the choice of appropriate forecast is a matter of judgement, it would be unwise to base planning provision on the forecasts associated with the lowest apprentice intake to employment ratio to date (i.e. the 2011 ratio).

Construction-related trades – Apprentice intake forecasts for the 2007-2011 and 2011 ratio scenarios under both the baseline and alternative forecast of employment in 2016

| Trade | 2011 intake level | Peak year | Baseline forecast of employment in 2016 | | Alternative forecast of employment in 2016 | |
|----------------------------|-------------------|--------------|---|---------------------|--|---------------------|
| | | | 2007-2011 ratio scenario | 2011 ratio scenario | 2007-2011 ratio scenario | 2011 ratio scenario |
| Electrician | 355 | 2,269 | 590 | 355 | 620 | 375 |
| Carpenter/joiner | 72 | 2,124 | 225 | 90 | 245 | 95 |
| Plumber | 146 | 1,500 | 225 | 130 | 245 | 140 |
| Bricklayer | 11 | 679 | 30 | 15 | 30 | 20 |
| Plasterer | 5 | 310 | 20 | 5 | 20 | 10 |
| Painter/decorator | 18 | 161 | 25 | 20 | 25 | 20 |
| Wood manufacturer/finisher | 12 | 340 | 50 | 15 | 50 | 15 |
| Construction plant fitter | 32 | 114 | 30 | 35 | 30 | 40 |
| Total | 651 | 7,497 | 1,195 | 665 | 1,265 | 715 |

3.5.2 Non-construction related trades

The report presents two forecasts of apprentice recruitment for the non-construction trades. There is no significant variation in the overall projected levels of apprentice recruitment in 2016 between the two scenarios and both projections are equivalent to a 60% reduction on the peak level.

Non-construction-related trades – Apprentice intake forecasts for the 2007-2011 & 2011 ratio scenarios in 2016

| | | | 2007-2011 ratio scenario | 2011 ratio scenario |
|------------------------------------|-------------------------|--------------|-----------------------------|------------------------|
| Trade | 2011in take level | Peak year | 2016forecast | 2016forecast |
| Fitter | 101 | 403 | 110 | 125 |
| Toolmaker | 42 | 150 | 25 | 50 |
| Vehicle body repairer | 32 | 140 | 55 | 30 |
| Mechanic (heavy vehicle and motor) | 280 | 688 | 370 | 320 |
| Refrigeration craftsman | 29 | 117 | 50 | 65 |
| Aircraft mechanic | 35 | 84 | 35 | 40 |
| Total | 519 | 1,582 | 645 | 630 |

Note: forecast figures have been rounded to the nearest 5 and may not sum to the total figures due to rounding.

Overall the report suggests that there is evidence to indicate that the level of unemployment has, at the very least, stabilised and that, in the context of planning for the future training provision of apprentices, it may be advisable to plan on the basis of the most optimistic forecast presented for each trade. However, it should be noted that even taking the most optimistic forecast for each trade, overall apprentice recruitment in 2016 for both construction and non-construction related trades is forecast to be just 22% of peak recruitment.

4 Impact of Reduced Numbers on Training System

4.1 Reduction in Provision

The dramatic fall off in apprentice recruitment has led to a corresponding decrease in the number of apprentices requiring education and training in FAS training centres and educational institutions.

The reduced demand was first felt in the FAS training centres and FAS had to react rapidly to the reducing numbers by reducing and redeploying staff and facilities.

Reduced demand in the education sector followed (a time lag is caused by apprentices still in progress through the phases) and, in 2010, the HEA initiated a process of planned reduction in provision in the education sector. This process of rationalisation and reduction is continuing in line with updated forecasts.

4.2 Excess Capacity in System

4.2.1 FÁS Centres

While there remains some capacity in certain FAS training centres for the provision of phase 2 apprenticeship training; a good deal of reallocation of staff and remodelling of facilities has already taken place, arising from the changing economic climate and the consequent reduced recruitment forecast for apprentices. Where possible, facilities which are not required for apprenticeship training are currently used for other adult training requirements and instructors have been redeployed. In building up the capacity to meet demand over the period of high-economic growth, FAS acquired premises on a rental basis and employed staff on temporary fixed-term contracts. This also added to flexibility when that demand subsequently lessened.

4.2.2 Education Sector

The HEA has projected the number of blocks⁹ that are required in institutes of technology and colleges of further education in 2017 to cater for the forecast apprentice intake in 2015. The HEA estimates that total provision to meet FÁS scheduling requirements for 2016-2017 academic year will be 192 blocks (3072 places), compared to 734 blocks (11,744 places) delivered in 2008¹⁰.

It is estimated that in excess of 3 lecturers are required to deliver each 6 annual blocks. Additional technical/support staff and administrative staff are also required

⁹ A block is a capacity count used to measure capacity in the institutes and usually refers to provision of training to a group of 16 apprentices for 1 term.

¹⁰ In 2008, 22 of these blocks were delivered by flexible contracts which were terminated as numbers fell leaving a core 2008 provision by the education sector of 712 blocks

to deliver apprenticeship training. Therefore a reduction from 712 core blocks in the financial year 2008 to 192 annual blocks in 2017 represents a minimum displacement of 260 teaching staff plus ancillary support staff from the teaching of apprentices.

In building up capacity during the boom, institutions invested heavily in the physical infrastructure required to deliver training. While some of this infrastructure is shared with higher education programmes and can be redeployed further to this usage, some is now surplus to apprentice training requirements and will remain so for the foreseeable future.

The normal cycling of the construction industry thus creates a planning and staffing problem, as the state attempts to anticipate these cycles in industrial demand by increasing or decreasing staffing to match demand.

5 Current Costs of Apprenticeship Provision

The State's element of the costs of the current apprenticeship system is funded through a combination of Exchequer funding and payments from the National Training Fund (NTF). The NTF is resourced by a levy on employers.¹¹

The Department of Education and Skills funds FÁS, as the statutory regulatory body for apprenticeship, on that basis.

Apprentice education and training in the IoTs and CFEs is funded by the Exchequer. The CFEs are funded directly by the Department of Education and Skills. The IoTs are funded through the HEA on the basis of the number of blocks delivered.

The following paragraphs set out the overall costs of the current apprenticeship system.

5.1 State Costs

The State is liable for the following expenditure on the off-the-job phases of apprenticeship provision:

5.1.1 FÁS Costs

- FÁS is responsible for programme development costs, costs of liaison with employers, programme coordination costs, examination costs, scheduling of apprentices and maintenance of records of progress.
- FÁS is responsible for payments of training allowances and subsistence to apprentices, while the apprentice attends a FÁS centre or an educational institution.
- FÁS is responsible for the costs of provision of Phase 2 training (20 weeks) in FÁS training centres.
- FÁS funds payment of the student charge to Institutes (apprentices pay an examination fee only).

¹¹ The National Training Fund (NTF) was established under the National Training Fund Act 2000 as a dedicated fund to finance a range of schemes aimed at (i) raising the skills of those in employment (ii) providing training to those who wish to acquire skills for the purposes of taking up employment and (iii) providing information in relation to existing, or likely future, skills requirements in the economy.

5.1.2 Education Sector Costs

- The HEA is responsible for the costs of provision of Phases 4 and 6 in institutes of technology.
- The DES is responsible for the costs of provision in the two CFE colleges. Apprentice teachers' salaries are also met by the DES.

5.2 Annual Expenditure

An estimate of State expenditure on the off-the-job apprenticeship phases is contained in the table below. The 2008 data represents a time when there was relative stability in the system, while the 2011 costs are the most recent available.

Apprenticeship Costs ¹²

| | 2008 Costs | 2011 Costs |
|--|-----------------|------------------|
| Fás costs including overheads but excluding student charge and apprentice allowances ¹³ | €60.09 m | €13.376 m |
| Education Sector costs ¹⁴ | €57.16 m | €35.716 (e) m ** |
| Student Charge paid by FAS*** | €2.13 m | €2.308 m |
| Total Delivery Costs | €119.38m | €51.400 m |
| Apprentice Training Allowances | €105.58m | €36.404m |
| Total Programme Costs | €224.96m | €87.804m |
| Income * | €0.83m | €0.900 (e) m*** |
| Net Costs to State of Programme | €224.13m | €86.904m |
| Apprentice Throughput (graduates from phases 2, 4 and 6.) | 18,237 | 7,418 |
| Cost per apprentice per calendar year | €12,290 | €11,715 |

* Assumption is that the income is the examination fee paid by apprentices to the Institutes of Technology.

** (e) = estimate phase delivery cost for Phase 4 and Phase 6.

*** Increases in student fees, over the 3 year period, account for the relative stability of student charges and income despite reduced numbers.

¹² Data supplied by FAS to DES September 2012. Apprenticeship expenditure does not include costs associated with Phase 7 Equivalent, Competency Determination Mechanism or Refresher Courses at a cost of €601,000.

¹³ FAS costs includes FAS pay and the apportionment of overhead costs for central and regional management and administration of the Apprenticeship Programme

¹⁴ The HEA estimated costs are based on unit costs returns by IoTs for the financial period 1st Sep 2009-1st August 2010. This data is then extended on a pro-rata basis to the Calendar year 2011, based on the number of blocks delivered in each corresponding period. The data is also extended on a pro-rata basis to provision in the two Colleges of Further Education involved. Therefore, no account is taken of any changes in base costs in the period since 2009-10 (nor of any difference in costs between IoTs and CFEs). The total estimate HEA costs is €35.716m for 6,800 available places of which 6,243 places were utilised based on acceptance in 2011.

5.3 International Comparison of Costs per Apprentice

The following table details the total State costs for provision of apprenticeship training across a number of countries in Europe and beyond. It is based on a report from the OECD prepared in 2008, which is the most recently available international comparison in this regard. The figures represent the total cost per apprentice over the course of their training. The figure for Ireland was derived from an analysis of the costs supplied to the OECD Review and from certified attendances of apprentices in the education sector during 2008.

| Comparison of Costs with other OECD countries | | |
|---|------------------------------------|--------------------------------------|
| Country / Data Source | Cost per participant (US\$ at PPP) | Cost (US\$) per full time equivalent |
| Ireland (as described above) ¹⁵ | \$29,900 | |
| | | |
| OECD Report | | |
| Austria | \$15,300 – 15,900 | N/A |
| Denmark | \$19,400 – 29,000 | 12,101 |
| Netherlands | \$7,100 – 14,100 | 7,841 |
| Norway | \$36,216 | 12,912 |
| Switzerland | \$11,614 – 23,628 | 14,297 |

This table demonstrates that Irish State apprenticeship costs per participant are very high when compared to equivalent costs in most other EU countries and beyond. However caution is needed in interpretation of these comparisons. For example Ireland has a small number of trades, all concentrated in technological fields compared to the 200-350 apprenticeship specialisations available in some countries, many of which are in non-technological fields, such as legal assistant, travel agent assistant etc. Non-technological trades, by their nature, have lower costs thus reducing averages. In addition, the full time equivalent calculation is not easily equated across national boundaries¹⁶. The OECD review refers to the further complication that tax benefits may accrue to training companies in some countries and the cost of such benefits are not included in the OECD country costs.

One major difference with much of Europe is the value of the training allowance paid to apprentices, which is based on industrial wage agreements. In many other

¹⁵ OECD costs are shown in US\$ using a purchasing power parity (PPP) type of currency exchange rate. The costs calculated by the OECD for Ireland were based on incorrect interpretation of data supplied by Ireland. The resulting difference between the OECD estimation and the Irish cost estimation above is too great to include the cost calculated by the OECD for Ireland in this table. The figure of US\$ 29,900 is calculated from the figures in the Apprenticeship Costs table above, using the same PPP factor as the OECD used.

¹⁶ For example, an Irish apprentice receives 40 weeks state training. – is the FTE year 30 weeks (normal HE duration), 33.4 weeks (Irish 2nd level) or 40 weeks (some foreign jurisdictions). The shorter the duration of the comparison base, the greater the reduction in FTE costs. A further complexity relates to the number of class contact hours per week – should the 35 hours apprentice training be compared to 2nd level hours of around 29 hours per week i.e. should the FTE equivalent cost be calculated by reducing actual costs in a 29/35 proportion.

countries apprentice allowances are based on education sector supports, which are generally lower than industrial wages.

For example all Irish apprentice motor mechanics, without means test, will each receive a total of €6,679 in State training allowances for the 30 weeks of Phases 2 and 4 and a further €3,799 for the 10 weeks of Phase 6 (as calculated on a net basis).¹⁷ A higher education engineering student, who qualifies, by means test, for the maximum non-adjacent student grant, will receive a total of €1,040 for 12 weeks from Jan/Dec 2011 and €2,353 for a further 28 weeks. Therefore for the same period of attendance the apprentice would receive €10,478 in State aid compared to the €3,393 received by the means tested student grant and compared to no allowance received by those not qualified under the means test. [It should be noted, however, that the apprentice also makes a contribution, by way of tax and PRSI, to the State during the balance of the four year (168 week) apprenticeship.]

A further comparison would be with the basic training allowance paid to FAS trainees, which is €188 per week for eligible trainees aged over 18. On that basis, at that rate, approximately €7,520 would be paid in respect of 40 weeks training. (Travel and accommodation/meal allowances may also be payable to FAS trainees but are disregarded for the purpose of this example.)

5.4 Estimated Employer Wage Costs

The costs above focus on State costs¹⁸ only and exclude the cost of training to the employer. The apprentice attends off-the-job phases for about 40 weeks in total.

¹⁷ Training allowances for apprentices are calculated with reference to gross wage norms payable in industry for the different trade sectors. The actual allowance received will generally be less as it is based on the net take home pay calculated based on the Gross Wage Norm. The net figure is used in the example.

¹⁸ The National Training Fund Act, 2000 provides for the imposition of a levy on employers in respect of certain employees to be used to give skills or to raise skills amongst those in, or seeking employment. The levy on employers is 0.7% of reckonable earnings in respect of employees in Class A and Class H employments. The National Training Fund Levy is collected as part of the PRSI

In a 4 year apprenticeship he/she is paid by the employer for 168 weeks. Based on FÁS trainee allowances, which are themselves based on apprentice wage rate agreements in 2007-08, employer total wage costs per apprentice for the 4 years can be estimated approximately as per table below. This table shows apprentice wage related costs only and does not include any employer training provision costs, which are additional. Employers (and the State) also gain of course from the productivity and contribution of the apprentice to the business.

| Trade | Construction | Electrical | Engineering | Motor |
|---|--------------|------------|-------------|---------|
| Wage Related Cost of Training an apprentice for 4 years | €88,700 | €87,600 | €71,870 | €71,435 |

collection system. This was reduced in 2011 to 0.35% for certain employees as part of the Government's Jobs Initiative.

In 2011 a total of €316m was paid into the Fund by employers and the total expenditure for that year was €326.269m. FAS received €54.236m in respect of training for those in employment, including the apprenticeship programme.

The cost of the apprenticeship programme funded by the NTF in 2011 was in the region of €52m.

6 Strengths and Challenges with the current model

In order to aid the analysis of potential options for change, the following fundamental strengths and weaknesses of the current apprenticeship model can be considered:

Strengths:

- a) The Irish dual system of apprentice training is of high quality and the available studies show high levels of satisfaction with the programme from both learners¹⁹ and employers²⁰.
- b) The contribution of craftspersons to economic stability and growth is substantial in that they underpin much of energy provision, infrastructure development, manufacturing industry, the high technology sector, transport and construction.
- c) While individuals do enter apprenticeship as a career choice, apprentice training also provides a pathway for retention of some young people in formal training, who would otherwise drop out unqualified. It provides a practical and attractive alternative route to higher education. It therefore provides an attractive and highly regarded pathway to career focussed qualifications for students who do not complete Leaving Cert or who complete the Leaving Cert and do not wish to enter higher education immediately.
- d) Apprentice training gives confidence to young people who are enabled to contribute to their family income while expanding their knowledge and maturing through their participation in adult society.
- e) It is a structured model which provides a systematic blend of on and off the job training.
- f) There has been a strong social partnership engagement in governance structures.
- g) There has been a very significant employer input to design of training and workplace assessment, which has resulted in significant support for apprenticeship in the industries to which it applies.

Challenges:

- a) While there are significant benefits to apprenticeship, state and employer costs arising from provision of this training are high relative to other Irish

¹⁹ Follow Up Survey of apprentice recruits of 1999, SLMRU, 2006/7, FÁS

²⁰ Survey of Employers' Usage of FÁS Services – 2007, S Conway & R Fox, July 2007, FÁS

education/training.²¹ While comparisons can be problematic, State costs are also high when compared to similar apprentice formation programmes internationally.

- b) Because of the demand led nature of the scheme, recruitment decisions by thousands of individual employers create uncontrolled downstream State expenditure obligations and/or overprovision as the economy cycles.
- c) The impact of the economic downturn has made thousands of apprentices redundant in mid-programme without the necessary employment to complete the programme and without any formal certification or award that recognises the training already completed. (While significant efforts have been made to address this issue through initiatives such as the Redundant Apprentice Placement Scheme and the development of Competency Determination mechanisms to test existing skills and knowledge against occupational standards, this issue remains a challenge.)
- d) The fixed legislative structure and organisation of the current model make it difficult to adapt to developments in the economy or technology as they arise.
- e) The current model is limited to a narrow set of occupations, with volume recruitment primarily construction based, and demand has fallen by over 85% in this sector due to the current economic climate.
- f) There is a fixed duration, and fixed award level regardless of the learning outcomes and skill level required for particular trades. This may create inefficiencies and may not maximise resources.
- g) There is a question over the extent to which the current model provides for a sufficient balance within the curriculum of literacy and numeracy, along with other transferable skills, which are not specific to the trade(s) in question.

²¹ <http://www.forfas.ie/media/100319forfas-labour-market-review-report.pdf>

7 Issues for Consideration

The strengths and weaknesses outlined above highlight the following issues for consideration in identifying options for change:

7.1 Governance

Several State organisations and thousands of employers are directly involved in providing apprentice training. The independent actions of any stakeholder impact on the other stakeholders. The complex nature of consultation, decision making and development makes quickly responding to industry or learning requirements more difficult. Consideration should be given to the desirability of a more coordinated governance process or to the possibility of the programme being delivered outside of a statutory framework.

7.2 Funding

State expenditure on the apprenticeship programme is significant and, while direct comparisons can be problematic, analysis indicates that it is high compared to other Irish education and training programmes as well as when compared to similar apprentice formation programmes internationally. Consideration should be given to whether some of the State training costs should be transferred to industry or the individual apprentices, recognising the benefits they receive from the training programme.

7.3 Recruitment

The variation in demand, driven by industry, is evident from the recruitment data detailed above. It is near to impossible for the State to stabilise State provision based on a free market industrial demand model. Mechanisms to create better demand and provision smoothing therefore need to be considered. If demand led training is to continue, then alternative pathways where the State provision is de-coupled or partially de-coupled from recruitment numbers could be considered, perhaps by employers taking responsibility for training delivery.

7.4 Providers and Delivery Methods

Currently, there are four providers of training involved in apprenticeship formation in Ireland: employers, FAS, IoTs and CFEs. Consideration needs to be given to the range of providers involved with a focus on which phases should be delivered by which provider. For example, should all off the job phases be delivered by one provider (FAS, CFE, or IoTs) or should the provider vary depending on trade?

It should also be noted that the pending establishment of SOLAS, as the Further Education and Training Authority in Ireland, will involve the incorporation of the existing training provision elements of FAS and the current Vocational Education Committee (VEC) structure into 16 Local Education and Training Boards (ETBs). It is

envisaged that these ETBs will be best placed to oversee and administer training at a local level, with national policies being overseen by SOLAS. The implications of these changes will need to be taken into account in the consideration of how apprenticeship training can be provided into the future.

Consideration could be given to the possibility of providing some elements of the off-the-job phases of the programme by Web-based electronic distance education. This would have the advantage of continuing the theoretical aspects of the course during the on-the-job periods, would enable increased theoretical learning outcomes, while at the same time could reduce the duration of the off-the-job periods.

Consideration should also be given to the balance of education and training between the state and employers with a particular emphasis on the nature of the skills developed in the off-the-job phases. An increase in the proportion of practical training delivered in on-the-job phases would increase capacity for the teaching of core skills such as literacy, numeracy, science and ICT skills in the education phases. It would also be expected to result in substantial cost reductions for the state sector, on the basis that employers would take on more costs associated with practical training. Any such consideration should take into account that the purpose of off-the-job training in practical skills is to ensure that a national approach is adopted and national standards are achieved through the modular assessment process.

Other issues for consideration include whether state training should be on a block or day release basis or whether some provision could be via distance or blended learning. The issue of flexibility of delivery in the education and training centres should also be reviewed (e.g. delivery outside of the standard academic year).

7.5 Curriculum and Award

The issue of curriculum content could also be considered in the context of the review. There may be an opportunity to enhance the broader education element of apprenticeship and the balance between literacy, numeracy, ICT, business methods and technological competence as well as the role of civics or other subjects could be addressed in this context.

The apprentice training programme has been placed on a legacy basis on NFQ Level 6 with elements at Level 7 i.e. post secondary and higher education level. Most other countries rank their apprentice training programme at the level of upper secondary education (NFQ Levels 4, 5 and 6).

A further factor which will need consideration is that the current apprenticeship award is a single major award, without any component minor awards. Deconstruction into a set of minor awards would require a major change for apprenticeship curricula. It would also raise issues of the competence of partially qualified persons to practice a trade.

7.6 Duration

The duration of 25 of the FÁS trades is fixed at 4 years; Print Media is the only exception at 3 years duration. Elsewhere in Europe the duration is matched to the learning outcomes required and the prior learning of the entrant. This is highlighted in the OECD Report: Learning for Jobs: OECD Reviews of Vocational Education and Training-Ireland²². The Forfás Review of Labour Market Programmes, February 2010²³ also found that the length of apprenticeship formation could be examined and that, if it could be based on attainment of the competency level, individuals could complete their training faster.

Consideration should be given to varying the length of apprenticeship based on learning outcomes determined by the trade standards and on the prior learning of the applicant.

7.7 Range of Occupations

FAS designated trades are essentially limited to the construction, engineering, motor, electrical and printing technical occupations. The number and range of apprenticeship occupations is much lower in Ireland than is common within Europe. The primary reason for this is that in most other countries apprenticeship covers a much broader range of activities (e.g. retail, financial services and health care occupations). The OECD report, previously cited, recommended that consideration be given to increasing the range of trades in Ireland.

A further factor for consideration is that in Ireland the apprenticeship trades are traditionally 'male' occupations and the participation of women in apprenticeship is negligible²⁴. The OECD Review noted that while Ireland is not unusual in the concentration of males in the traditional manual trades, it is unusual in having a relatively generously funded apprenticeship scheme whose beneficiaries are almost entirely male. It recommended that broadening the schemes with workplace training would help to remedy gender imbalance.

The range of actual occupations in the Irish economy is much closer to continental practice and these occupations are filled by graduates of other education and training programmes (e.g. Leaving Cert, PLC, Higher Certificates, FAS training). Any proposal for expansion of the range of trades would need to consider the role of, and impact on, existing VET pathways. The costs – for both employers and the State – in any expansion which might mirror the breadth and level of integration of apprentice schemes in other EU countries, such as Germany, would also have to be taken into account. The model in Germany, in fact, is based upon an historically

²² <http://www.oecd.org/dataoecd/2/6/44592419.pdf>

²³ <http://www.forfas.ie/media/100319forfas-labour-market-review-report.pdf> -pp209

²⁴ In 2004 less than 0.5% of registered apprentices in the first phase of apprenticeship were women. Conversely, in 2003/2004 women accounted for 72% of participants in Post Leaving Certificate courses, which cover many traditionally 'female' occupations such as hairdressers and beauticians (Watson, McCoy and Gorby, 2006)

<http://www.esri.ie/UserFiles/publications/20060906110550/BKMNINT189.pdf>

²⁴

long and committed involvement of employers (and others), in a detailed way, with all aspects of the apprentice system, and across a much wider spectrum of occupations involving a proportion of education/training population considerably greater than in the case of Ireland.

Consideration could be given to a review of the legislation and structures governing the designation of trades to facilitate more rapid and agile development of appropriate awards.

7.8 Alternative Pathway to Education and Training

Apprenticeship forms an attractive route for continued education and training for those who might otherwise leave education without attaining any vocational or academic qualification higher than statutory minimum school leaving age. The rigor and applied nature of the curriculum maintain and develop learning habits and culture, both within the workplace and in college.

The role of the current apprenticeship model in promoting equity of access to education and training should be given careful consideration in any alternative model proposed.

8 Other Irish and International Work-based Training Models

This section sets out briefly a number of alternative work-based training models currently in operation in Ireland.

8.1 Ireland

8.1.1 FAS Traineeship Programme

The FÁS National Traineeship Programme is an occupational skills development programme which combines formal training with FÁS and workplace coaching with an employer. The training content and occupational standards for traineeships are developed in consultation with employers, trade union, regulatory bodies and interest groups. The programme is aimed at clients who will enter occupations that entail significant skills requirements which are best acquired through a combination of alternating periods of on and off the job training. Traineeships are aimed at new labour market entrants and unemployed persons. The minimum age for participation on a traineeship programme is the statutory school leaving age of 16 years.

FÁS traineeships are developed to meet the employment and skills requirements of Irish industry and local businesses, through the provision of relevant training and industry recognised qualifications. Currently the traineeship programme covers employment in the following sectors: Technical and Operative; Personal Service; Administration and Business; Agri-Business; Information Technology; Sales; and, Leisure and Sport.

A key characteristic of the Traineeship Programme is the role employers play in the training process. The benefits for employers and trainees include improving productivity and access to potential employment opportunities respectively.

Including the on-the-job training element, traineeship programmes ordinarily range from 15 to 59 weeks. On successful completion of a FAS traineeship, all graduates will receive a FETAC Award at either Certificate or Advanced Certificate level.

There were approximately 4,900 participants in the FAS traineeship programme in 2012. A FAS training allowance is payable to participants for the duration of the programme.

8.1.2 Skillnets

Skillnets is a private company that funds and facilitates enterprise-led training, upskilling and networking for the labour force (employed and unemployed) under its Training Networks Programme (TNP). Skillnets networks arrange relevant training courses for member companies who operate on both a regional and sector-specific basis.

Skillnets networks are formed by a group of companies that come together to carry out cross-organisational training related activities which may not be possible on their own. Companies jointly address their training needs, collaborate with other enterprises, and engage experts, trainers, certifying bodies, industry bodies and others to work with them to achieve their goals.

Direct management and delivery of the TNP is provided by Skillnets Ltd, a private company limited by guarantee with funding provided to the company by the Department of Education & Skills for the administration of the TNP. Public funds (€14.5 million in 2012, through the National Training Fund (NTF)) are matched by private funding on a matched basis from member companies of networks.

Member companies operate in a wide range of industries including agriculture, design, technology, construction, food & drink, hospitality, manufacturing, space, radio, renewable energy, responsible tourism, restaurants and childcare amongst others.

As well as providing training for those in employment, in recent years Skillnets programmes have also been designed to provide relevant training for the unemployed through initiatives such as the Job-Seekers Support Programme (JSSP). These programmes provide skills which are in demand by industry, combined with direct access to employers and the workplace. The initiative is aimed at the unemployed and it blends training with work placements and access to employment. Approximately 40,000 people received training from Skillnets in 2012, up to 8,000 of whom were unemployed.

8.1.3 PLC model

The Post-Leaving Certificate (PLC) programme is a full-time programme run on an academic year basis for students who have completed their Leaving Certificate and for adults returning to education. PLC courses combine elements of practical work, academic work and work experience.

PLC Courses are provided predominantly in the Vocational Educational Committee (VEC) sector, but some Community and Comprehensive schools and Secondary schools also offer courses. (As described previously, the VEC structure is to be amalgamated into the proposed Education Training Board structure upon the establishment of SOLAS in due course.)

Programmes are delivered in a wide range of disciplines, such as business studies, childcare, community care, computing and technology, e-commerce, horticulture, multimedia production, sport and leisure, and tourism. All courses must lead to an appropriate major award at FETAC Level 5 or 6 or equivalent. They are designed to be closely linked to industry and its requirements. As a result, relevant work-based experience is an integral component of all PLC courses.

Learners who satisfy the terms of the student support schemes are eligible to receive maintenance grants. Recipients of some Social Protection payments, who

wish to undertake a PLC course, may be eligible to receive the Back to Education Allowance (BTEA). There are no tuition fees for PLC courses however, Budget 2011 provided for the introduction of a €200 annual PLC programme participant contribution.

PLC enrolments in 2012 were 36,600 and a similar enrolment is expected in the next academic year.

8.2 International: Brief outline of the structure of apprenticeship systems in three sample EU countries²⁵ and Switzerland²⁶

This section sets out briefly a number of alternative structures of apprenticeship in Germany, Finland, Norway and Switzerland for comparative purposes. The table below compares the systems in each country (as well as Ireland) across 5 key headings. This information is expanded upon in sections 8.2.1, 8.2.2, 8.2.3 and 8.2.4.

| | Germany | Finland | Norway | Switzerland | Ireland |
|-----------------------------|--|--|---|--|---|
| Level of Training | Vocational School | Upper Secondary Level | Upper Secondary Level | Upper Secondary Level | NFQ level 6 (Further Ed./Higher Ed) |
| Duration of Training | 3 years on average | 3 years (plus options for further and specialised training.) | 4 years | Between 2 and 4 years | 4 years |
| Format of Training | Min. ½ day per week education in Vocational School; balance with employer. | 70%-80% of time training in workplace; balance in education in vocational institutions | 2 + 2 Model: 2 years in school followed by 2 years in enterprise. | Typically takes place at 3 locations: Vocational School; Enterprise; and Industry Training Centre. Attendance pattern changes. | Phases 1,3,5 & 7 are on-the-job training with employer. Phase 2 with FAS. Phases 4 & 6 in Education sector (IOTs or CFEs) |

²⁵ Presentation by German representatives to the NAAC – September 2011; REFERNET VET report on Finland (2010); City of Helsinki – Education Department; Statistics Norway 2005; OECD Reviews VET Norway 2008; REFERNET VET report on Norway (2010); London School of Economics and Political Science – “The State of Apprenticeship 2010”.

²⁶ Learning for Jobs, OECD Reviews of Vocational Education and Training, Switzerland

| | | | | | |
|---------------------------------|--|--|---|--|---|
| Funding Provision | Govt. funding of schools; Enterprise funding of apprenticeship pay/ cost of trainers/ materials etc. | All training costs funded by Govt.; Enterprise pays apprentice wage. | All training costs funded by Govt.; Enterprise pays apprentice wage. | VET funding is shared between public and private sources. Enterprise pays apprentice wage. | Funding from Exchequer and NTF (Employer levies). Enterprise pays apprentice wage. State pays off-the-job allowance |
| Apprentice Payment Rates | Salary which increases each year. On average a third of skilled worker's starting wage. | Salary is approx. 80% of skilled worker's wages in relevant sector. | Salary increases from 30% to 80% of skilled worker's salary during 2 year apprenticeship. | Apprentice wages are set through collective bargaining at company level. | Wages are set through negotiation between unions and employers in industry phases. |

8.2.1 Germany

- Apprenticeship in Germany lasts approximately 3 years on average
- An apprentice must spend at least 1/2 day a week training in a vocational school
- German firms recruiting apprentices do not receive direct funding from public funds. Enterprises cover their own training costs (apprenticeship pay, cost of trainers, material etc.)
- Government funding of schools
- The apprentice earns a salary which increases every year and is on average one third of the starting wage for a skilled worker
- Public funds are also available to assist groups of small firms to set up and run joint training facilities (Group Training Associations)
- Some government financial support is available for training firms. Companies employing a trainee (beginning between July 2008 and December 2010) who has been searching for a training company for at least one year without success can receive a bonus of up to €6,000 (Hirschner, 2008)

8.2.2 Finland

- Training provided by Upper Secondary Level vocational institutions
- *Initial Vocational Qualification*: Average duration of Studies 3 years
- *Further Vocational Qualification*: Average duration of studies 4-12 months
- *Specialist Vocational Qualification*: Average duration of studies 4-12 months.

- Approximately 70-80% of the time is spent in the training workplace under the responsibility of on-the-job instructors
- Training is financed by the state. The annual subsidy paid for one apprentice is calculated from the average costs of vocational training in Finland, and it is 80% of this average cost. The costs of upper secondary VET in 2007 were on average €8,400 per student
- The state is responsible for fully covering funding - 100% of the unit cost confirmed by the Ministry of Education & Culture
- Apprentices on off-the-job training receive a daily allowance, family allowance and transportation and accommodation allowances from the state
- Employer pays apprentice a wage, approx 80% of skilled workers wages in that particular field. Employer is not obliged to pay wages for time spent in theoretical training
- Vocational Education providers receive statutory government transfer to cover the operating costs on the basis of unit prices determined by the Ministry of Education & Culture. The transfer is calculated to cover 42% of the operating costs on average. The unit prices are scaled per provider
- Some providers also receive performance-based funding based on Effectiveness (transfer to labour market), Processes (Drop Out rate) and Staff Qualifications. The performance based funding does not exceed 3% of the total amount of government transfer
- The state grants training compensation for the employers, which is compensation for the training given at the workplace. The amount of training compensation paid to the employer is agreed upon separately for each apprenticeship contract before the contract is approved

8.2.3 Norway

- 2+2 Model - 2 Years education and training in school followed by 2 years apprenticeship in an enterprise
- The apprenticeship training is funded over public budgets and the training enterprises receive a state grant for each apprentice (in 2009: € 11,347 over two years)
- Apprentices in upper secondary IVET are entitled to grants and subsidised loans through the State Education Loan Fund if they come from low income families. They also receive a subsistence grant if they live away from home
- In addition to the basic subsidy, the training company also receives approx €5,000 per apprentice in traditional crafts for example a trade which may die out due to lack of recruitment or the trade has cultural value
- In 2009, Enterprises who employed apprentices were granted €600 per apprentice. This is in addition to the ordinary grant designed to advance an apprentice with training rights to his or her qualifying examination.

This measure may have contributed to the intake of apprentices only falling marginally

- Apprentices are entitled to a salary agreed upon through a centralised system of collective bargaining. The salary corresponds to the productive work conducted. Since the productive work increases throughout the 2 year apprenticeship, the salary increases accordingly. Salary increases from 30% to 80% of a skilled worker's salary during the two years of apprenticeship

8.2.4 Switzerland

- Training is at upper-secondary level
- Programmes can take between two and four years
- Typically takes place at three different learning/training locations: vocational school; host company; and industry training centre
- Common patterns are one day per week at the vocational school and four days at the host company; or two days at the vocational school and three days at the company; or alternating between some weeks attending classes at the vocational school and some weeks attending an industry training centre
- To overcome an issue with some companies becoming increasingly specialised, training associations have been established whereby several companies share the task of training various apprentices so that they receive a broad enough education
- System is market driven. Students need first to find a place in a company and sign a contract. A place in a vocational school is then automatic
- Match between apprenticeship demand and supply is monitored through the "apprenticeship barometer" based on surveys of businesses and young people
- All vocational teachers (at schools), trainers (at host companies) and instructors (at industry training centres) must meet certain standards
- Funding of VET programmes is shared between public and private sources. In 2006, about 45% of VET costs were privately funded.
- Apprentice wages are set through collective bargaining at company level following recommendations from the industry associations

9 Some options for change

In the following pages, several options for change to the structure of the current system of apprenticeship are set out. *These are not intended to be either exhaustive or prescriptive, but to illustrate that alternative models exist, each with advantages and disadvantages.*

The options fall within 3 alternative schemes for the provision of apprenticeship and vocational training. Some potential advantages and disadvantages of each have also been described.

The three fundamental approaches to a future scheme of apprenticeship could be as follows:

- **A modified dual system of apprenticeship formation**
- **A pre-apprenticeship model**
- **An industry provided model**

Of course these three fundamental approaches are not mutually exclusive and apprenticeship formation can be developed along combinations of these approaches. The possibility also exists for the development of a new model of apprenticeship training.

9.1 Modified Dual Systems

The current blended alternance scheme (or dual system of alternating periods of training and education) could be retained with existing or revised governance structures but with the introduction of changes, for example, to expand the range of occupations covered as well as some form of demand and provision smoothing scheme. The off the job phases in a modified dual system could fall to be delivered by the ETBs, IoTs, or both, depending on the trade in question.

A key issue to be addressed is control of recruitment to smooth capacity planning. Some possible revised structures are outlined in the following paragraphs.

9.1.1 Planned Recruitment model

A planned recruitment model would limit the number of training places to a pre-determined figure, agreed between the State sector and employers for each planning period (say a rolling 2 or 3 years ahead). A maximum allowable number of recruits to each trade would be set for each planning period and recruitment regulated to this figure. Employers would be required to apply for an apprentice place from this quota.

| Advantages | Risks/Disadvantages |
|---|---|
| <ul style="list-style-type: none"> Increases in demand during upward surges would be managed | <ul style="list-style-type: none"> May not provide sufficient industry training places during down cycles |
| <ul style="list-style-type: none"> Future State Resources are planned and known in advance | <ul style="list-style-type: none"> System might become inflexible and slow to adapt to economic realities |
| | <ul style="list-style-type: none"> Constraints may be required at initial implementation to ensure employers do not recruit without permission |

9.1.2 Capacity Limited Model

As in the planned model, recruitment targets would be agreed in consultation with employers for any planning period. The State sector, in whatever mode of delivery was agreed, would provide training places up to that limit. If employers wished to recruit beyond the target, then this additional training would only be allowed if they formed part of an industry training network, which would provide and fund all training.

| Advantages | Risks/Disadvantages |
|---|---|
| <ul style="list-style-type: none"> More flexible than the planned model and can cater for unforeseen peaks/troughs in demand | <ul style="list-style-type: none"> Provision of industry-led element of training not guaranteed |
| <ul style="list-style-type: none"> Costs to the State are fixed and known in advance | <ul style="list-style-type: none"> Would need to be regulated so that in any downturn the industry provided training would be closed before the State sector |
| <ul style="list-style-type: none"> Unexpected demand would be funded by the employers requiring the recruitment | <ul style="list-style-type: none"> Quality assurance costs would increase because of the need to supervise non-standard providers |

9.1.3 Sub-Contracted Model

A further variation of the planned recruitment model would be to subcontract training outside the main provision for limited periods. Optional providers could include industry training centres or private colleges, for example.

| Advantages | Risks/Disadvantages |
|---|--|
| <ul style="list-style-type: none">• Reduces the impact of economic cycles on the State sector | <ul style="list-style-type: none">▪ Cost of such short term provision is generally more expensive per student than long term provision |
| | <ul style="list-style-type: none">▪ Quality assurance costs would increase because of the need to supervise non-standard providers |

9.2 Pre-Apprenticeship Model

In pre-apprenticeship models the State input takes place in an initial vocational education and training (IVET) context. There are several variations in Europe and internationally. The essence of the European schemes is that the learner attends a pre-apprenticeship vocational programme in upper secondary school or in a special training centre for a fixed period, usually about 2 years and graduates with a certificate. Employers recruit apprentices from these graduates and train them for a further 2 years. The employer training is usually independent of the State and without State training input, but the State usually normalises and regulates the final employer examination of the apprentice through an appropriate quality control system and may control employer curriculum and employer eligibility to take on apprentices. Employer groups may form training associations or groups to ensure an adequate range of skills is taught which might be beyond the capacity of any one employer. The State may support employer training through grant aid or company tax relief.

There are a number of ways in which an Irish pre-apprenticeship model might be constructed and some possibilities are listed in the paragraphs below.

9.2.1 IoT based Pre-apprenticeship Model

A pre-apprenticeship programme, set at NFQ Level 6 Higher Certificate, to be entirely delivered in IoTs. The entry level would be raised to standard Leaving Certificate entry through the CAO. Those who do not hold standard entry requirements could complete an approved pre-apprenticeship programme in a FE college. Employer recruitment would take place from graduates of the programme and apprentices would graduate with a second award as craftspersons at NFQ level 6 or 7 as appropriate, on successful completion of the industry training period.

| Advantages | Risks/Disadvantages |
|--|--|
| <ul style="list-style-type: none"> ▪ Citizenship, literacy, numeracy, personal development subjects carry significant weight in addition to technical formation | <ul style="list-style-type: none"> ▪ Loss of blended learning and adult socialisation which exists in the current model |
| <ul style="list-style-type: none"> ▪ Costs to the State are fixed and manageable | <ul style="list-style-type: none"> ▪ Academic learning tends to be predominant and the focus tends towards certification rather than practical competence |
| <ul style="list-style-type: none"> ▪ Decoupling State training from industry recruitment patterns | <ul style="list-style-type: none"> ▪ The loss of experiential learning reduces both the relevance and effectiveness of the academic learning provided |
| <ul style="list-style-type: none"> ▪ Substantial savings to employers as a result of a reduction of wages equivalent to 1.2 years of employment | <ul style="list-style-type: none"> ▪ Drop-out rates may be higher due to academic requirements |
| <ul style="list-style-type: none"> ▪ Substantial savings to the State as a result of elimination of training allowances for all off-the-job phases | <ul style="list-style-type: none"> ▪ Does not actually match supply with industry demand (in times of high demand it does not guarantee sufficient applicants in a timely manner and in times of low demand most graduates would be unable to find apprenticeships) |
| | <ul style="list-style-type: none"> ▪ Benefit of apprenticeship for persons leaving school with Junior Cert would be lost (such persons would have to complete an approved foundation programme before entry and would thus face an extended period in education without any guarantee of finding an apprenticeship on completion) |
| | <ul style="list-style-type: none"> ▪ Provision costs increase as a result of replacing 20 weeks in a FÁS centre plus 20 weeks in an IoT with 52 weeks in an institute |
| | <ul style="list-style-type: none"> ▪ Costs accruing from provision of preparatory programme in ETBs for non-Leaving Cert applicants |
| | <ul style="list-style-type: none"> ▪ In the majority of similar international models pre-apprenticeship training takes place during upper secondary education or in special training centres rather than higher education institutes |

9.2.2 Education and Training Board based Pre-apprenticeship Model

The Colleges of Further Education (CFEs), which currently provide some apprentice programmes in Mallow and Dun Laoghaire, have the capacity to provide the education phases of these programmes to an accepted standard. In addition, the former FÁS training centres have provided high quality Phase 2 apprenticeship training to high standards for around 30 years. Therefore consideration can be given to using the ETBs (either a CFE or FÁS or combined FÁS/CFE facility) for provision of some or all pre-apprenticeship training in a de-coupled model.

| Advantages | Risks/Disadvantages |
|--|--|
| <ul style="list-style-type: none"> ▪ Citizenship, literacy, numeracy, personal development subjects carry significant weight in addition to technical formation | <ul style="list-style-type: none"> ▪ Loss of blended learning and adult socialisation which exists in the current model |
| <ul style="list-style-type: none"> ▪ Costs to the State are fixed and manageable | <ul style="list-style-type: none"> ▪ Academic learning tends to be predominant and the focus tends towards certification rather than practical competence |
| <ul style="list-style-type: none"> ▪ Decoupling State training from industry recruitment patterns | <ul style="list-style-type: none"> ▪ The loss of experiential learning reduces both the relevance and effectiveness of the academic learning provided |
| <ul style="list-style-type: none"> ▪ Could form part of a greater co-ordination of training and education provision | <ul style="list-style-type: none"> ▪ Drop-out rates may be higher due to academic requirements |
| <ul style="list-style-type: none"> ▪ SOLAS would have integrated governance responsibility for both policy and funding | <ul style="list-style-type: none"> ▪ Loss the benefits of socialisation for the learner associated with a large IoT |
| <ul style="list-style-type: none"> ▪ Moving from school to an industry orientated training centre might be a good fit for early school leavers or for those who do not wish to enter a further academic environment immediately | <ul style="list-style-type: none"> ▪ Does not actually match supply with industry demand (in times of high demand it does not guarantee sufficient applicants in a timely manner and in times of low demand most graduates would be unable to find apprenticeships) |
| <ul style="list-style-type: none"> ▪ Replaces 20 weeks in a FÁS centre plus 20 weeks in an institute with an appropriate period in an ETB facility with consequent possible cost reductions | <ul style="list-style-type: none"> ▪ Separation of apprentice formation from the higher education sector would make progression paths less visible and would reduce the cross-fertilisation that currently exists between trades and higher education in the institutes |
| <ul style="list-style-type: none"> ▪ Substantial savings to employers as a result of a reduction of wages equivalent to 1.2 years of employment | <ul style="list-style-type: none"> ▪ Capital expenditure on equipment might be necessary or else transfer of equipment from IoTs where such equipment is not shared with higher education provision |
| <ul style="list-style-type: none"> ▪ Substantial savings to the State as a result of elimination of training allowances for all off-the-job | <ul style="list-style-type: none"> ▪ Staff migration from IoTs might be necessary |

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| phases (savings might be reduced if participants qualified for a trainee allowance in a FÁS centre but such an allowance might also incentivise disadvantaged persons to participate in the scheme) | |
| <ul style="list-style-type: none"> Similar structure to many European models | <ul style="list-style-type: none"> Terminal qualification would need to be recognised for direct entry to higher education |
| <ul style="list-style-type: none"> Could cater directly for Junior Cert entry | |
| <ul style="list-style-type: none"> Wide geographic distribution network of ETBs would facilitate local delivery and an expansion in the range of craft occupations, should that be desirable | |

9.2.3 Trade Dependent Pre-apprenticeship Model

A variation of the above Pre-apprenticeship models where the majority of pre-apprenticeship would be delivered in the ETB system but the pre-apprenticeship programme for more technological or capital intensive trades would be delivered totally in institutes of technology. The re-validation of apprentice programmes as individual programmes on the NFQ may facilitate such distinction.

| Advantages | Risks/Disadvantages |
|---|--|
| <ul style="list-style-type: none"> General advantages of previous 2 models apply | <ul style="list-style-type: none"> General disadvantages of the previous 2 models apply |
| <ul style="list-style-type: none"> More technologically based pre-apprenticeship courses would integrate easily into the IoT system | <ul style="list-style-type: none"> Governance remains complex as two authorities (SOLAS and the HEA) continue to have responsibility for elements of apprenticeship |
| <ul style="list-style-type: none"> Significantly less disruption of exiting provision and less of a need for staff redeployment | |
| <ul style="list-style-type: none"> Greater integration and less duplication of capital resources in the IoT sector and within the FÁS-ETB sector | |

9.3 Industry Provided Model

A significant source of difficulty for the State with the current model is that recruitment is fully industry driven, with downstream State capacity problems from either surges or reductions. The positive corollary is that the current system is totally sensitive to the needs of employers and recruitment is fully market driven. A novel approach, for Ireland, would be to make industry responsible for the entire programme with State involvement limited to overall regulation and quality assurance. The development of Skillnets enterprise led learning networks has shown how this model may work for vocational training.

Role of the State in an Industry Provided Model

The State role would focus on establishing and maintaining a legislative basis for the system, on policy, quality management and regulation of the system and of training provided. This approach is typical of the Germanic systems.

The State, in consultation with the social partners, would determine and regulate the content of programmes. It would be necessary to establish a regulatory framework, including an inspectorate to ensure compliance by delivery networks.

Role of Industry in an Industry Provided Model

Delivery would become the responsibility of industry. Industry would set recruitment targets and provide the necessary resources to deliver training, both on the job and off-the-job. Responding to surges and declines would be the responsibility of industry.

Possible structures might be based on a variation of, or expansion of, the Skillnets model, or use of Chambers of Commerce/Industry or of trade associations like the CIF, as is the practice in some European countries.

| Advantages | Risks/Disadvantages |
|--|--|
| <ul style="list-style-type: none"> ▪ Responsibility of industry to deal with impact on training provision of surges or declines in recruitment | <ul style="list-style-type: none"> ▪ Development and management of a robust regulatory system would be essential to ensure system quality. This would absorb a proportion of any saving. Control of geographical distribution of training would also be an important factor |
| <ul style="list-style-type: none"> ▪ All training allowance costs, including wages while training, would be the responsibility of the employers | <ul style="list-style-type: none"> ▪ Possibility of the apprenticeship system becoming disconnected from mainstream education and training provision (robust State regulation and compliance inspection in Germany and other jurisdictions has ensured coherent structures but such regulation has significant cost implications) |
| <ul style="list-style-type: none"> ▪ Skillnets provides a model for development of the structure | <ul style="list-style-type: none"> ▪ DES or State agencies would need clear functions and a mandate to determine curriculum frameworks to ensure that |

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|---|---|
| | curricula provided holistic learner development |
| <ul style="list-style-type: none"> Expanding the range of trades should be easier because the system would be driven by industry needs | <ul style="list-style-type: none"> A career guidance system or a recruitment service for apprenticeship would be critical to ensure fair and balanced access to training |
| | <ul style="list-style-type: none"> Possible impact on IoTs, ETBs, FÁS and their staffs |

9.4 Non-statutory based scheme

It would also be possible to move apprenticeship to a non-legislative scheme, perhaps through an expansion of the FÁS traineeship model and/or PLC model, both of which also combine alternating periods of on and off the job training.

| Advantages | Risks/Disadvantages |
|---|--|
| <ul style="list-style-type: none"> Less cumbersome governance arrangements would allow for more rapid responses to the training needs of the economy | <ul style="list-style-type: none"> There may be issues regarding the regulation and protection of apprentices, which would have to be assessed |
| <ul style="list-style-type: none"> Savings to the State and employers as a result of a reduction in the duration of the training and elimination of apprentice training allowances for all off-the-job phases (savings might be reduced if participants qualified for a trainee allowance in a FÁS centre but such an allowance might also incentivise disadvantaged persons to participate in the scheme) | <ul style="list-style-type: none"> Location of off the job phases of traineeships would need to be considered as well as the possible impact on IoTs, ETBs, FÁS and their staff |
| <ul style="list-style-type: none"> Substantial savings to employers as a result of a reduction of wages | |

9.5 Hybrid System

While the models outlined are listed separately, it would be possible to develop a system based on combinations of the models above. For example, the first year of the pre-apprenticeship model might be delivered in upper secondary or FAS centres, followed by the second year in IoTs. Alternatively the majority of pre-apprenticeship training might be totally delivered in upper secondary or FAS centres, with some trades being delivered totally in IoTs. Equally, Skillnets might be the vehicle for provision of training for specific industries, while IoTs might continue to provide training to other targeted sectors.

10 Key Questions to be addressed

Following on from the issues for consideration set out in Chapter 7 and taking into account the information outlined elsewhere in this document, there would appear to be several key questions which will need to be addressed in the context of this review:

- **Range of Occupations**

What are apprenticeships for? Should the range of occupations covered by the apprenticeship structure be broadened or should other avenues (traineeship/internship/work placement/PLCs etc.) be considered the most appropriate way to train young people in sectors outside of the traditional craft industries?

- **Governance**

Should there be a more coordinated governance process or can the apprenticeship programme be delivered outside of a statutory framework in future? How should the State best and most efficiently regulate the system to ensure compliance with national objectives?

- **Funding**

Is the current level of State expenditure on apprenticeship sustainable? Should some of the State training costs be transferred to industry or to the individual apprentices, recognising the benefits they receive from the training programme?

- **Recruitment**

Can a means of recruitment be determined which will ensure a stable inflow of apprentices to ensure adequate provision and enable accurate economic forecasting by the State? Can State provision be de-coupled or partially de-coupled from recruitment numbers, perhaps by employers taking responsibility for training delivery? What entry standard and level are required and are these dependent on the individual trade curriculum?

- **Curriculum and Award**

How should curriculum content be determined, to ensure a flexible response to changing economic and technological demand? What should the role of literacy, mathematics, civics and other core subjects be and how can they be balanced with technical competency requirements? How should the curriculum provide for flexible progression opportunities to other NFQ levels and programmes?

At what levels should apprenticeship qualifications be awarded, and should all apprenticeships warrant the same award? Can interim awards be considered or should the award only be available upon completion of the 4 year programme?

- **Providers and Delivery Methods**

Who should be the primary provider of training involved in apprenticeship formation? How can the balance of education and training between the state and employers be made sustainable? Can further flexibility be brought into the current structured framework? What balance should be struck between off-the-job, on-the-job and distance education delivery methods? Can a role for electronic web-based distance education be expanded, and how could it be integrated into the programme? To what extent should provision be in regional or national centres and is distribution of provision trade dependent. How should quality of training be set and monitored for all providers?

- **Duration**

Should the duration of the apprenticeship be matched to the learning outcomes required and the prior learning of the entrant, rather than be fixed? Do all apprenticeships require the same learning duration?