

Women in Industry Training 2000-2003

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Introduction

The Industry Training Federation (ITF) has been concerned about the apparent inequity in women's participation in Industry Training, including Modern Apprenticeships. The headline figures are stark – only 24% of industry trainees are women; only 7% of Modern Apprentices are women.

This research explores women's participation in Industry Training including Modern Apprenticeships in an attempt to begin identifying the nature of this participation, and the extent to which gender imbalances in participation constitute a problem. This inquiry has drawn the ITF into consideration of labour market dynamics, international comparisons, and examples of practical approaches that work.

The ITF's purpose is to develop a general overview of women in Industry Training as a basis for further analysis and dialogue. The ITF hopes that this discussion paper will lead to more focussed analyses that provide a picture of women in Industry Training and tertiary education, and action that should be taken.

Executive Summary

Conclusions

- Women's participation in structured workplace training has grown significantly in absolute and proportional terms since the introduction of the Industry Training Strategy in 1992. Growth has been particularly impressive over the past 3 years.
- Female trainees are concentrated in service and care-related sectors, which broadly reflects women's distribution in the workforce. This pattern is also mirrored in the experience of Australian women in the workforce and workplace-based training.
- Care should be taken in drawing direct comparisons between women's participation in the workforce of particular industry sectors and their participation in related Industry Training sectors.
- Nevertheless, there is some reason to believe that women's participation in some industries is lower than would be expected, given their share of employment. The reasons for these disparities are known in some cases, but require further investigation.
- The potential for women to participate in Industry Training will increase significantly when areas of significant female employment (health, education, finance) are covered by Industry Training Organisations (ITOs). In the absence of this expansion, women's overall participation in training is likely to remain lower than men's.
- Women's participation in Modern Apprenticeships is limited by the range of industries included within the Scheme, and the limited number of funded places.

Areas for possible action

1. There may be potential to expand female Industry Training participation by increasing the number and range of training opportunities available for the occupational positions women tend to hold (e.g. managerial and clerical positions). This may require the development of new qualifications, or the modification of existing qualifications to meet specific industry needs.
2. Promotion of Industry Training and Modern Apprenticeships could include more images of women, particularly in non-traditional roles and in non-traditional industries.
3. Research could be undertaken to test whether gender discrimination by employers is limiting women's participation.
4. Industry Training coverage could be extended to industries that have labour dominated by women (e.g. education, health, finance). This would,

however, require an analysis of the relative net gains to be made relative to (for example) expansion of existing industries.

5. The number of modern apprenticeship places should be based more on demand.
6. The range of modern apprenticeship industries should be increased to include those where women are more strongly represented.

Process of Inquiry

Although the rate of women's participation in Industry Training has grown since the Industry Training Strategy began in the early nineties, there has been very little research that has explored the causes of change. There is a real need to understand the issues and drivers of women's participation, or non-participation in Industry Training.

An examination of women's participation in Industry Training and the workforce from 2000-2003 provided an overall picture of the sector and the trends that had emerged in women's participation. Qualitative data was gathered from face-to-face and telephone interviews. Statistical data was sourced from the Tertiary Education Commission, Ministry of Education, Statistics NZ, Department of Labour, and the Australian National Training Authority.

Once the issues had been determined, international studies in vocational education and the labour force from Australia and the United Kingdom were undertaken as a benchmarking activity. Recommendations were drawn based on the findings that will help address the issues within Industry Training and the workforce.

What is Industry Training?

Industry Training is education and training arranged by an Industry Training Organisation (ITO) in the workplace and/or with a registered and accredited tertiary education provider. A person is eligible to engage in Industry Training if they are employed and their employer has signed a training agreement with the ITO and the employee.¹ This is a key difference between other forms of tertiary education as the employer rather than the learner must, at least in the formal sense, make the final decision to engage in training.

The Industry Training Strategy was established in 1992 in order to improve the responsiveness of the education system and labour force to the needs of a diversifying and globalised economy.² Amongst its other goals, the Strategy was also intended to improve the participation in structured workplace training of groups who had been “largely excluded” from the previous apprenticeship system – “women, Maori and Pacific Island people.”³

Legislative and Policy Context

Society has a strong expectation that women will not be excluded from key life opportunities (including participation in education and training) on the grounds of gender. This expectation is expressed generally in the Bill of Rights Act 1990 and the Human Rights Act 1993, and has been expressed more specifically in a number of other official statements.

The principle of equity of access to Industry Training has been stated in the Industry Training Act 1992 (which requires the Tertiary Education Commission to consider equity issues in its Industry Training funding decisions) and the Modern Apprenticeship Training Act 2000 (which requires Modern Apprenticeship coordinators to have particular regard to the needs of Maori and Pacific Islands peoples of New Zealand, people with disabilities, and women). The Tertiary Education Commission (TEC) gives effect to these expectations by requiring ITOs to record the gender demographics of its industry and the gender demographics of its trainees and where appropriate, progressively make every reasonable endeavour to align the demographics of trainees with the demographics of its industry⁴. This information is then used as a factor in TEC’s funding decisions.

Government’s interest in greater equity of access has also been expressed in its policy statements. The Tertiary Education Strategy 2002-07 states under strategy 4, objective 20 “Equity of Access and opportunity for all learners” that by 2007, women will be participating more in Industry Training⁵. Similarly, the

¹ In certain circumstances, volunteers may count as ‘employees’ for the purposes of Industry Training (e.g. volunteer firefighters)

² Industry Training Federation, A Brief History of Government Funding for Industry Training 1989-2002 (Wellington, ITF, 2003)

³ Report of the Inter-Departmental Working Party on Skills Training (1991), p.2

⁴ Pg. 8, Part three, section 3 (c) Agreement for the funding of Industry Training between Skill New Zealand and an ITO, 2002.

⁵ Pg. 45, Tertiary Education Strategy 2002-07

Government recently amended the priorities and goals of its Employment Strategy to emphasise: “Improving participation in employment, earnings and the quality of employment for women”⁶ (amongst other under-represented groups).

Finally, New Zealand is also a signatory to international treaties and agreements which require members to progressively remove discrimination and other obstacles to women’s full participation in society and the economy. One example the United Nations’ Convention for the Elimination of all forms of Discrimination Against Women (CEDAW). Amongst other expectations, the Convention obliges countries to:

“end discrimination in education, including in professional and vocational training, access to curricula, and other means of receiving an equal education and to eliminate stereotyped concepts of the roles of men and women” (Article 10); and

“end discrimination in the field of employment, including the right to work and [ensure] access to employment opportunities, to equal remuneration, to free choice of profession and employment, to social security, and to protection of health (including maternal health) and also ends discrimination on the grounds of marriage or maternity” (Article 11).

The New Zealand Government reports to the CEDAW committee annually on progress against the treaty⁷.

Equity of access to Industry Training

At a high level, it could be argued that the Industry Training Strategy has had some success in achieving its initial goal of feminising training. In 1992 women made up 12% of industry trainees - this increased to 23% by 2002.

However, to get a better sense of how well Industry Training is performing in terms of equity of access, it is important to consider participation at the level of individual ITOs, against the context of women’s participation in the New Zealand workforce, New Zealand women’s participation in workplace training in an international context, and New Zealand women’s participation in Industry Training relative to the overall tertiary education system.

⁶ Pg 15, Strategy: Progress to Date July 2001-December 2002

⁷ www.cedaw.org/facts_home

Women's participation in Industry Training

The patterns of women's participation in Industry Training between 2000 and 2003 show that service and care-related industries are major centres of female participation:

Table 1: ITOs with biggest share of total female trainees, 2000-03

2000		2001		2002		2003	
ITO	Share of female trainees	ITO	Share of female trainees	ITO	Share of female trainees	ITO	Share of female trainees
SFRITO	10.9%	CSSITO	16.2%	CSSITO	14.5%	CSSITO	17.3%
Hairdressing	10.2%	Hairdressing	8.6%	Hospitality	11.8%	Hospitality	10.8%
CSSITO	9.9%	Hospitality	8.5%	SFRITO	7%	Competenz	7.1%
Retail ITO	8.5%	Competenz	7.6%	Hairdressing	6.6%	Electrotech	6.8%
Competenz	7.5%	Electrotech	7.1%	Electrotech	6.65	Hairdressing	6.4%
All others	53%	All others	52%	All others	53.5%	All others	51.6%

Note: "Competenz" is the trading name for the Engineering, Food and Manufacturing ITO. "CSSITO" is the Community Support Services ITO. "SFRITO" is the Sports, Fitness and Recreation ITO.

The largest expansion in absolute female trainee numbers between 2000 and 2003 occurred in industries that have traditionally had high levels of women in the workforce (community support, hospitality). However, several 'non-traditional' industries and newer ITOs have also shown notable increases in female participation, such as aviation, agriculture, electrotechnology and forestry:

Table 2: Growth in female trainees, 2000-2003

ITO	Growth in female trainees	Share of total growth
Community Services	2,403	28.7%
Hospitality	1,410	16.8%
NZITO (Dairy)	924	11%
Aviation, Travel & Tourism	913	10.9%
Electrotechnology	748	8.9%
Public Sector	672	8%
Forestry	556	6.6%
Competenz	539	6.4%
Agriculture	459	5.5%
TOTAL GROWTH 2000-03	8,376	

Note: NZITO covers the dairy industry

Women generally make up the minority of trainees in most industries, except for service and care-related sectors. However, it is notable that in some cases, the absolute number of women in training has increased whilst the proportion of female trainees dropped or remained static (e.g. Engineering, Food and Manufacturing, Horticulture, Hospitality, Aviation, Ambulance). This suggests that low proportions of women in training may not necessarily be evidence of inequity, since they can exist alongside increasing training opportunities for women:

Table 3: Proportion of ITO trainees that are female and total number of female trainees, 2000-03

ITO	2000		2001		2002		2003	
	%	#	%	#	%	#	%	#
Agriculture	17.9	731	21.5	1027	22.5	1252	20.3	1190
Ambulance	55.6	485	58.1	386	60.9	488	60.9	539
Apparel and Textile	44.3	371	46.6	444	48.9	486	52.2	570
Aviation	48.6	279	40.5	282	61.0	1037	60	1192
Boating	1.5	3	2.2	8	1.1	5	0.6	3
Building	0.4	11	0.4	12	0.4	12	0.4	18
Building Service Contractors	74.2	340	69.3	239	61.8	210	50.1	176
Community Support	89.8	1289	91.3	2354	93.3	2807	94.6	3692
Contracting	1.2	18	1.2	12	1.2	13	3.4	57
DCCITO	0	0	28.6	2	19.3	21	0	0
Electricity Supply	4.4	118	4.9	160	4.8	160	5.7	161
Electrotechnology	21.5	710	24.4	1031	26.0	1274	25.2	1458
Engineering, Food & Manufacturing	15.6	968	15.7	1108	14.6	1222	14.9	1507
Equine	46.3	93	40.9	83	42.3	74	46.6	88
Extractives	3.1	39	2.6	31	3.6	47	3.2	66
Fire & Rescue	5.9	59	6.4	81	7.7	103	10.4	97
Flooring	6.1	10	5.3	11	5.0	13	2.8	8
Forestry	3.7	327	4.7	381	6.2	822	6.9	883
Furniture	5.7	22	6.6	28	6.6	40	7.6	50
Gas & Petrochemical	6.5	36	2.1	16	4.7	36	0	0
Hairdressing	91.3	1323	92.8	1248	93.1	1278	92.8	1372
Horticulture	25.1	181	24.4	202	22.3	248	20.3	275
Hospitality	60.8	889	59.7	1240	60.6	2279	59	2299
Joinery	0.8	3	0.5	2	0.6	3	0.1	21
Leather	17.5	29	17.4	26	16.1	20	9.5	6
Local Government	28.3	63	31.1	84	26.3	79	25.1	84
Meat Processing	24.0	107	22.0	168	N/A	NA	NA	NA
Motor	1.4	34	1.5	39	1.2	37	2.3	82
NZITO (Dairy)	10.8	286	12.0	344	15.9	673	19.1	1210
Painting	4.5	27	4.0	13	4.6	20	4.1	21
Pharmacy	NA	NA	NA	NA	NA	NA	95.8	69
Plastics	9.5	60	11.0	66	9.9	68	8	51
Plumbing	0.5	5	0.3	3	0.4	4	0.3	3
Power Crane	0.7	2	1.0	5	1.7	8	2.2	10
Printing	11.1	41	14.5	60	13.3	59	11.9	56
Public Sector	68.8	11	51.9	150	38.5	370	57.3	683
Retail Meat	32.1	147	17.0	70	14.2	67	11.4	53
Retail Training	55.2	1101	57.1	727	52.5	775	55.1	715
Road Transport	7.1	310	5.2	228	6.3	335	6.2	265
Seafood	34.9	497	33.7	343	30.7	455	28.9	523
Sports, Fitness & Rec.	44.0	1417	44.6	1004	50.6	1341	53.8	1316
Sports Turf	1.9	6	2.7	8	1.9	5	6.5	24
Te Kaiawhina Ahumahi	80.2	514	77.7	809	75.9	1060	74.4	445
TOTAL	20.6	12962	21.9	14535	23.1	19306	23.7	21338

Women in the New Zealand workforce

Over half of all women in the workforce are employed in the Health and Community Services, Education, and Property and Business Services sectors. It is worth noting that a significant proportion of the health sector and the entire education sector fall outside of the coverage of the Industry Training network.

Women make up the significant majority of employees in the Finance and Insurance, Education, Accommodation, Cafes and Restaurants, and Health and Community Services sectors. The retail, property and business services, Government administration and defence, cultural and recreational and personal and other service industries all have a fairly even gender spread. The industry sectors with the lowest proportion women were forestry and mining, and construction.

Table 4: Distribution of employed women, by ANZSIC⁸ Group, December 2003

ANZIC Group	% of all women in employment	# of jobs	Female participation
Forestry & Mining	0.2	13,400	11.94%
Manufacturing	8.59	229,500	28.55%
Electricity, Gas & Water	0.26	6,800	30.88%
Construction	1.79	93,100	15.36%
Wholesale Trade	4.6	104,500	35.12%
Retail Trade	14.7	219,600	53.37%
Accommodation, Cafes and Restaurants	7.44	94,400	62.82%
Transport, Storage & Communication	4.48	101,600	35.14%
Finance & Insurance	3.61	46,400	62.07%
Property & Business Services	12.88	189,700	54.14%
Government Admin & Defence	3.61	50,800	56.69%
Education	13.07	150,000	69.47%
Health & Community Services	18.45	176,000	83.58%
Cultural & Recreational Services	2.55	40,100	50.62%
Personal & Other Services	3.76	57,100	52.54%
TOTAL INDUSTRIES	100%	1,583,500	50.34%

⁸ Australia New Zealand Standard Industry Classification

Women's Industry Training participation in the context of their workforce distribution

There are some technical difficulties in making direct comparisons between workforce sectors and Industry Training statistics. First, ITOs' coverage (i.e. the industries and industry sectors they are mandated to serve) does not always match easily with the ANZSIC categories, and often, there is an unequal distribution of women within industry sectors.

Second, there is often a difference between an ITO's coverage and its actual served market. Industries and sectors differ considerably in terms of their firm types (e.g. the distribution of micro, small, medium and large firms), their geographical distribution and ease of access, and training needs (amongst many other factors). Given this diversity and current funding rates, some ITOs may face more challenges than others in providing a wide coverage of training to their industries and sectors. For example, ITOs that serve industries with a high number of small enterprises scattered over the country may face higher per-trainee costs than an ITO which serves an industry with a smaller number of large firms. Funding rates do not recognise such cost differences.

Third, industry sectors differ in their need for training below level 4 on the National Qualifications Framework (which is where ITOs are required to use the bulk of their Government training funds). For example, policy agencies in the public sector employ high numbers of university graduates. Finally, ITOs are somewhat limited in their ability to fully meet industry demand, since Government funding is capped and its allocation is based on a number of factors other than demand.

With these caveats in mind, however, it is possible to make some broad comparisons. Since there was only a restricted range of industry data available at the time of this report, these comparisons are necessarily limited. The data available appears to indicate that women in many industries are not participating in training at levels reflecting their labour force participation:

Table 5: Industry and Industry Training demographics, December 2003⁹

ITO	% of women in industry	% of women in training
Agriculture	21%	20.3%
Aviation, Travel & Tourism	45%	60%
Boating	15.3%	0.6%
Building	11.2%	0.4%
Contracting	7.9%	3.4%
Engineering	25%	14.9%
Electrotechnology	36%	25.2%
Electricity Supply	29.4%	5.7%
Flooring	13%	2.8%
Forestry	14.3%	6.9%
Furniture	21.5%	7.6%
Horticulture	41.8%	20.3%
Hospitality	63%	59%
Joinery	1%	3.7%
Motor	23%	2.3%
Plastics	25.6%	8%
Plumbing	8.2%	0.3%
Public Sector	44%	57.3%
Printing	25%	11.9%
Road Transport	21.6%	6.2%
Seafood	32.8%	29%

⁹ Industry data from the Tertiary Education Commission

Female workplace training participation in an international context

Information from Australia on women's participation in workplace training and in the workforce was used as a basis for comparison and possible benchmarking for New Zealand. This selection was made on the grounds that Australia and New Zealand have similar economic and cultural features¹⁰ and comparable workplace training systems, and because of the high quality of Australian VET data.

Australian women are concentrated in much the same industries as their New Zealand counterparts. However, Australian women appear to participate in the labour force at slightly lower rates than their New Zealand equivalents in most industry sectors.

Table 6: Distribution of employed Australian women, August 2003

Industry sector	% of all women in employment	% of female workers in sector
Agriculture, Forestry and Fisheries	2.7%	30.3%
Mining	0.2%	11.1%
Manufacturing	7.1%	27.5%
Electricity, Gas & water Supply	0.4%	21.9%
Construction	2.1%	11.7%
Wholesale Trade	3.2%	30.3%
Retail Trade	17.4%	50.9%
Accommodation, Cafes & Restaurant	6.2%	56.5%
Transportation & Storage	2.4%	24%
Communication Services	1.3%	30.1%
Finance & Insurance	4.4%	54.6%
Property & Business Services	12.1%	44.6%
Government Administration and Defense	4.9%	48.4%
Education	11.6%	68.4%
Health and Community Services	17%	77.7%
Cultural and Recreational Services	2.7%	48.5%
Personal and Other Services	4.3%	48.9%

Despite these slightly lower labour force participation rates, women made up 34% of all apprentices and trainees¹¹ in Australia. This comparatively higher presence in workplace training is explained by the high proportion of Australian apprentices and trainees in clerical, sales and service industries¹².

As in New Zealand, participation by women in Australian workplace training (especially New Apprenticeships) is "highly gender segmented"¹³. Australian female trainees and apprentices are concentrated in the following ANZSIC industry categories:

¹⁰ It is recognised, however, that Australia is a much larger and more diverse economy and that it differs from New Zealand in having a significant natural resources base

¹¹ Persons who undertook vocational training through contract of training arrangements

¹² Australian Apprentice and Trainee Statistics March Quarter 2002

Table from NCVER, Australian Apprenticeships: Facts, Fiction and Future (Leabrook, NCVER, 2001), p.87

¹³ ANTA, Transforming VET transforming women, pp.3-89

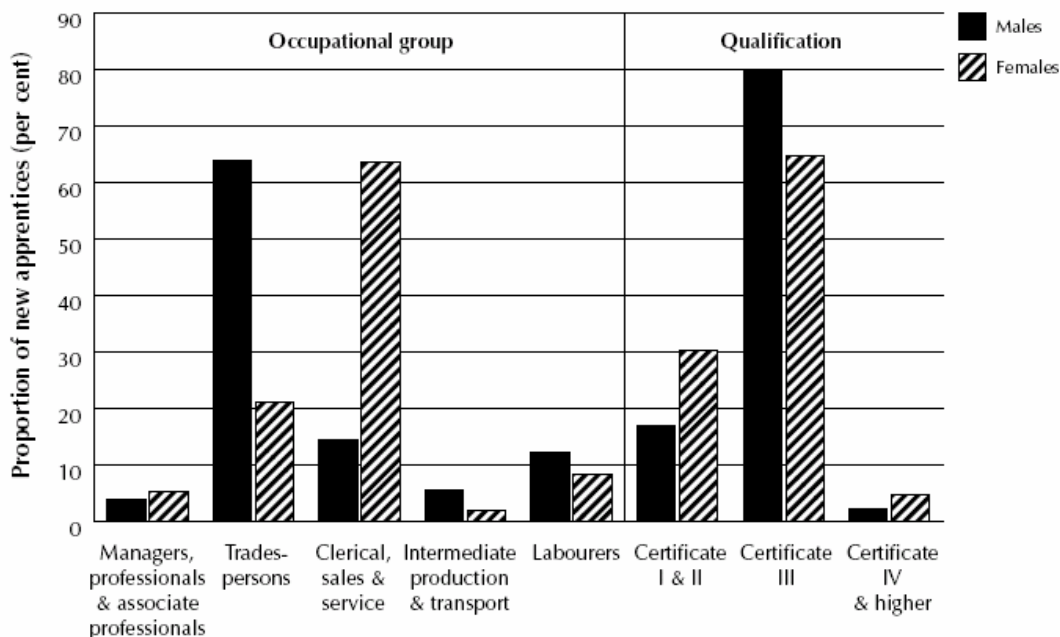
- Cultural & Recreation Services, Accommodation, Cafes & Restaurants, Personal & Other Services;
- Communications Services, Finance & Insurance, Property & Business Services;
- Wholesale Trade, Retail Trade”¹⁴.

Females are “markedly underrepresented” in the ‘Agriculture, Forestry & Fishing, Mining’ industries.

According to the Australian National Centre for Vocational Education Research,

“females share a slightly higher representation than males in new apprenticeships in the managerial and administrative, professional and associate professional occupations. Males have higher proportions than female new apprentices in the intermediate production and transport and labourer occupations. These patterns largely mirror the occupational segregation by gender found in the Australian labour market”¹⁵.

Figure 10: Differences in the types of new apprenticeships undertaken by males and females, June 2000



In addition, women made up only 12% of ‘traditional apprenticeships’, whereas they made up almost half of ‘other’ apprenticeships.¹⁶ ‘Other apprenticeships’ included the sectors brought into structured workplace training by the New

¹⁴ Ibid.

¹⁵ NCVET, Australian Apprenticeships: Facts, Fiction and Future (Leabrook, NCVET, 2001), p.86

¹⁶ ‘Traditional apprenticeships are defined as those contracts within the trades and related workers occupation group which are at Australian Qualification Framework III qualification or above, with more than two years expected duration for full-time, or more than eight years expected duration for part-time or school-based contracts. Other apprenticeships and traineeships included all other contracts which did not meet the criteria above.

Apprenticeship Scheme. Women's participation in 'other apprenticeships' (44.5%) more closely mirrored women's proportion in the workforce.¹⁷

The Australian National Training Authority has attributed a large portion of recent growth in the New Apprenticeships scheme to female commencements. This increase is mainly due "to the expansion of traineeships and structured entry-level training opportunities into non-trade, traditionally 'female' areas such as clerical and service workers, and industries and occupations where those structured training arrangements had previously not been available."¹⁸

Table 11: Apprentices and trainees in-training at 31 December by sex (percentage)

	1996	1997	1998	1999	2000	2001	2002
'TRADITIONAL APPRENTICESHIPS**							
Male	89.2	89.1	89.1	89.0	88.6	88.2	88.0
Female	10.8	10.9	10.9	11.0	11.4	11.8	12.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total ('000)	101.3	102.2	102.5	107.9	112.7	110.7	115.4
OTHER*							
Male	63.9	58.5	53.5	55.1	55.2	54.6	53.2
Female	36.1	41.5	46.5	44.9	44.8	45.4	46.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total ('000)	62.0	83.3	114.3	147.3	182.2	214.4	253.7
TOTAL							
Male	79.6	75.4	70.3	69.4	68.0	66.1	64.1
Female	20.4	24.6	29.7	30.6	32.0	33.9	35.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total ('000)	163.3	185.5	216.9	255.2	294.9	325.1	369.1

Note: *Refer to endnote for definition.

Source: NCVET Apprentice and Trainee Collection number 36

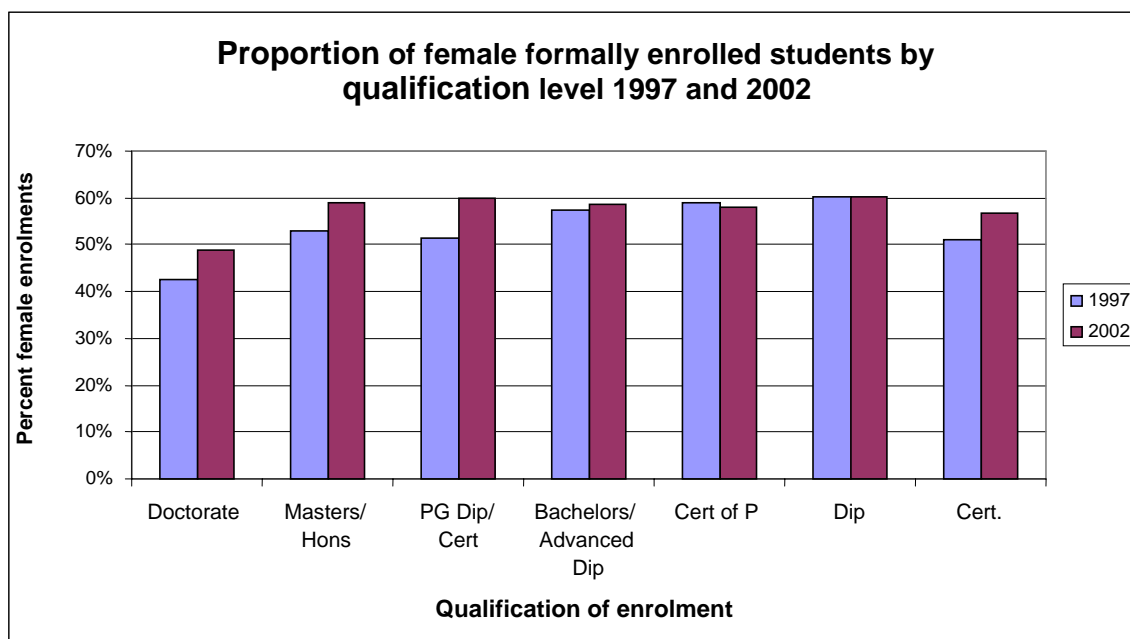
¹⁷ NCVET, Australian Vocational Education and Training Statistics: Trends in 'traditional apprenticeships' (Leabrook, NCVET, 2004), p.18

¹⁸ Australian National Training Authority, Transforming VET transforming women: an evaluation report on the National Women's Vocational Education and Training Strategy 1996-2000 (Brisbane: ANTA, 2001), p.37

Female participation in other parts of the tertiary education system

One possible reason for lower female participation in Industry Training could be a preference by women for higher-level education given ITOs' ability to offer advanced training is limited by current funding policy.

Women have certainly embraced provider-based education at a faster rate than men. Since 1993 women's participation rates in tertiary education institutions have been higher than men¹⁹. Women now make up 58% of all enrolments at tertiary education providers²⁰ in New Zealand, and 62% of New Zealanders completing a first degree are women²¹.



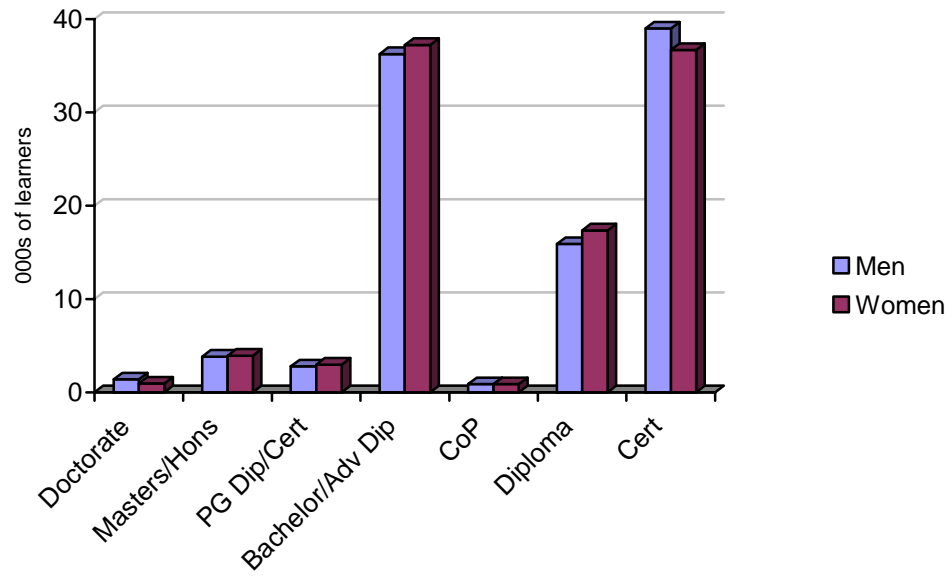
However, there do not seem to be significant differences in the distribution of male and female students across qualification levels, suggesting that lower rates of female Industry Training participation is not due to the 'pull' of higher-level education.

¹⁹ Ministry of Education "New Zealand's Tertiary Education Sector Report – Profile and Trends 2000", p21

²⁰ The Education Act 1989 defines a tertiary education provider as "an institution, a registered establishment, a government training establishment, or any other person or body that provides, or proposes to provide, tertiary education and that is funded through non-departmental output classes from Vote Education".

²¹ Ministry of Education "New Zealand's Tertiary Education Sector Report – Profile and Trends 2002", P11

Distribution of tertiary students by sex and qualification level, 2002



Discussion

In considering how well Industry Training is providing equity of access, it is necessary to ask two questions:

- Are women being excluded from participation in Industry Training?
- If exclusion is occurring, on what basis?

This report has only looked at a relatively short time period (2000-2003), so any findings are necessarily tentative. Nevertheless, some conclusions can be drawn.

First, the numbers of women in structured workplace training have grown considerably since the beginning of the Industry Training Strategy in 1992, and in general the numbers of women in training have grown faster than those for men. In other words, opportunities for women to participate in Industry Training have progressively expanded.

However, the distribution of these new opportunities varies considerably. A significant proportion of female trainees are concentrated in service and care-related industries. Does this continued focus on 'traditional' areas constitute evidence of exclusion or inequity? Not necessarily. In absolute terms, there has also been significant growth in female trainee numbers in several 'non-traditional' industries and new ITOs, including agriculture, aviation, electrotechnology, and forestry.

The relative concentration in service and care-related industries also broadly mirrors both women's participation in the New Zealand labour force and women's participation in workplace training in Australia. Furthermore, the exclusion of the education, finance and insurance and much of the health sectors from the ITO network means that possibly up to 200,000 women can not participate in Industry Training. As a result, women are likely to remain as a minority of trainees overall until the network is expanded to cover these sectors.

That said, and keeping in mind the technical problems in comparing industry and Industry Training demographics, there do appear to be some discrepancies between the total number of women in an industry and in training. Whilst this is not necessarily evidence of exclusion, it does raise questions as to why variances exist.

Several possible causes for the variances can be identified. First, employers may be systematically discriminating against female employees in deciding who will access training. An ANTA assessment of its recent National Strategy for Women in Vocational Education and Training noted that "some employers continue to hold negative and stereotypical perceptions of women. A significant number of employers recruited apprentices through informal networks or word-of-mouth which have traditionally not included women." Similarly, Murray has pointed to employer discrimination as a reason for poor female participation in Modern Apprenticeships, although her supporting evidence was drawn from two

'traditional' industries (engineering and electricity).²² Discrimination cannot be definitively confirmed or refuted without further research. Unfortunately, such research is beyond the scope of this report and beyond the resources of the Industry Training Federation.

Another possible cause is that male employees are in greater need of training or are in positions where training will provide the greatest benefit to the firm. Although unlikely, this hypothesis too requires further research before it can be confirmed or denied.

Alternatively, there may be a lack of suitable training options for the positions that women tend to occupy within an industry. Gender segregation can be vertical, with men's and women's roles defined by the types of positions they take on within industries. For example in some industries women take on the role of office administrators while the men take on the technical and field based roles. As seen earlier, the majority of female Australian apprenticeships were in 'clerical, sales and service' positions.

Analysis undertaken by the Electricity Supply Industry Training Organisation (ESITO) to assess its responsiveness to women, Maori and Pacific Island peoples concluded that comparatively low participation rates by women²³ in its sectors was due primarily to problems with training in clerical and management areas. The majority of women working in the electricity supply industry are in clerical, management and professional roles, and only 40% of them have a tertiary qualification²⁴. Less than 2% of women were in training for technical based roles in the industry.

ESITO identified that training in clerical based roles was not a priority for employers, and that the business administration qualifications that were available were too broad, provided too much choice, and needed more specific generic unit standards to the electricity supply industry that can be assessed.

There may be merit in exploring in more depth the extent to which training pathways are available and open for occupations that women tend to hold within sectors covered by ITOs.

²² Nicky Murray, "Girls can do anything? Women and Industry Training in New Zealand" (Paper presented to the SAANZ 2003 Conference: 'Knowledge: Capitalism: Critique' at the Auckland University of Technology, 9—11 December 2003)

²³ Women's participation rate in the electricity supply Industry Training has remained largely unchanged from 2000-2002, although female participation in the workplace has grown by 10% since 1996.

²⁴ ESITO Responsiveness Report – Maori, Pacific Island and Women's Participation in the Electricity Supply Training: Continued Progress 2002

Possible responses

Several possible responses arise from this report. First and foremost, further research is necessary to test some of the possible causes of lower female participation in Industry Training. A greater understanding of these causes will enable the development of more effective and efficient responses.

Another possible response is to actively promote the participation of women to employees and employers. The Australian National Training Authority has identified the importance of such pro-active approaches, including “media strategies ... mentoring, women-only courses, and industry/employer incentives for taking on women apprentices”²⁵. ESITO’s work on improving responsiveness to under-represented groups reached very similar conclusions, and includes a number of strategies to improve women’s participation, including:

- a scholarship programme for pre-trade qualifications
- developing promotional material showing women in a range of roles
- marketing to girls secondary schools
- recommending specific HR policies aimed at women to employers
- identifying human resource initiatives for employers that could enable and encourage more women to train (e.g. skill-based pay, paid training leave, hiring temp staff to provide cover, and the provision of on-site childcare).

ESITO believes they can align training numbers with the demographics in the long term by continuing to implement marketing strategies and initiatives aimed at changing attitudes towards women entering their industry²⁶. Each industry is different, yet there may be potential to expand this approach to other ITOs.

Another approach is to promote increased female participation through indirect methods, such as increasing certification expectations. For example, a project was recently undertaken by the ATTTO to benchmark travel agencies’ in-house training to the national qualifications standards. This resulted in the travel industry mandating their minimum qualification requirements against the national qualifications framework. Many women received their qualifications through recognition of prior learning and current competency processes. The RPL and RCC processes allow skills and knowledge gained through paid or un-paid work, study and life experiences to be recognised within a rigorous process towards a qualification. RPL and RCC provide women with an effective mechanism to formalise skills and experiences and increase their potential for career progression and/or pay increases.

The experience of ATTTO suggests that a structural response within an industry such as having a specific section of industry certified can have marked effects on the overall gender balance of those in an industry who are training. How the increasing certification in different industries will change the gender balance of those in Industry Training is yet to be discerned.

²⁵ ANTA, Transforming VET transforming women, pp.38-9

²⁶ Phone interview with Michele Deegan, Programme Manager, ESITO

Given that one of the causes of the Industry Training Strategy's success is the fact that it is industry controlled and directed, and the fact that employers make the key decisions about where and when to invest in training, it will be important that any responses encourage, rather than compel, employers to increase female participation. The Government's goals of increasing trainee numbers to 250,000 by 2007 and expanding the Industry Training network's coverage to small and medium-sized enterprises are dependent upon the maintenance of industry 'ownership'.

Modern Apprenticeships

Although the Modern Apprenticeship Scheme has much in common with Industry Training, the issues of female participation in Modern Apprenticeships raise slightly different issues, primarily related to the policy parameters of the Scheme. We have therefore analysed Modern Apprenticeships separately.

What are Modern Apprenticeships?

Following a pilot programme in 2000, the Modern Apprenticeships scheme was formalised in 2001²⁷ to encourage young people (16-21 years) to take up and complete apprenticeship training that offers them a good start to a career. There are currently 30 industries involved in the scheme. ITOs and individual contractors act as co-ordinators and take on mentor roles to support trainees throughout their apprenticeship. Apprentices have a far greater role in deciding whether and where to participate in training than their counterparts in Industry Training.

Female Participation in Modern Apprenticeships

The Modern Apprenticeship Scheme has grown rapidly since its inception, from a total of 2049 apprentices in December 2001 to 6,259 in December 2003. In the same period, the number of female apprentices grew from 128 to 425.

As with Industry Training, the majority of female apprentices are concentrated in a relatively small number of industries – the public sector, agriculture, horticulture, bakery and hospitality.

Table 8: Sectors with largest numbers and share of female Modern Apprentices

Industry	Number of female MAs			Percent of total female MAs		
	2001	2002	2003	2001	2002	2003
Public Sector	40	43	46	40%	17%	11%
Agriculture	21	40	59	21%	16%	14%
Horticulture	5	39	69	5%	15%	16%
Bakery	11	32	47	11%	13%	11%
Hospitality	7	20	59	7%	8%	14%
<i>All other industries</i>	<i>44</i>	<i>81</i>	<i>145</i>	<i>44%</i>	<i>32%</i>	<i>34%</i>

Women are the minority of apprentices in all but 2 industries – Tourism and the Public Sector. Of the 30 industries, 16 had less than 5 female apprentices, and 5 of these had none.

Overall female Modern Apprenticeships increased by 67% between 30 December 2002 and 30 December 2003. However, increases in women's participation rates only just exceed those of men, with women's share of total apprenticeships growing from 6.2% in 2001 to 6.8% in 2003

Most of this growth in female apprentices has come from hospitality, horticulture, agriculture and bakery although the recent inclusion of Retail (beginning in late

²⁷ By the Modern Apprenticeship Training Act 2001

2002) and Tourism (beginning mid 2001) in the Scheme has also made a significant contribution:

Table 9: Growth in Modern Apprentices, December 2001-3

Industry	Absolute growth	Share of total 2001-03 growth
Agriculture	38	12.8%
Bakery	36	12.1%
Electricity Supply	11	3.7%
Food Processing	10	3.4%
Horticulture	64	21.6%
Hospitality	52	17.5%
Motor	10	3.4%
Printing	6	2%
Public Sector	6	2%
Retail	22	7.4%
Tourism	28	9.4%
TOTAL GROWTH	297	

One possible cause of lower female participation in Modern Apprenticeships may be choice – i.e. young women may simply prefer provider-based education and training. It is difficult to prove or disprove this hypothesis, although it would be unfortunate if this were the case. Workplace-based training has a number of advantages over provider-based education, including lower overall costs, less need for a Student Loan, and lower opportunity costs.

However, a key factor to consider in explaining the lack of women’s participation to Modern Apprenticeships is the limited range of industries that have been included in the programme. Several industries with high female participation are not included in the Modern Apprenticeship programme. These include hairdressing (93%)²⁸, community support services (93%), building service contractors (62%), social services (Te Kaiawhina Ahumahi) (76%), and sport, fitness and recreation (51%). Together these industries contribute just over 10% of all industry trainees. Although the demographic of 16-21 year olds in these industries may differ from the overall industry demographic, it is not unreasonable to assume that the inclusion of these industries in the Scheme would increase the number of female Modern Apprentices. Indeed, it would appear that it is the inclusion of these sorts of industries that has led the English Modern Apprenticeship Scheme to enjoy far higher participation by young women than its New Zealand equivalent.

²⁸ The percentages are the percentage of female trainees in the ITO as at December 2002.

Table 10: 16-19 year olds on Learning and Skills Council-funded Work Based Learning, December 2003 (thousands)²⁹

Area of learning	Male apprentices	Female apprentices	Total
Health, Social Care and Public Services	6.7	49.6	56.3
Business Administration, Management and Professional	16.9	46.5	63.3
Retailing, Customer Service and Transportation	30.0	44.1	74.0
Hairdressing and Beauty Therapy	2.1	30.8	32.8
Hospitality, Sports, Leisure and Travel	25.7	26.2	51.9
Not Known	38.9	24.0	62.9
Land-based provision	4.8	4.1	8.9
Information & Communications Technology	13.3	2.9	16.2
Engineering, Technology and Manufacturing	89.8	2.8	92.6
Construction	50.3	0.4	50.7
Science and Mathematics	0.3	0.2	0.5
Visual and Performing Arts and Media	1.3	0.2	1.5
TOTAL	280.1	231.8	511.6

Some ITOs suggest that the constraint on Modern Apprenticeship places disproportionately limits the expansion of female numbers. In addition, some of the proactive measures from male dominated industries, such as expansion of qualifications into female areas of an industry, may not be progressed due to lack of places available.

Access problems are further compounded by the fact that funding for Modern Apprenticeship places is capped and the demand outweighs the funding available to supply apprenticeships. In a previous piece of research, the ITF estimated demand for Modern Apprenticeships in the 2003 to 2004 fiscal year to be 1,000 Modern Apprentices a quarter compared to a relatively stagnant supply³⁰. Thus the possibilities for expansion of the supply of bachelor's degrees are far greater than the supply of Modern Apprentices.

²⁹ Source: English Department for Education and Skills, www.dfes.gov.uk

³⁰ It should be noted that in late 2003 Minister Maharey brought some Modern Apprenticeship funding forward in response to the clear demand constraints.

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ITO	2000		2001		2002		2003	
	# of female trainees	% of all women in training	#	% of all women in training	#	% of all women in training	#	% of all women in training
Agriculture	731	5.6	1027	7.1	1252	6.5	1190	5.6
Ambulance	485	3.7	386	2.7	488	2.5	539	2.5
Apparel and Textile	371	2.9	444	3.1	486	2.5	570	2.7
Aviation	279	2.2	282	1.9	1037	5.4	1192	5.6
Boating	3	0	8	0.1	5	0	3	0
Building	11	0.1	12	0.1	12	0.1	18	0.1
Building Service Contractors	340	2.6	239	1.6	210	1.1	176	0.8
Community Support	1289	9.9	2354	16.2	2807	14.5	3692	17.3
Contracting	18	0.1	12	0.1	13	0.1	57	0.3
DCCITO	NA	0	2	0	21	0.1	0	0
Electricity Supply	118	0.2	160	1.1	160	0.8	161	0.8
Electrotechnology	710	5.5	1031	7.1	1274	6.6	1458	6.8
Engin., Food & Manuf.	968	7.5	1108	7.6	1222	6.3	1507	7.1
Equine	93	0.7	83	0.6	74	0.4	88	0.4
Extractives	39	0.3	31	0.2	47	0.2	66	0.3
Fire & Rescue	59	0.5	81	0.6	103	0.5	97	0.5
Flooring	10	0.1	11	0.1	13	0.1	8	0
Forestry	327	2.5	381	2.6	822	4.3	883	4.1
Furniture	22	0.8	28	0.2	40	0.2	50	0.2
Gas & Petrochemical	36	0.3	16	0.1	36	0.2	0	0
Hairdressing	1323	10.2	1248	8.6	1278	6.6	1372	6.4
Horticulture	181	1.4	202	1.4	248	1.3	275	1.3
Hospitality	889	6.9	1240	8.5	2279	11.8	2299	10.8
Joinery	3	0	2	0	3	0	21	0.1
Leather	29	0.2	26	0.2	20	0.1	6	0
Local Government	63	0.5	84	0.6	79	0.4	84	0.4
Meat Processing	107	0.8	168	1.2	NA	NA	NA	NA
Motor	34	0.3	39	0.3	37	0.2	82	0.4
NZITO	286	2.2	344	2.4	673	3.5	1210	5.7
Painting	27	0.2	13	0.1	20	0.1	21	0.1
Plastics	60	0.5	66	0.5	68	0.4	51	0.2
Pharmacy	NA	NA	NA	NA	NA	NA	69	0.3
Plumbing	5	0	3	0	4	0	3	0
Power Crane	2	0	5	0	8	0	10	0
Printing	41	0.3	60	0.4	59	0.3	56	0.3
Public Sector	11	0.1	150	1	370	1.9	683	3.2
Retail Meat	147	1.1	70	0.5	67	0.4	53	0.2
Retail Training	1101	8.5	727	5	775	4	715	3.4
Road Transport	310	2.4	228	1.6	335	1.7	265	1.2
Seafood	497	3.8	343	2.4	455	2.4	523	2.5
Sports, Fitness & Rec	1417	10.9	1004	6.9	1341	7	1316	6.2
Sports Turf	6	0.1	8	0.1	5	0	24	0.1

