

> NEW APPRENTICESHIPS
IN ELECTROTECHNOLOGY



a Commonwealth Government Initiative

> a summary of research into why contractors
employ and train apprentices

Employer Engagement with New Apprenticeships in the Electrotechnology Industry

The Commonwealth Department of Education, Training and Youth Affairs (DETYA) is working with industry leaders to overcome recognised skill shortage issues in electrotechnology. As part of the National Industry Skills Initiative, the Electrotechnology Task Force has been looking at ways to encourage people to take up careers in the industry through electrotechnology New Apprenticeships.

For young people to enter electrotechnology New Apprenticeships, employers must offer New Apprenticeship positions; but little was known about why employers would do this.

The project *Employer Engagement with New Apprenticeships in the Electrotechnology Industry* has just been completed and reveals some interesting reasons why employers engage New Apprentices. It consisted of a literature review, statistical analysis of trends in the industry, qualitative interview phase and a survey of 901 employers in the industry.

This document presents a summary of the findings of the research.

The full report can be accessed at www.skillsinitiative.gov.au

> THE ELECTROTECHNOLOGY INDUSTRY

Electrotechnology is a vibrant, growing industry working at the forefront of technological change. The constant development of new technologies means that training to work in the industry must be flexible and responsive to new skill requirements. People working in electrotechnology occupations must be ready to react to changing market demands with new skill sets and technological know how.

Currently the industry has a high level of qualified tradespeople in the workforce (70%) and employment in the industry is forecast to grow by 2.5% in coming years. Employment in specific new technology skill areas such as voice and data communications is forecast to grow at 5% and higher.

The majority of employers in the electrotechnology industry are contractors and a large proportion of firms employ less than five people.

Availability of work and employment patterns in the industry are influenced by fluctuating activity and employment rates in industry sectors such as

construction, and information and communications technology.

Short contract and business cycles make it difficult for smaller contracting firms to take on a New Apprentice for a four year period.

The highly volatile market means that many contractors turn to subcontracting rather than employing New Apprentices who initially provide inexperienced and unskilled labour. The use of subcontractors meets regulatory requirements and short-term labour needs for contracts.

KEY FINDINGS

- **The two principal influences impacting on apprentice employment in the electrotechnology industry are:**
 - ▼ **Firm size; and**
 - ▼ **Availability/continuity of work.**
- **Just under half (48%) of the 901 firms surveyed currently employed an apprentice.**
- **Larger firms are more likely to employ apprentices with 82% of all apprentices employed by medium and large firms.**
- **About two thirds of all apprentices are employed directly with the remaining third being hosted through Group Training Companies.**
- **Overall, the supply and stock of skills in the industry suggest the industry is in a relatively strong position in terms of skill levels. However, changes in the structure of the industry and new skill demands are likely to put pressure on the industry. Voice and data exemplifies the changing structure to the industry with 45% of firms operating within that sector.**
- **All employers overwhelmingly view training apprentices as a good way to bring new skills into the industry.**

> KEY INFLUENCES AND DRIVERS OF EMPLOYER ENGAGEMENT

● Firm Size

Most employers currently employing apprentices are the larger (over 20 employees) and medium sized (6-19) firms.

> NEW APPRENTICESHIPS

> NEW OPPORTUNITIES

Non-trainers are predominantly very small businesses. Almost nine out of ten non-trainers are either sole traders or firms with less than five employees.

● Labour Market Structure and Business Cycle

The electrotechnology industry is made up to a large extent of small contractors in a highly volatile market dominated by short contract cycles.

The type of work in the industry requires high level skill which makes it difficult to employ inexperienced and unskilled labour. Consequently 58% of traditional trainers and 63% of recent trainers use subcontractors.

Long term contracts are relatively uncommon with only a quarter of firms engaging in this type of contract.

Over half (53%) the employers who had recently taken on apprentices did so to get new labour. Over half (57%) of those who had not taken on apprentices at all said they would if they had more work.

The benefits of taking on apprentices were reported as:

- **Apprentices are a cost-effective source of labour who can be trained in the company way.**
- **Taking on apprentices increases the labour supply and is a way of replacing tradesmen that leave.**
- **Large firms view apprentices as an on-going investment in the business and as a way of developing loyal employees. They also see apprenticeship employment as putting something back into the industry.**
- **Micro businesses see the easing of their workload as relatively more important.**

● Financial incentives

Historical data indicates that financial incentives have a positive influence on the behaviour of firms regarding the employment of apprentices.

There is a feeling by some firms, particularly non-trainers (36%), that employing apprentices is not cost effective and, although existing trainers were positive about having apprentices, 19% also reported that apprentices 'cost you money'.

One in eight (13%) non-trainers indicated that they would be influenced by greater financial incentives to take on an apprentice.

● Use of Group Training Companies

The reported employer experience of using a Group Training Company (GTC) is positive. Only a quarter (23%) of those who acted as GTC hosts believed that direct employment of an apprentice is preferable.

However, less than one in five employers currently host an apprentice through a GTC.

Surprisingly in an industry where almost half the firms are sole traders or have less than five employees, larger firms are more likely to employ an apprentice through a GTC than smaller ones.

● Apprentice supervision and training

Many of the barriers to and perceived disadvantages of employing apprentices seemed to be related to the youthfulness and lack of skills and experience of apprentices and the associated problem that their management cost the employer skilled staff resources.

Many employers considered that young people often received inadequate preparation at school for entry into an apprenticeship.

CONCLUSIONS & RECOMMENDATIONS

The electrotechnology industry is continuing to expand and is moving into increasingly high skilled and areas of new technology. There is also a high level of support among employers in the electrotechnology industry for the apprenticeship system and general satisfaction with current arrangements in place for taking on apprentices.

In response to the report findings, the following key areas have been identified to enhance future growth in new apprenticeships and skills training in the electrotechnology industry.

> SCHOOL TO WORK ARRANGEMENTS

Employers are concerned with the level of skills for new entrants especially in the early years of their apprenticeship. School to work issues are therefore a concern and need to be addressed.

- **It is recommended that resources be provided to support and build on the work already undertaken to improve the skills for new entrants to the industry.**

> ALTERNATIVE PATHWAYS

Whilst the traditional four year apprenticeship has served the sector well and continues to do so, the increase in demand evidenced by this research demonstrates that more flexible arrangements are needed to widen access for new entrants to the industry. Work needs to be undertaken to identify possible alternative pathways so that new skill formation is not inhibited.

It is recommended that:

- **Alternative pathways be further investigated, developed and trialled over the next three years;**
- **Such pathways to encompass the need for high skill levels at point of entry to the sector and alternatives, school based to industry pathways; and**
- **Industry aggressively promote and advocate alternative pathways to businesses.**

> GROUP TRAINING COMPANIES

The role of Group Training Companies is evident in the industry. The predominance of large firms using Group Training Companies is evidence of the success of the scheme, however as smaller employers dominate the sector, strategies are needed to attract them to use Group Training Companies.

It is recommended that:

- **Targeted resources be provided to increase the number of Group Training electro-technology projects under the Group Training New Apprenticeships Targeted Incentives Program for small or medium sized firms;**
- **The benefits of Group Training be marketed to small and medium sized firms in the industry; and**
- **Further work be undertaken to establish the consistency between the survey findings of direct employment with employment through Group Training Companies.**

> TARGETED INCENTIVES AND EMPLOYER SUBSIDIES

Incentives can influence the engagement decision and 50% of employers thought current incentives were insufficient. However, across the board changes may not be needed if incentives and subsidies can be targeted to specific areas of skill need. These areas should first be identified through industry and labour market analysis which will ensure available resources are strategically applied and results can monitored and evaluated.

It is recommended that:

- **A review of current levels of incentive and subsidy arrangements be undertaken which identify areas of under supply;**
- **Any such review should take particular note of areas of emerging skill need in the electrotechnology areas, specifically in the vital areas of communication/voice and data already noted; and**
- **A targeted incentives regime be developed taking into account the above.**

> INDUSTRY AND LABOUR MARKET ANALYSIS

The challenges facing the industry will change as new technologies become outdated and new methods of providing services take hold. The ability to fully understand changes that are taking place in a timely manner is crucial in order to meet the industry's constantly changing skill requirements. Research, such as this report, that put together statistics from a variety of sources on a regular basis is important for the industry to stay abreast of its skills and employment needs.

Key elements of analysis include:

- Identifying emerging skill sets and new requirements;
- Econometric studies to identify demand in each sector;
- Statistical analysis of labour force demand and supply; and
- Trend analysis and the projections of apprentice and other key data.

It is recommended that:

- **Further resources be made available so that existing information relating to skill shortages can be tailored to the needs of the electrotechnology industry;**
- **Such information be available through a website and build on existing work.**

This is an in depth study that will be presented to the Government and form the basis of representations to address the problems identified. This valuable work for the industry will provide the platform for policy making in the short to medium term and be the basis of structural change.



National Electrical and
Communications Association
Tel (03)9645 5566
Fax (03)9645 5577

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