

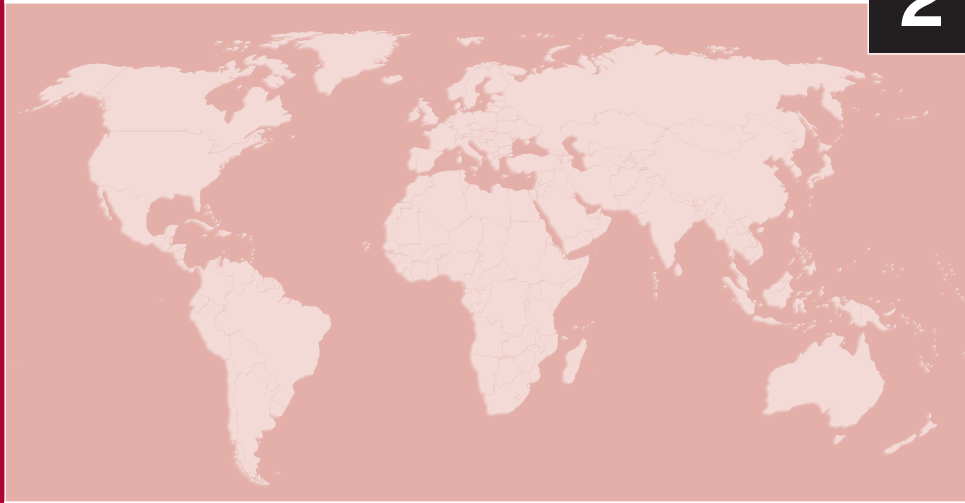


UNEVOC

INTERNATIONAL CENTRE
for Technical and Vocational
Education and Training

: Annotated Bibliography :

2



Women and Technical and Vocational Education and Training

An Annotated Bibliography of Research
and Related Literature (1998 - 2003)

UNEVOC

Annotated Bibliography: №2

**WOMEN AND TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING**

An Annotated Bibliography of Research and Related Literature
(1998 – 2003)

Edited and compiled by:

UNESCO-UNEVOC International Centre Publications

Gertrud Auf der Mauer, Astrid Hollander, Joann Hu Huifen, Karen Dawn Hunter, Stella Isenbügel, Melissa Kohonick, Natalia Matveeva, Jordan Wolfe

Table of Contents

FOREWORD	4
ACCESS & OPPORTUNITY	5
INFORMATION TECHNOLOGY	15
PROJECTS	22
STATISTICS, REPORTS & EVALUATIONS	27
TRAINING & EMPLOYMENT	34
TRENDS	38
APPENDIX: RESEARCH SOURCES	40

List of Annotated Bibliographies published to date:

1. Technical and Vocational Education and Training (TVET) for Sustainable Development
2. Women and Technical and Vocational Education and Training (TVET)
3. Youth Unemployment – Meeting the Needs of Youth
4. Exploitative Work – Child Labour
5. Occupational Health and Safety

For hard copies contact: order@unevoc.unesco.org.

New bibliographies can also be downloaded from the web at:
www.unevoc.unesco.org/publications

FOREWORD

One of the main functions of the UNESCO-UNEVOC International Centre is knowledge management and information sharing. Particular attention is given to promoting best practices and innovations in technical and vocational education and training (TVET) and education for the world of work, with special reference to meeting the needs of developing countries, countries in transition and countries in a post-conflict situation. The Centre also seeks to help bridge the gap that often exists between research, policy and practice in the area of education for the world of work.

To bring this function to fruition, the UNESCO-UNEVOC International Centre is in the process of developing an extensive publications programme in the form of an *International Encyclopaedia of Technical and Vocational Education and Training* (TVET). The following volumes are currently under preparation:

- International Handbook on TVET
- Book Series ‘Current Developments in TVET: Issues, Concerns and Prospects’
- Handbook on TVET Research
- National Profiles of TVET Systems
- International Journal of TVET
- Annotated Bibliographies of TVET.

The Annotated Bibliographies of TVET are a series of reviews of literature related to key issues of TVET that has been published within the last six years. The review published in this volume is part of this series of annotated bibliographies being published by the UNESCO-UNEVOC International Centre.

The information was obtained through an extensive Internet search of online journals, conferences, databases and archives. However, it must be noted that some sources relevant to the topic may not be included due to a lack of access and subscription to various journals and databases. Therefore, these literature reviews are not proposed to be an exhaustive collection of such works, but are meant to serve as a representative sample of the type of research taking place in the field of TVET, to aid others in their research.

These annotated bibliographies are part of an ongoing project in which the topics will be revisited from time to time to include newly published work; and additional topics will be added to the series over time.

It should be noted that descriptions of the publications featured are often quoted directly from the article’s abstract or associated website, and so are not the original work of those who have compiled these bibliographies.

For more information about the *UNESCO-UNEVOC International Encyclopaedia of TVET* contact: publications@unevoc.unesco.org

Rupert Maclean
Director

ACCESS & OPPORTUNITY

Addressing challenges on lifelong learning for girls

Sarr-Ceesay, Mariama

In: Youngs, Gillian; Ohsako, Toshio; Medel-Anonuevo, Carolyn (eds.), Creative and Inclusive Strategies for Lifelong Learning: Report of International Roundtable, 27-29 November, 2000

Hamburg: UNESCO Institute for Education (UIE), 2001, p. 91-107

<http://www.unesco.org/education/uiie/publications/uiestud29.shtml>

<http://www.unesco.org/education/uiie/pdf/lllirt.pdf> (full-text)

Description from website:

The Round Table was proposed within the framework of UIE's programme Cluster 1: "Learning Throughout Life in Different Cultural Contexts: From Laying Foundations to Strengthening Participation". It is also a follow-up to the "Global Dialogue 7: Building Learning Societies: Knowledge, Information and Human Development", held at EXPO 2000 (6-8 September 2000, Hanover, Germany). It will also constitute an exploratory stage in the formulation of a UIE-led and co-ordinated follow-up activity area to the World Education Forum (WEF, Dakar, April 2000).

Addressing women's ways of knowing to improve the technology education environment for all students

Zuga, Karen F.

In: Journal of Technology Education, Vol. 10, No. 1, Spring 1999

Charlottesville: Digital Library Archives – Virginia Polytechnic Institute and State University, 1999

<http://scholar.lib.vt.edu/ejournals/JTE/v10n2/zuga.html>

Description:

Even though women today have an increased opportunity to enroll in technology education programs, the vast majority still chose not to. Women perceive technology education as a male domain in which they do not belong and feel even more so after having taken a technology education course. The question of whether technology educators can address this lack of participation without first understanding the differences between men's and women's choice of studies is investigated using feminist analysis.

Challenges in access and participation of women in TVET

bin Haji Omar, Haji Abdul Ghani

Paper presented at the *One-Month Seminar-Workshop on Development of Women as an Emerging Labor Force*, SEAMEO VOCTECH Regional Centre for Vocational and Technical Education, May 4-29, 1999

Unpublished (?), 1999, 13 p.

http://www.voctech.org.bn/virtual_lib/Programme/Regular/Wid99/Plenary.pdf

Contents:

- Introduction
- Profile of Women in the Labor Force in South-East Asia
- Scenario of the 21st Century That Creates Challenges of the VTET for Girls and Women
- Increasing participation of girls
- Removing the gender bias in the Vocational and Technical Education from the education, planning, parents, society and employers
- Ensuring positive facilitation of both wage and self-employment for girls
- "Glass Ceilings" of women in VTET
- Gender-sensitive planning, gender-inclusive curricula and gender neutral educational and vocational guidance and counseling services for girls and their parents
- Periodic upgrading of syllabi and instructional materials
- Creating a gender sensitive support structure for working women
- SEAMEO Perspectives and Strategies
- SEAMEO VOCTECH's Experience
- Concluding Statement

Choice, participation, outcomes: Women in VET 2003: Consultation report

Prepared by Quay Connection for the Australian National Training Authority, 2003
Brisbane & Melbourne: Australian National Training Authority, 2003, 72 p.
<http://www.anta.gov.au/publication.asp?qsID=460>
http://www.anta.gov.au/images/publications/WIV_Consultation_report.pdf (full-text)

Description from website:

This report draws together the research and consultation undertaken between April 2002 and February 2003 to inform the process to refine the National Women's Vocational Education and Training Strategy (1996 - 2000).

Choices and barriers: Factors influencing women's choice of higher education in science, engineering and technology

Callaghan, Margaret; Siann, Gerda

In: Journal of Further and Higher Education, Vol. 25, No. 1, February 1, 2001

London: Taylor and Francis Group/Carfax Publishing, 2001

<http://taylorandfrancis.metapress.com/app/home/contribution.asp?wasp=d62lyglqvldtfeg2dr2p&referrer=parent&backto=searcharticlesresults,14,30>

Description from website:

This article is concerned with the under-representation of women on science and engineering and technical (SET) courses in higher education in Britain and the underlying reasons for this. The first section critically examines a 'barrier' model which focuses on factors which may impede and or discourage women from entering the field reviewing potential barriers such as-SET education in schools, the nature of scientific enquiry, the masculine occupational culture of SET, the image of scientists and lack of role models and networks. The second section briefly presents an alternative model which focuses on the extent to which such under-representation reflects a tendency for women to make positive choices of alternative occupational fields. It is concluded that rather than focusing on a barrier model in which women are seen in a relatively passive role, more consideration should be given to the extent to which women's career decisions arise out of positive choices.

Converse and company

<http://www.converse.com.au/>

Description:

The online newspaper of Women in Adult and Vocational Education (WAVE) – an Australian feminist network. WAVE addresses such issues as national policy development and resource allocation in post compulsory education.

Cross-gender interaction in technology education: A survey

Haynie, III, W.J.

In: Journal of Technology Education – Vol. 10, No. 2, Spring 1999

Charlottesville: Digital Library Archives – Virginia Polytechnic Institute and State University, 1999

<http://scholar.lib.vt.edu/ejournals/JTE/v10n2/haynie.html>

Description:

This article speaks broadly about the general trends of female enrollment and involvement with technology education over the last half century. Following this is an investigation into the dynamics, perceptions and interactions of male and female students enrolled in technology education.

Equal opportunity in vocational and technical education: A promise still owed to the nation's young women

National Women's Law Center

Washington, D.C.: National Women's Law Center, 2002, 10 p.

<http://www.eduref.org/plweb->

[cgi/fastweb?getdoc+eduref+ericdb+1119717+0+wAAA+%28Equal%26opportunity%26vocational%26technical%26education%29](http://www.eduref.org/plweb-cgi/fastweb?getdoc+eduref+ericdb+1119717+0+wAAA+%28Equal%26opportunity%26vocational%26technical%26education%29)

<http://www.nwlc.org/pdf/TitleIXCareerEducationReport.pdf> (full-text)

Description from website:

The extent of sex segregation in vocational and technical education (VTE) in U.S. high schools nearly 30 years after passage of Title IX of the Education Amendments of 1972 was examined in a national study. The key findings were as follows: (1) sex segregation is pervasive in high school-level VTE nationwide; (2) sex segregation results in substantial disparities in the wages earned by female and male graduates of VTE; (3) sex segregation in VTE results in inferior educational opportunities for women and girls enrolled in "traditionally female" programs; (4) sex segregation in VTE results from discrimination in violation of Title IX; and (5) the scope of the sex segregation in VTE education has been largely ignored in the 30 years since Title IX was enacted. The following were among the 6 recommendations emerging from the study: (1) the U.S. Department of Education's Office for Civil Rights should undertake compliance reviews of high school-level VTE programs; (2) all states should have an official responsible for investigating and remedying barriers to equal educational opportunity; (3) states should adopt compliance programs to prevent, identify, and remedy sex discrimination in VTE; and (4) the business community should exercise leadership, in partnership with schools, to promote non-traditional training for women.

Equity in career and technical education

Wonacott, Michael E.

In: Myths and Realities, no, 20, 2002

ERIC Clearinghouse on Adult, Career, and Vocational Education, 2002

<http://www.cete.org/acve/docs/mr00035.pdf>

Description from website:

The 30th anniversary of the enactment of Title IX of the Education Amendments of 1972 seems an appropriate point to review the issue of equity in career and technical education (CTE). Title IX, which required all educational programs receiving federal financial assistance to provide equal opportunities to women and girls, reflected the belief that females could enjoy the same educational opportunities as males if compliance with strict equity requirements were mandated and enforced. But the question arises, Has the belief been realized in education, specifically in CTE? Is equal opportunity for females in CTE a myth or a reality?

European Parliament legislative resolution on the Council common position for adopting a European Parliament and Council directive amending Council Directive 76/207/EEC on the implementation of the principle of equal treatment for men and women as regards access to employment, vocational training and promotion, and working conditions

The European Parliament

In: Official Journal of the European Communities, C 112E, pp. 169-174, 2002

Luxembourg: EUR-OP, 2002

ISSN 0378-6986

http://libserver.cedefop.eu.int/F/NLIE78N3JASMTLCG3PYGO7I3VPCYHADMLMFDTO1S7IN11F72K2-04766?func=full-set-set&set_number=002362&set_entry=000017&format=999

Description from website:

This legislative resolution of the European Parliament refers to the principal of equal treatment for male and female employees, with respect to their vocational training and working conditions.

The experience of students in a gender minority on courses at a college of higher and further education

Thurtle, Val; Hammond, Shaun; Jennings, Paul

In: Journal of Vocational Education and Training, Vol. 50, No. 4, 1998

Wallingford: Triangle Journals, 1998

<http://www.triangle.co.uk/vae/index.htm>

<http://www.triangle.co.uk/pdf/viewpdf.asp?j=vae&vol=50&issue=4&year=1998&article=thurtle&id=212.202.131.67>

Excerpt from abstract:

This paper reports on a study exploring the experience of students in a gender minority on programmes in a mixed economy college, identifying parallels between the male and female minority experience. A qualitative methodology was used interviewing males on programmes concerned with children under 8 years old and females on motor Vehicle Engineering programmes. Students reported that classroom practice was generally satisfactory, but there were some difficulties in workshops and with practical experience. Students did not identify gender as a significant issue, but highlighted intimidatory behaviour and gender stereotypes as

barriers preventing full participation in the classroom. Same gender tutors were not seen as significant, but educational strategies to develop increased integration and contact between all students might be beneficial.

Failing to feminise education: How factors behind the gender gap can vary

Cammish, N.K. (online) [1998]

id21

<http://www.id21.org/zinter/id21zinter.exe?a=0&i=4aDF5&u=410e102d>

Description from website:

What factors affect female participation in education? Are uneven patterns of enrolment that favour boys over girls in certain countries repeated everywhere, or can they differ? Researchers from the Universities of Hull and Oxford examined social, economic, religious and other factors that influence the involvement of girls in formal educational institutions in Bangladesh, Cameroon, India, Jamaica, Sierra Leone, Vanuatu and the Seychelles. The study commends future steps that could boost levels of female participation in countries where it now lags behind.

The study report identifies factors that can affect female participation in education. Although analysed one by one, they are interlinked and can combine to affect school enrolment among girls for good or ill. Certain basic disadvantages such as remote rural locations, or high levels of poverty in the community, proved to have universally negative impacts and power to over-ride more optional or cultural factors. It was clear that all nine factors flagged in the study can have both direct and indirect impacts.

Gender based learning dilemmas in work organizations

Abrahamsson, Lena

In: 2nd International conference on researching work and learning: proceedings, p. 106-113, International Conference on Researching Work and Learning: 2nd, University of Calgary, Faculty of Continuing Education, Canada, 2001

Calgary: Faculty of Continuing Education, University of Calgary, 2001

ISBN 0 889 53250 8

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=40525307>

Description from website:

This paper looks at the implications of gender based organisational patterns on both organisational learning and the learning of individuals within organisations. It takes as its basis a study of organisational changes in the pulp and paper industry, the electronics industry, the food industry and the laundry industry. The author concludes that the concept of the learning organisation challenges the gender order which is built on segregation and hierarchy.

Gender, education and training: An international perspective

Leach, Fiona

In: Sweetman, Caroline (ed.), Gender, education, and training, 1998

Oxford: Oxfam GB, 1998, p. 9-18

ISBN 0 855 98400 7

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=22643061>

Description from website:

The level of participation in formal education continues to remain lower for women than for men and this article examines a number of reasons for the persistence of this gender gap. The author also investigates the low impact of formal education on the status of women in society and suggests that formal education institutions and non-formal programs of adult education and training can help to eliminate this inequality.

Gender in Technical and Vocational Education and Training (TVET)

Wiram – Gender Sourcebook (online)

http://www.wiram.de/gendersourcebook/cooperation/cooperation_TVET.html

Description from website:

Even in countries where gender equality is formally achieved, there frequently remain disparities between women and men with regard to employment and career opportunities. Women often do not have access to

certain sectors or fields of occupation. This discrimination against women has consequences not only for the women themselves, but the underutilisation of existing potentials results in a loss for the economy and the society as a whole. Therefore, one of the responsibilities of TVET is to contribute to unfold the potentials also of women for the benefit of the economic and social development

Gender in technical and vocational education and training: A study of the situation of young women studying non-traditional skills in Cambodia

Gender and Development for Cambodia research and documentation team

Phnom Penh: Gender and Development for Cambodia, 2002

<http://www.bigpond.com.kh/users/gad/research/tvet.htm>

Excerpt from conclusion:

As this small study shows, discrimination still has a major effect on young women's lives and the decisions they can take. Within Cambodian society, the gender gap is still too wide for many young women to dare to leap across. The gap exists between roles, rights, power and decision-making and causes many young girls to lose confidence in themselves, to lose their self-esteem. Without self-confidence, they quickly lose faith in the ability to study also. This confidence can be restored when young women realize that they do have capacity, that they can "do".

Gender issues in technical training and vocational education programs

Howden, Sarah; Fawcett, Caroline

Washington D.C.:Inter-American Development Bank, 1998

<http://www.iadb.org/sds/doc/913eng.pdf>

Excerpt from executive summary:

Although women's labour force participation rates have risen dramatically in Latin America and the Caribbean over the past decade, it is not as high as would be expected by their educational and demographic characteristics. In addition, women in the labour force face a situation of pay inequity, occupational segregation and gender discrimination. Cultural stereotypes a propos appropriate occupations for women continue to affect firms' recruiting and promotion practices.

Implementing a project-based technology program for high school women

Boudria, Theodore J.

In: Community College Journal of Research and Practice , Vol. 26 , No. 9 , October-November 2002, p. 709-722

London: Taylor & Francis, 2002

ISSN 1066-8926 (Print)

ISSN 1521-0413 (Online)

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=44172310>

Description from website:

Tech Prep Consortium at Bristol Community College is at the forefront of collaborative education initiatives with its development and implementation of a Women in Technology (WIT) project-based learning program in high tech manufacturing. A Special Populations Grant in 1996 encouraged interested educational institutions to develop a program that would address the need to get high school students involved in careers in which one gender was under-represented. Bristol Community College's Tech Prep program responded and was awarded the funding necessary to implement a series of activities to address the need for young women to get involved in the various fields of engineering and technology. Crucial to the WIT program's success was the establishment of strong partnerships with industry, government and education. In 1997, the Bristol Community College Tech Prep program implemented its first WIT project-based experience at Texas Instruments Incorporated (TI) in Attleboro, Massachusetts for 12 students. At TI, students have acted as junior engineers as they developed designs and devices that addressed real-world engineering problems. Every year since, the program has grown significantly and has had a positive effect on the lives of over 200 students. The WIT program clearly demonstrates that integration of academic disciplines within a combined content and contextual framework can foster widespread success for students, schools, industry, and communities.

Inclusive competency standards in training packages: A review of policies, support resources and development issues

Courtenay, Marianne (& Associates); Mawer, Giselle (& Associates)

Darlinghurst: TAFE NSW
<http://www.tafensw.edu.au/publications/gendequi/inccont.htm>

Excerpt from project brief:

In 1997 ANTA and the MCEETYA VEET Women's Taskforce commissioned a research project under the standards and curriculum component of the National Women's VET Strategy. This was one of a number of projects covering all aspects of the Strategy. The brief of this project was to identify critical factors in standards development and training provision which can improve women's access to and successful participation in vocational education and training. The factors were to be considered in the context of the Australian Recognition Framework and new training arrangements. The project's national reference group adopted Packaging Training for Gender Equity as a working title.

The project's research addressed areas of critical importance in new training arrangements designed to improve relevance and responsiveness. Competency standards are the linch-pins of Training Packages and their quality will have a major effect on all other package components. Similarly, the capacity of vocational education and training provision to cater for the full diversity of its clientele, including women, will be a major determiner of the ultimate success of the new National Training Framework arrangements.

The institutionalization of gender and its impact on educational policy

Stromquist N. P.

In: Comparative Education, Vol. 34, No. 1, March 1, 1998, p. 85-100

Chicago: The University of Chicago Press, Journal Division, 1998

ISSN 0305-0068

http://www.ingenta.com/isis/searching/ExpandSearch/ingenta.jsessionid=4w2n8wvk7a86t.circus?title=The+institutionalization+of+gender&title_type=tka&year_from=1997&year_to=2004&database=1&pageStart=21&index=34

Description from website:

To incorporate gender issues into public policy, most nations have established women in development (WID) units in their governmental bureaucracies at some point in the last 20 years. An examination of 48 WID units in developing countries indicates that in most cases these multisectoral organizations consider education among their activities. Within education the focus is more on non-formal education for adult women than on formal education. By concentrating on literacy programs combined with income generation, health and nutrition activities or on vocational education, WID units implicitly subscribe to a definition of gender issues as those concerning mostly poor women. It is argued that limited contestation by these units of the ideological function of schooling, revealed in the scarce attention given to teacher training and curriculum/textbook revision-added to their limited funding and infrequent contact with feminist non-governmental organizations (NGOs)-makes these WID units relatively ineffectual in altering the reproductive functions of the formal educational system.

Lifelong learning and gender: An old problem in a new context?

Brause, Katja; Mayer, Christine

In: Harney, Klaus; et al. (eds.), Lifelong learning: one focus, different systems, 2002, p. 73-85

Frankfurt am Main: Peter Lang, 2002

ISBN 3 631 37705 3

ISBN 0 820 45393 5 (USA)

ISSN 0177-378X

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=43115938>

Description from website:

The focus of this chapter is on the importance of gender for lifelong learning. It begins by looking at conceptual changes of lifelong learning in the framework of national and international debates and then goes on to explore the educational participation and occupational sequence of women in Germany. The biographies and life courses of women and men in Germany and their implications for the concept of lifelong learning are then discussed, followed by a closer look at the occupational situation and participation of women. The authors conclude that if the educational aim is to make the concept of lifelong learning a reality for all citizens, then the predominantly economic interpretation of the concept needs to be abandoned in favour of learning situations, learning environments and forms of knowledge that focus on the less marketable side of life.

Nontraditional employment and training (Trends and Issues Alert)

Kerka, Sandra (2001) [online]

ERIC Clearinghouse on Adult, Career, and Vocational Education, No. 30, 2 p.

<http://www.cete.org/acve/docs/tia00098.pdf>

Description from website:

The Perkins Act and the Workforce Investment Act (WIA) brought major changes to the arena of nontraditional employment and training (Gender Equity 1999; WIA and Perkins 2001). Perkins eliminated set-asides for displaced homemakers, single parents, and single pregnant women, but mandated increased enrollment in high-wage nontraditional training. With the WIA, the Nontraditional Employment for Women Act was repealed, but some WIA provisions require a focus on nontraditional occupations (NTOs). Programs aimed at strengthening the self-sufficiency of female welfare recipients are also emphasizing NTOs, which tend to offer higher wages than female-dominated occupations (Nontraditional Employment for Women 2001; NOW 1999).

N.Y.C. vocational programs shortchange girls, women's group says

Gehring, John

N.Y. Times, September 5, 2001

<http://www.edweek.org/ew/newstory.cfm?slug=01bias.h21>

Excerpt from publication:

The New York City board of education operates a "separate and unequal" system of vocational education that offers girls training inferior to that of boys, the National Women's Law Centre has charged in a letter sent to the city's schools chancellor.

The Washington-based advocacy group for women's legal rights contends that the nation's largest school system has failed to offer female students the same career education possibilities it gives their male peers.

The participation of female immigrants in vocational training

Eckstein, Zvi; Cohen, Sarit

Tel Aviv University, 2002, 26 p.

<http://www.tau.ac.il/~eckstein/pdf/sapir2.pdf>

Excerpt from abstract:

This paper studies the transition of female immigrants from the former Soviet Union to the Israeli labor market and their participation in government-sponsored training programs. To study the determinants of the duration to training we estimate a Cox proportional hazard model. We find that higher education leads to a significantly shorter duration to training whereas immigrants who were older at arrival have a longer duration to training. We formulate a life-cycle model for the integrated labor supply and participation in training decisions. According to the model, the investment in human capital is endogenous and takes two forms: accumulating occupation-specific work experience through an active participation in the Israeli labor market and participating in a government sponsored classroom training, during which, the immigrant is not allowed to work. Simulating the model under the assumption that training administrators allow free entry to training programs, we are able to generate the observed peak, in the participation in training during the third and fourth quarter after arrival, and a moderate decline in the participation rate after one year of residency in Israel.

Policy recommendations for Perkins Act reauthorization

Tradeswomen Now and Tomorrow

Chicago: Tradeswomen Now and Tomorrow, 2002

<http://www.tradeswomennow.org/publications/Perkins.pdf>

Description:

Even in the wake of the Perkins act there still remains blatant gender segregation among the trades. Most often women are predominant in crafts, such as cosmetology and health care assistance, which pay substantially less than trades which are typically male-dominated such as carpentry and plumbing. This article goes on to list a series of policy recommendations that would promote gender equality in trade schools and the labour market.

Promoting equal access of girls/women to technical and vocational education

Bhopal: Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE)

<http://www.unevoc.unesco.org/congress/pdf/ref-ind-e.pdf>

Excerpt from publication:

UNESCO's policy to promote the equal access of girls and women to technical and vocational education is based on the Organization's normative instruments: the Revised Recommendation concerning Technical and Vocational Education (1974) and the Convention on Technical and Vocational Education (1989). As these instruments indicate, the continued persistence of inequality in this field calls for specific action in respect of girls and women taking into account their particular needs and the obstacles to be overcome.

Excerpt from Summary:

Some of the major challenges that we face in the 21st century with regard to ensuring equal access of girls and women to TVE are:

- Increasing the participation of girls' especially rural girls in TVE, removing the gender bias in TVE from educational planning, parents, society and employers. Besides, facilitating employment for girls is also a major challenge.
- In order to be able to meet these challenges, it is imperative that specific strategies are adopted keeping in view the cultural, geographical and ecological variations as also problems relating to poverty and ignorance. Some of the proposed strategies are:
- Decentralised and non-respective educational planning, expanded programme of non formal, low-tech vocational training for rural girls, gender sensitive planning, gender inclusive curriculum and gender exclusive educational and vocational guidance and counselling services for girls and their parents, periodic upgradation of syllabi and instructional materials and creation of gender sensitive support structure for working women.

Who participates in training

Centre for Training Policy Studies, University of Sheffield

Sheffield: Centre for Training Policy Studies, 2002

http://libserver.cedefop.eu.int/vetelib/eu/pub/commission/dgeac/2002_0014_en.doc

Excerpt from publication:

In 1993 the then 12 Member States of the European Union, 28 percent of all employees in the sectors and sizes of enterprises covered by the Continuing Vocational Training Survey (CVTS) participated in training courses in 1993. The difference between men and women was small. The differences between occupation groups were much larger. The CVTS therefore supports the evidence from other surveys which show that those who have the highest initial qualification and who are therefore more likely to occupy the more senior posts also have the most continuing training throughout their working lives.

Who's doing the hunting and gathering? An exploration of gender segmentation in adult learning in small and remote Australian communities

Golding, Barry

Paper prepared for *The Changing Face of VET: Reflection, Regulation and Re-engineering*, Australian Vocational Education and Training Research Association Conference, Sydney, 10-11 April 2003

http://www.avetra.org.au/abstracts_and_papers_2003/refereed/Golding.pdf

Excerpt from abstract:

Adults in Australia have tended to return relatively recently to learning in patterns that are significantly different by gender. These patterns of gender segmentation for adults are particularly noticeable in the findings of recent research by the author into adult, community and vocational learning in small and remote towns in Victoria. The issues associated with such patterns form the basis of this exploratory paper.

Women and men in Swiss vocational education

Borkowsky, Anna

In: Gonon, Philipp; et al. (eds.), *Gender perspectives on vocational education: historical, cultural and policy aspects*, Gender Perspectives on Vocational Education, Aarau, Switzerland, 19-21 August, 1999

Bern: Peter Lang, 2001, p. 19-34

ISBN 3 906 76387 0

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=37106313>

Description from website:

This paper was presented at the conference, 'Gender perspectives on vocational education', held in Aarau, Switzerland from 19-21 August, 1999. The main focus of the conference was on gender aspects in vocational education, particularly health care education, and further education. In this paper, the author describes the basic features of the Swiss vocational education and training system in relation to education as a whole. Vocational education in Switzerland is regulated by an act of parliament and statutes for individual trades, issued by the central government. The majority of young people achieve their upper secondary education through the dual system of apprenticeship leading to a well-defined occupation or profession which is recognised by both employers and society as a whole. The system of occupations displays a significant degree of gender segregation despite its highly developed nature and the apparent similarity of qualifications. The author argues that the organising principles of vocational education and the work-based element of the apprenticeships provide barriers to the development of gender equality.

Women and non-traditional work fact sheet

Wider Opportunities for Women

Washington, D.C.: Wider Opportunities for Women, 1998

http://www.work4women.org/resource/resourcepubdetails.cfm?PUB_ID=136

Description from website:

Statistics about women in non-traditional occupations, barriers and benefits.

Women and technical professions

European Commission, Directorate General for Education and Culture

Brussels: European Commission, 2002, 15 p.

http://europa.eu.int/comm/dgs/education_culture/publ/pdf/leo1/en.pdf

Excerpt from introduction:

Access of women to the technical professions is still very restricted. While equality between men and women in access to vocational training is enshrined in community texts, the fact remains that scientific and technical careers are still a male preserve.

Women on site: Gender equity and diversity in VET

Howes, Jenny; Pyke, Jo; Leahy, Mary; Wragg, Cheryl

In: Dept of Education, Training and Employment. South Australia. Dept of Education, Training and Employment (ed.), *Making choices, making waves: critical issues for women and girls in the VET sector: conference papers*, Making Choices, Making Waves: Critical Issues for Women and Girls in the VET Sector, Adelaide, South Australia, 18-19 May 2000

Adelaide: Dept of Education, Training and Employment, 2000, p. 26-33

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=32970714>

Description from website:

This paper aims to explore approaches to access and equity within a changing policy context and the capacity of stakeholders to respond to issues such as female participation in male-dominated industries. The authors consider the implications of the focus on diversity, identify the characteristics of successful initiatives and briefly describe some new programs.

Workforce preparation in a global context: Occasional papers 8

Lasonen, Johanna

Jyvaskyla: Institute for Educational Research, Jyvaskyla University, 1999

Springfield: ERIC Document Reproduction Service, 1999

ISSN 1456-5153

<http://www.celcee.edu/abstracts/c20011860.html>

Description from website:

This document contains 21 papers and an introduction on work force preparation in a global context. The following papers are included: "Introduction" (Johanna Lasonen); "Access of Girls and Women to Vocational Education: Implications for the Workplace in Swaziland" (Comfort B. S. Mndebele); "Intersectoral

Approaches to Literacy and Vocational Education and Training: The Case of the Sudan" (Sidiga A. Rahim Washi); "Women's Education in the Sudan" (Sidiga A. Rahim Washi); "Research Development and Challenges of the 21st Century for Vocational Education and Training: Canadian Experience" (Marcelle Hardy); "The Business Incubation Concept: Global Possibilities for Vocational-Technical Education" (Victor M. Hernandez-Gantes); "Implementing Education and Training Policies in the United States: A Case Study" (Curtis R. Finch); "A Study on the Development of Further Extensions in Vocational Education and Training in Taiwan, ROC (Republic of China)" (Ming-chung Chiang, Dar-chin Rau); "Networking between Business and Educational Institutes in Taiwan, ROC" (Dar-chin Rau, T. T. Hwang); "Knowledge-Based Cooperation in Vocational Education, University and Industry in Australia" (Matt Ngui); "Strategies for Promoting Parity of Esteem between Vocational and Academic Education" (Johanna Lasonen); "Qualifications with a Dual Orientation towards Employment and Higher Education--Innovative Schemes in Seven European Countries" (Sabine Manning); "'Bildung' through Vocational Education" (Matti Vesa Volanen); "Shaping the Work Life--A Future Oriented Way of Lifelong Learning" (Gerald Heidegger); "Towards Understanding the Development of an Entrepreneurial Leadership-Identity among Finnish Female Entrepreneurs" (Leena Avotie, Eija Pehu); "Enterprises as Environments for Workplace Learning and Training" (Johanna Lasonen); "Review and Preview of Higher Vocational Education: Changes in Hong Kong and International Trends" (Bradford W. Imrie); "A Comparison of Occupational Programs in Comprehensive High Schools in the USA, Japan, and Taiwan" (Lung-Sheng Lee); "Challenges of the 21st Century for Technical-Vocational Education and Training from Global, Regional, and National Perspectives" (C. K. Basu); "Human Resource Development and Labour Market Policy Issues in the Asia Pacific: Opportunities for Collaborative Research with Europe" (Matt Ngui); "Vocational Education and Training Projects in Developing Countries: Issues of Quality and Sustainability" (Dennis R. Herschbach); and "New Roles for Vocational Education and Training" (Armoogum Parsuramen). Each paper contains references.

Youth workforce preparation: Gender inequity

Carroll, Jan (2003) [online]

Colorado State University Cooperative Extension

<http://www.ext.colostate.edu/emptrans/feature0301.html>

Description from publication:

Gender is a socially constructed category. It both proscribes and constrains the life experiences, opportunities, access to resources, and power balance between women and men.

Men and women are socialized differently. They have different expectations about appropriate behavior and social roles, and they are held to different standards of behavior (Mead, 2001).

Gender affects girls during their education in preparation for the workforce and women's earnings in the workforce.

Barriers to the use by women of information and communication technologies for distance/open learning in the Solomon Islands

Commonwealth of Learning Symposium, *Pacific Region: Barriers to Access to Information Technologies Encountered by Women for the Purposes of Open/Distance Learning*, Lower Hutt, New Zealand, 7-11 May, 2001

Vancouver: Commonwealth of Learning, 2001, 13 p.

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=36630652>

Description from website:

The Commonwealth of Learning (COL), in collaboration with The Open Polytechnic in New Zealand (TOPNZ) as local host, organised a regional symposium to identify and examine the barriers encountered by women to the use of information and communications technologies (ICTs) for open and distance learning (ODL). This paper is written to identify the barriers that woman in the Solomon Islands face to the use of ICTs with regards to distance/open learning. It discusses four main areas: (i) the impact of information and communication technology on distance learning; (ii) woman's access to ICTs for educational purposes; (iii) training and capacity building; and (iv) public policy.

Disciplinary discourses: A case study of gender in information technology and design courses

Clegg, Sue

In: Gender and Education, Vol. 11, No. 1, March 1, 1999, p. 43-55

London: Taylor and Francis Group/Carfax Publishing, 1999

<http://taylorandfrancis.metapress.com/app/home/contribution.asp?wasp=chglquhwj6179tmhb7j&referrer=parent&backto=searcharticlesresults,22,24>;

Description from website:

The article considers the ways in which gender continues to influence the pattern of recruitment onto both information technology (IT) and design courses. Fewer women are attracted to product and industrial design, and there has been a decline in the proportion of women on IT courses. While there has been work that has looked at gender inequalities in single discipline areas, little work has looked across subjects. We propose a theoretical reformulation away from an equal opportunities approach which identifies women as the 'problem'. The article attempts to characterise the discourses of design and computing, and in particular, gendered notions of technology. We report on data from a small-scale case study in one higher education institution where new students were interviewed about their choices of course. These data provided rich descriptions of how both male and female students viewed both design and IT. There was a widespread commitment to individual creativity on the part of both women and men in design, while computing was not experienced in this way. On both courses it was clear that technical competency was still defined in highly gendered terms. In design the hammer and the workshop are still experienced by women as naturalised male tools and spaces. Computing space and skills are also gendered. Our interviews suggest that instrumental reasons for choosing courses are balanced by intrinsic satisfaction, but that pleasure was more to the fore in design. We conclude by arguing that both design and IT are gendered discourses, and that a case study approach can provide insights into the ways these discourses are perceived.

Gender differences in Information Technology (IT) attitudes, use and skills among students at the University of Hong Kong

Blurton, Craig

Center for the Advancement of University Teaching (CAUT)

<http://www.icce2001.org/cd/pdf/p14/CN020.pdf>

Description from website:

Much attention has been focused internationally on the question of gender differences in information technology attitudes, use, and skills among students. To answer the question of whether such gender differences exist among students at the HKU, the IT & Teaching Group of the Centre for the Advancement of University Teaching (CAUT) compared male and female students on the following dimensions:

- Enrollment in computer science and information technology curricula
- Self-reported IT skills and attitudes
- Taking the IT Proficiency Tests
- Scores on the IT Proficiency Tests

- Grades in “Foundations to Information Technology” courses

Male students elsewhere in the world appear to be more skillful, knowledgeable, and confident in information technology attitudes, use, and skills when compared to female peers. Our research has shown that these gender differences occur at the University of Hong Kong, too. However, we have also found that female students at HKU, given appropriate opportunities, are able to narrow this gender gap in IT. As the University moves towards increasing use of IT for teaching, learning, and scholarship, it will be important to monitor this situation to ensure that IT-use facilitates and does not hinder learning for any group of our students.

Gender, information technology, and developing countries: An AED study that explores obstacles and opportunities for women related to IT

Maguire, Mary

In: TechKnowLogia, November/December, 2001, p. 58-59

Vienna (Virginia): Knowledge Enterprises Inc., 2001

http://www.techknowlogia.org/TKL_Articles/PDF/351.pdf

Excerpt from publication:

In Burkina Faso, the government operates *boutiques d'information* – information stores – using information technology (IT) to deliver agricultural and marketing information to rural farmers, with a focus on the information needs of women. The goal is to provide a demand-driven service that not only provides information the women need, but also disseminates information they generate. These boutiques represent one of the few – but growing – success stories involving women and IT in developing countries. The study warns that the gender divide in Internet access is particularly acute in rural areas where women make up 60 percent of the population. “IT policy must be informed by a gender perspective in the early stages of technology diffusion,” said study co-author Nancy Taggart, a program officer with the AED Global Education Center.

Gender/technology relations: Complicating the gender binary

Stepulevage, Linda

In: Gender and Education, Vol. 13, No. 3, September 1, 2001, p. 325-338

London: Taylor and Francis Group/Carfax Publishing, 2001

<http://taylorandfrancis.metapress.com/app/home/contribution.asp?wasp=2fa1ymtqvgcuptpjhq06&referrer=parent&backto=searcharticlesresults.1.3;>

Description from website:

This article is concerned with gender and technology relations in education. More specifically, it focuses on assumptions made about girls' and young women's developing identity within the context of the computing and/or technology classroom in primary and secondary schools. The article argues that we must explore what is invisible yet taken for granted in social-constructionist analyses of gender-technology relations: that these relations are situated within heterosexual social norms. Research studies in computing and technology classrooms are considered in detail in order to explore questions concerned with girls' constructed 'incompetence'. The article concludes that there needs to be an analysis that considers the interrelationship between computing and gender and heterosexuality in the classroom to help broaden our understanding of how girls and women might develop knowledge and skills in locations that are gendered masculine.

The information age versus gender equity? Technology and values in education for library and information science

Hildenbrand, Suzanne

In: Library Trends, Vol. 47, No. 4, Spring 1999, p. 669-685

Urbana: The Publications Office, Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, 1999

ISSN 0024 2594

<http://www-personal.si.umich.edu/~rfrost/courses/Women+Tech/readings/Hildebrand.pdf>

Description from website:

The library profession proclaims itself to be a proponent of both the information age and equity for women and people of color. Yet certain features of the information age appear to be inhospitable to the goals of gender equity and there is a long history of gender stratification, with men favoured for top positions in the profession.

Information technology: Windows of opportunity for women

Price, Vivienne

Sydney?: Information Technology Industry Training Advisory Board, 1998, 55 p.

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=20205403>

Description from website:

This report considers the low rate of women's participation in the Information Technology industry. It makes four recommendations to encourage increased participation by women in Information Technology. Appendix one contains a detailed analysis of a survey of Year 11 and 12 students regarding Information Technology.

IT as a mediator for learning in a self-access Hong Kong VET context: Gender difference and motivation

Ng Poh Ean, Agnes

In: International Vocational Education and Training Association, Vol. 9, No. 2, Fall 2001

Knoxville: University of Tennessee, Department of Human Resource Development, 2001

<http://www.iveta.org/journals.htm>

No abstract available.

IT glass ceiling: Permanent barrier or temporary obstacle for women?

Weinstein, Bob [online]

Monster Technology Online

<http://technology.monster.com/articles/itglassceiling/>

Excerpt from publication:

Statistics can be daunting when taken as gospel. Women in the workforce, especially in IT, have their problems scaling the corporate ladder. According to Computerworld, women make up nearly 40 percent of the IT workforce, yet female chief information executives represent less than 5 percent of the total positions nationwide.

Sheri Anderson, senior vice president and formerly chief information officer (now general manager of Customer Services) of San Jose-based network software provider Novell Inc., neither disputes the accuracy of these statistics nor questions the existence of a glass ceiling. Still, she held Novell's top IT job, overseeing the company's worldwide information systems and proved the glass ceiling can be shattered.

While more women are joining IT ranks than in the past, relatively few are positioned at the top. What are they doing wrong and, most importantly, what can they do to change the situation?

Men's and women's attitudes toward computer technology: A comparison

Ray, Charles M; Sormunen, Carollee; Harris, Thomas, M.

In: Office Systems Research Journal, Vol. 17, No. 1, Spring 1999, 8 p.

Morehead: Organizational Systems Research Journal, 1999

<http://www.nyu.edu/education/alt/beprogram/osrajournal/raysormunenharris.PDF>

Excerpt from abstract:

This study examined three research questions that compared the attitudes of men and women about (1) the value of technology in making users more productive, (2) the impact of computer technology on people and their work environments, and (3) the relative comfort of men and women when using computers. The study used an attitudes inventory constructed to identify

attitudes associated with gender issues reflected in the literature. The inventory was administered to 62 subjects who were students in a university business communication course. Analyses of the findings indicate that, contrary to earlier studies on these issues, women reflected more positive attitudes than men on all three scales. Females held more positive attitudes than males regarding the value of computers to make users more productive. Although neither men nor women in this group reflected concern about the impact of technology on people and their work environments, women were more positive than men in this regard. Women also reflected greater comfort in using computers than men. The results carry implications for both education and business. Educators, trainers, and managers should reexamine their behaviors as they make decisions

regarding career choices, on-the-job training opportunities, and job placement. Previous indicators that men are more receptive to technology in learning and training environments appear to have changed.

Men's work, women's work: The social shaping of technology in academic libraries

Ricigliano, Lori; Houston, Renée

Paper prepared for the ACRL Eleventh National Conference, Charlotte, North Carolina, April 10-13, 2003
Chicago: American Library Association, 2003

http://www.ala.org/Content/NavigationMenu/ACRL/Events_and_Conferences/ricigliano.PDF

Excerpt from abstract:

Over the past thirty years, technology has become a dominant force in reshaping the nature of academic library work. Its impact has significantly changed role definitions, tasks, services, and organizational structures. While there are numerous studies on the effects of technology in libraries, little has been devoted to examining its social relations and dynamics. Social scientists contend that masculinity is central to the construction of technology and it has a different impact on women workers that it does on men. What, then, are the implications for academic libraries, where the workforce is predominately female? The authors attempt to address this question through a review of the literature in gender and technology, an examination of published data from the Association of Research Libraries (ARL), and a small pilot study of academic libraries in the Pacific North-west. Evidence suggests that the composition of academic libraries is changing and men are increasingly employed in technology-based positions, resulting in occupational segregation along gender lines.

New attitudes: Can Caribbean women meet demands for skilled labour?

Jayasinghe, Daphne (2002) [online]

ID21

<http://www.id21.org/society/s6cdj1g1.html>

Excerpt from publication:

How does the trend in the Caribbean towards skilled export manufacturing affect women? Can improved training help women benefit from the shift? What barriers prevent women from making the most of training opportunities? This piece aims to briefly explore the answers to these questions.

Seeking the geek girls: Exploring women's and girls' perceptions of information technology

Price, Vivienne; Woolley, Robyn

In: Australian Vocational Education and Training Research Association, *Quality and diversity in VET research: proceedings of the second national conference of the Australian Vocational Education and Training Research Association (AVETRA)*, Second National Conference of the Australian Vocational Education and Training Research Association (AVETRA): Quality and Diversity in VET Research, Royal Melbourne Institute of Technology, 11-12 February 1999

Sydney: Australian Vocational Education and Training Research Association, 1999, p. 283-286

ISBN 0 958 61882 8

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=25668981>

Description from website:

For many years the Australian Information Industry Association and the Information Technology (IT) Industry has been concerned about the ratio of women and men involved in this Industry. The development of the first training package - the IT Client Support Training Package made it possible to introduce an adaptation to the schools. In 1998 the Vocational Education and Training IT (Information Technology) course was introduced as a pilot program into 40 schools in New South Wales (NSW). The initial enrolment reflected a smaller proportion of female students (one third) to male students. In 1999 it is anticipated that there will be approximately 200 schools and approximately 2,000 students participating in this program. Concern was raised by the Information Technology Industry Training Advisory Board (ITITAB) that this ratio reflected the Information Technology Industry, i.e. there are significantly more men than women employed in the industry. The ITITAB is very aware of the shortage of women in the industry and commissioned a report in October 1998 to substantiate anecdotal information and consolidate research in this field.

Tech-savvy: Educating girls in the new computer age

American Association of University Women. Educational Foundation. Commission on Technology, Gender, and Teacher Education

Washington, DC: American Association of University Women Educational Foundation, 2000, 82 p

http://labordoc.ilo.org/cgi-bin/Pwebrecon.cgi?Search_Arg=Tech-savvy%3A+Educating+girls+in+the+new+computer+age&SL=None&Search_Code=TALL&PID=26688&S_EQ=20040803151721&CNT=30&HIST=1

Description from website:

Explores girls' attitudes to computers and computer technology and makes recommendations for improvements in girls' education in this area. Examines girls' reservations about the use of computers, investigates the concerns of teachers and considers the gender aspects of educational software, computer games and the teaching of computer science. Looks at the incidence of women in computer-related careers

Using ICT to improve the gender balance in engineering education

Alha, K; Gibson, I

In: European Journal of Engineering Education, Vol. 28, No. 2, June 2003, p. 215-224

London: Taylor and Francis Group, 2003

ISSN 0304-3797

http://www.ingenta.com/isis/searching/ExpandSearch/ingenta.jsessionid=4mal6gcbspl8l.circus?title=Using+ICT+to+improve+the+gender+balance&title_type=tka&year_from=1997&year_to=2004&database=1&pageStart=1&index=1

Description from website:

This paper summarizes the activities, contents and overall outcomes of an international seminar organized jointly by two working groups of SEFI: the Working Group on Women in Engineering and the Working Group on Information and Communication Technologies. The seminar theme was 'Improving the gender balance in engineering education using ICT methods and contents' and was hosted by Oulu Polytechnic, Finland, 16-17 May 2002. In regard to ICT methods and contents, it is clear that the trend away from traditional teaching methods and a concentration on narrow technical contents is being replaced by a more holistic pedagogy that involves extensive use of ICT to provide both content and context of the material being learned by the student. The intrinsic advantages of ICT-based teaching are that it permits comprehensive use of resource-based learning, provides flexibility in learning and facilitates wide support for individual communication and networking. These features are particularly attractive to women.

Women and ICTs for open and distance learning: Some experiences and strategies from the Commonwealth

Green, Lyndsay; Trevor-Deutsch, Lawry

Vancouver: The Commonwealth of Learning, 2002, 70 p.

<http://www.col.org/wdd/Women%20and%20ICTs.pdf>

Excerpt from introduction:

During the period from 1998 to 2001, The Commonwealth of Learning (COL) commissioned a series of research reports and held regional expert group meetings to address the barriers that women experience in using information and communications technologies (ICTs) for open and distance learning (ODL). The reports examined the situation in Commonwealth countries in four regions: Africa, Asia, the Caribbean and the South Pacific.

Women: Creating the connection: Women and information technology in the vocational education and training sector

Delaney, Bernadette; Dyson, Chloe

Melbourne: Victorian Office for Training and Tertiary Education, 1998

ISBN 0 731 30045 9

<http://www.otte.vic.gov.au/publications/twomen/pdfs/women.pdf>

Excerpt from executive summary:

This report outlines the findings of a research project commissioned by the Communications and Multi Media Unit of the Office of Training and Further Education (OTFE) in Victoria. The impetus for this research was a recognition of the major impact that information technology (IT) is having and will continue to have on teaching and management systems in the Vocational Education and Training sector (VET).

The main focus of this research on information technology in VET was to investigate the current and potential roles for women, to identify barriers which may inhibit women's level of involvement and to identify current models and practices which have enabled women to develop their skills. This research project was conducted between September and December, 1997.

Women and minorities in high-tech careers

Brown, Bettina Lankard

In: ERIC Digest, No. 226, 2001, 2 p.

ERIC Clearinghouse on Adult, Career, and Vocational Education, 2001

<http://www.cete.org/acve/docs/dig226.pdf>

Excerpt from publication:

Women and minorities are underrepresented in technology-related careers. Lack of access, level of math and science achievement, and emotional and social attitudes about computer capabilities may be some of the factors that cause women and minorities to avoid high-tech careers. According to the American Association of University Women, the number of women graduating in computer sciences and information technology is decreasing despite the increased need for workers in these areas (Friedman 2000). The Bureau of Labor Statistics reports that only 7.2 percent of all computer scientists are African American and 2.6 percent Hispanic (Bruno 1997). Because employment in today's workplace requires increasingly sophisticated technological skills, educators must find ways to recruit and retain all types of students in math, science, and technology (MST) courses. This Digest presents a number of ways that schools and teachers can attract women and minorities to high-tech careers and prepare them for work.

Women in ITEC courses and careers

Millar, Jane; Jagger, Nick

Dept for Education and Skills (DfES), Great Britain, 2001, 156 p.

http://www.womenandequalityunit.gov.uk/publications/women_itec_report.pdf

Excerpt from executive summary:

This report provides the first systematic review and analysis of the participation of women in information technology, electronics and communications (ITEC)-related courses and careers internationally. The research focuses on six countries: the United Kingdom (UK), the United States of America (USA), Canada, Ireland, Taiwan and Spain. It is based on empirical data, available literature and interviews with key players (ITEC experts, employer representatives, and members of industry specific professional bodies) in the six countries. The research provides a comprehensive analysis of the position of women in ITEC-related courses, compares and contrasts patterns in the participation of women in the UK with those in the other countries, and identifies lessons for education and employment policy and practices that could improve the situation for women in the UK. The findings indicate a disparity between the participation and position of men and women in ITEC-related courses and careers in all six countries. In addition, given the relative proportions of men and women in the graduate population and in the workforce, the gender gap is much wider than it should be.

Women learners in Vocational Education and Training (R017L): Literature review: Access and equity in online learning

Australian National Training Authority

Brisbane & Melbourne: Australian National Training Authority, 2001 (updated 2003), 16 p.

ISBN 1 920 90620 7

<http://www.flexiblelearning.net.au/accessequity/downloads/R017L.pdf>

Contents:

- Woman Learners in Vocational Education and Training (VET)
- Scope of the Literature Review
- Introduction
- Research Themes for Women Learners in VET
- Are women averse to computer technology?
- What gender differences has research identified in e-learning?
- Do competing responsibilities impact on women's ability to exploit the new technologies?
- What does research tell us about good practice for women and elearning?
- Are there barriers to women achieving careers in IT?
- Resources

- Other Resources
- Further Research

PROJECTS

A report of an investigation into strategies to increase the participation of women in Victorian industries

Ryan, Liz

Collingwood: Access Training & Employment Centre, 2002, 36 p.

<http://www.equityresearch.org.au/strategies.pdf>

Excerpt from introduction:

This report outlines the activities and findings of a project undertaken with the broad aim of identifying strategies for increasing career opportunities for women. The project sought to identify:

- goals for women and girls' representation in emerging industries, industries which are non-traditional for women and occupational areas offering strong employment prospects;
- strategies to achieve these goals; and
- performance indicators for these strategies.

Creating opportunities: Good practice in small business training for Australian rural women

Simpson, Lyn; Daws, Leonie; Wood, Leanne

In: Journal of Vocational Education and Training, Vol. 54, No. 4, 2002, p. 497-514

Wallingford: Triangle Journals, 2002

<http://www.triangle.co.uk/vae/index.htm>

Excerpt from abstract:

While social and economic changes have altered the conditions and structuring of women's employment in rural areas, the opportunities for women to respond to these changes have been hampered by problems of isolation. The *Small Business Skills for Rural and Regionally Isolated Women Project* was an Australian project undertaken to address the resulting problem of low participation and completion rates of isolated rural women in vocational education and small business training programs. This article identifies the particular training needs of isolated rural women, explores barriers to their participation in vocational education, and provides a matrix of good practice elements for small business training programs aimed at this target group.

IGNITE (Inspiring Girls Now in Technology Education) Project

Cisco Learning Institute Gender Initiative (2001) [online]

http://gender.ciscolearning.org/Strategies/Strategies_by_Region/North_America/United_States/IGNITE_Project.html

Description from website:

IGNITE is a program that grew as a grassroots effort between the Seattle Public School System and professional women working in the high tech field. Entering its third year, IGNITE serves to inspire young women to consider high technology as a positive career choice. In the two years that the program has been active, female enrollment in technology classes has increased by more than 50%. Typically, female participation in the local Cisco Networking Academies at the high school level in the Seattle area was less than 17%. Thanks to IGNITE, those same networking classes have seen an increase of female participation by 35-80% in targeted schools.

Indian state benefits from IT project

Indira Soochna Shakti (ISS) (2001) [online]

Digital Opportunity Channel

<http://www.digitalopportunity.org/external/?url=http%3A%2F%2Fwww.comminit.com%2Fpdskdv62003%2Fsl-7943.html>

Description from website:

The Chhattisgarh government, in collaboration with a private firm, launched a project in 2001 to increase access on the part of 250,000 girls in all 1605 state high schools to information technology (IT) education. Young volunteers, having been empowered with IT education, then lead a broader state initiative to bring locally relevant information and IT to all citizens. In the process, girls emerge as technology resource persons and community leaders.

Legislative priorities: Reauthorization of career and technical education legislation

Women Work!

National Coalition for Women and Girls in Education (NCWGE), 2003

http://www.ncwge.org/documents/Perkins_Position_2003_FINAL.pdf

Excerpt from publication:

The National Coalition for Women and Girls in Education (NCWGE) is comprised of approximately 50 organizations dedicated to improving educational opportunities for women and girls. NCWGE's Task Force on Vocational Education and Training has advocated for more than 30 years for policies and programs to advance the technical skills and career opportunities of women and girls so that they can attain employment that enables them to achieve long-term economic independence. NCWGE promotes all of the pathways that lead to high wage/high skill jobs for women and girls from diverse racial, ethnic, socioeconomic, age and disability backgrounds, including training for non-traditional jobs. Participation and achievement in career and technical education must not be limited by gender segregation, harassment or barriers that prevent girls and women, including single mothers, displaced homemakers and former welfare recipients, from becoming self-sufficient.

Making training work for women: A qualitative study of women's experiences in VET

Connole, Helen

Darlinghurst: TAFE NSW, 1998

<http://www.tafensw.edu.au/publications/gendequi/womcont.htm>

Excerpt from introduction:

This report forms part of the research project Packaging Training for Gender Equity which was commissioned in 1997 by ANTA and the MCEETYA VEET Women's Taskforce. It presents information on women's experiences in the current VET system derived from a qualitative focus group study with extensive use of participant's own voices. The report identifies some critical factors for women's success and suggests strategies for training providers and brokers in relation to these. Implications for new training arrangements, including New Apprenticeships and User Choice, and for further policy development, are also discussed.

The data on success factors for women is examined in relation to the following:

- reasons women gave for entering training and the outcomes they hoped to achieve,
- information gathering, selection and enrolment as aspects of the early stages of the training process,
- facilitating factors and obstacles to ongoing participation,
- aspects of off the job and workplace assessment.

The study included a literature review, preliminary interviews of stakeholders with relevant industry and provider expertise, focus group discussions with a representative sample of women currently in education and training across the VET sector and interviews with training providers and employers associated with the focus groups.

Planning pathways: A resource for providers developing pathways for women from ACE to VET

McIntyre, John; Kimberley, Helen

East Perth?: Western Australian Dept of Training?, 1999? 46 p.

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=25334282>

Description from website:

Pathways refer to the linkages that can be made between Adult Community Education (ACE) and accredited vocational education and training (VET). These linkages are particularly important for women identified as disadvantaged under the National Women's VET Strategy. The Women's Strategy aims for increased participation and more equitable outcomes for these women. Pathway planning describes a strategy adult educators can use to develop or improve the pathways women take from informal/non-accredited education courses to accredited courses. The pathway planning project conducted under the Women's Strategy and funded by the Australian National Training Authority (ANTA) documented practices providing pathways to accredited VET programs.

Planning pathways for women from adult community education to vocational education and training

McIntyre, John; Kimberley, Helen

East Perth: Western Australian Department of Training, 1999, xi, 67 p.

ISBN 0646327623

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=25552342>

Description from website:

Women make up the large majority of participants in Adult Community Education (ACE) programs. Equity of access to Vocational Education and Training (VET) for women in Australia is dependant on the existence of pathways between ACE and accredited VET courses. Large numbers of women participate in ACE, and the link between ACE and formal VET is a vital component for achieving the aims of the National Women's VET Strategy. The aim of this project was to investigate and document 'models or practices in states and territories that provide formal or informal pathways, linkages or articulation from non-accredited adult and community education programs to accredited programs of vocational education and training'. The project was to report on the findings on ACE-VET pathways, for women in ACE generally and with specific reference to the equity target priority groups of women identified in the national Strategy and to produce a print resource which could be used by providers to develop pathways. Part 1 outlines the objectives and methodology of the project. Part 2 describes research on pathways and discusses issues of equity, funding and competition. Part 3 outlines models of pathway planning, community development models and path to employment models. Part four explores the factors promoting pathway development in ACE, provides principles for planning pathways and some issues for consideration.

Report and recommendation of the president to the board of directors on a proposed loan to the Kingdom of Bhutan for the Basic Skills Development Project

Asian Development Bank

Asian Development Bank, 2001, 75 p.

http://www.adb.org/Documents/RRPs/BHU/rrp_31317_bhu.pdf

Excerpt from project and loan summary:

Human resources in Bhutan need to be further developed to meet the demand of a modern market economy. Responding to the urgent need for skills training, the proposed Project aims to establish an efficient, flexible, cost-effective, and sustainable basic skills training program. The Project will (i) reform the current technical and vocational education and training (TVET) system; (ii) strengthen the government's capacity for policy making, planning, management, and administration of skills training; (iii) promote more equitable access to skills training, particularly for people living in rural areas, women and the poor, who did not have access to such training; (iv) improve the quality and increase the quantity of basic skills training, and develop quality support systems and adequate facilities, equipment, trainers, and materials; (v) promote effective use of basic skills through enhanced relevance of skills training, positive values toward skills and manual work, and career guidance, counseling, and employment placement services.

Sabah women to benefit from free ICT courses

ICT World News, Daily Express News (January 13, 2003) [online]

London: Commonwealth Telecommunications Organisation, 2003

<http://www.cto.int/index.php?dir=07&sd=11&id=836>

Excerpt from publication:

Kota Kinabalu: Women in Sabah including single mothers stand to benefit from the free Information and Communication Technology (ICT) training courses jointly offered by the Federal Ministry of Women and Family Development and Sabah Skills and Technology Centre (SSTC).

Scientific, technical and vocational education of girls in Africa

UNESCO Section for Science and Technology Education; Section for Technical and Vocational Education

Paris: UNESCO, 1999, 8 p.

http://www.unesco.org/education/educprog/st/pdf_files/girls/background.pdf

Excerpt from publication:

UNESCO's current Medium-Term Strategy (1996-2001) designated Women and Africa as priority target groups for action. In this context, a six-year *Special Project on Scientific, Technical and Vocational Education of Girls in Africa* was launched in 1996, with the aim to reduce gender disparities in this field. This is a joint project of the Section for Science and Technology Education and the Section for Technical and Vocational Education, undertaken in close co-operation with field offices of the region.

The overall objectives of the project are:

- To improve the access of girls to scientific, technical and vocational education (STVE);
- To break the barriers for girls in secondary school, notably by improving the quality and effectiveness of STVE;
- To make an impact on the attitudes and stereotypes of teachers, which prevent girls from taking advantage of current opportunities in science and technology;
- To promote a positive image of women in scientific and technical careers;
- To sensitize policy makers, parents, employers and the general public about the ways in which women's full participation in science and technology can make a positive difference for current and future generations.

Support for gender strategies in the Cisco Network Academy Program: Mexico gender strategy update 2002

Academy for Educational Development; Cisco Learning Institute

Phoenix: Cisco Learning Institute, 2002, 4 p.

http://gender.ciscolearning.org/assets/pdf/mexico_update_02.pdf

No abstract available:

Supporting women returning to work – A European perspective

Shepherd, Jan; Saxby-Smith, Sue

Paper presented at the AVETRA 2001 Conference

Australian Vocational Education and Training Research Association, 2001, 11 p.

http://www.avetra.org.au/abstracts_and_papers_2001/Shepherd_full.pdf

Excerpt from introduction and context:

This paper is based upon a two year LEONARDO 1 project, designed to address a European Commission priority of combating the exclusion of those disadvantaged in the labour market. The project involves comparative research into the effectiveness of Returner courses in enabling women to make a sustained return to paid employment. Four European countries (France, Spain, Ireland and the UK) participated in the project and one of the aims was to develop guidelines for the design, content and delivery of Returner programmes. It is these guidelines and some of the methodological and practical issues associated with conducting transnational research which constitute the focus of the paper.

Third country training program on mainstreaming Gender and Development (GAD) in Technical Vocational Education and Training (TVET), focus: Entrepreneurship development

Technical Education and Skills Development Authority (TESDA) [online]

<http://www.tesda.gov.ph/events/tctpgi3.asp>

Description from website:

The purpose of the training program is to develop knowledge, skills and attitude in mainstreaming gender and development in Technical Vocational Education and Training (TVET) focusing on entrepreneurship development among the ASEAN member countries. It shall provide a forum for sharing and learning from cross-cultural experiences in mainstreaming GAD in TVET from various perspectives and identify best practices on gender-based entrepreneurship development program.

Objectives:

At the end of the training program, the participants will be able to:

- Discuss thoroughly gender and development (GAD) efforts in APEC and ASEAN countries;
- Share knowledge on country efforts on mainstreaming GAD in Technical Vocational Education and Training (TVET);
- Identify gender-based entrepreneurship development programs and best practices at policy, institution, and community levels;
- Apply appropriate indicators and methods in monitoring and evaluating the gender responsiveness of TVET programs;
- Identify new models, best practices and distinctive areas of competence in mainstreaming GAD in TVET;
- Initiate country specific action plans to highlight the importance of gender responsive TVET systems to their respective policy makers and TVET administrators;
- Identify possible areas of regional collaboration for future projects;

- Promote networking/linkaging among participants.

UNIFEM programme in entrepreneurship development for women: An experience from Lebanon

El Husseini, Randa

In: Singh, Madhu (ed.), *Adult learning and the future of work*, UNESCO Institute for Education (UIE) p. 205-220

Hamburg: Robert Seeman, 1999

ISBN 9 282 01090 1

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=24102900>

Description from website:

This paper describes a United Nations Development Fund for Women (UNIFEM) project in Lebanon. This project is designed to provide the support needed by women who are trying to establish small and micro-enterprises in order to ameliorate the effects of war and economic crisis. The paper outlines the macro-economic conditions influencing such enterprises before turning to issues of training of trainers, the potential of women entrepreneurs and the process of responding to problems. The paper concludes by describing the empowerment plan 1999-2001 of UNIFEM, and the implications of the project for adult learning and the future of women's work.

Woman, training and work: Regional programme to strengthen the vocational and technical training of low-income women

CINTERFOR – Inter-American Research and Documentation Centre on Vocational Training

Geneva: International Labour Organization

<http://www.cinterfor.org.uy/public/english/region/ampro/cinterfor/temas/gender/formujer/>

Description from website:

Main Objective:

The main objective of the programme is to increase productivity and employment opportunities of low-income women. It also seeks to support women participation in development and contributing to the reduction of poverty in the region.

The Specific Objectives of the Programme are:

- Boosting the quality, relevance and gender equity of technical-vocational education and training in the region,
- Bringing about favourable conditions for equal participation by women in TVET,
- Matching training supply to current demands of labour markets,
- Raising the technical level of women and widening the range of their training options,
- Dissemination of models and methodologies developed in the programme throughout Latin American.

Access of girls and women to scientific, technical and vocational education in Africa

Mariro, Augustin (ed.)

Dakar: UNESCO Regional Office for Education in Africa, 1999, 40 p.

ISBN 9 290 91078 X

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=28489425>

Description from website:

During 1996-1997, surveys were conducted in about twenty English and French speaking countries in the African region as part of the project on 'Technical, scientific and vocational training for young girls in Africa'. The surveys dealt with women's place in scientific and technical careers, psychological obstacles which impede their progress, and measures to overcome these obstacles. The aim of this publication is to sensitise public opinion and to encourage exchange of information between researchers and educators in the region who are working to reduce gender inequalities in access to science and technology.

The first part of the publication outlines general concerns with women's access to education at both international and regional levels. The second part presents a synthesis of the surveys, and reports based on the survey results from each country.

Against the odds: An exploratory study of Mexican immigrant women with technical education

Morgan E.

In: Hispanic Journal of Behavioral Sciences, Vol. 25, No. 2, May 1, 2003, p. 201-221

London: Sage Publications, 2003

ISSN 0739-9863

<http://www.ingenta.com/isis/searching/ExpandTOC/ingenta.jsessionid=pokdrd8es7cd.crescent?issue=pubinfobike://sage/j251/2003/00000025/00000025&index=4>

Description from website:

Recent social science research has created a largely negative profile of Mexican immigrants in the United States. Although most Mexican women arrive in the United States with less than a high school education, researchers have overlooked a minority group within the immigrant population that has more education. This article is an exploratory study of the experiences of Mexican immigrant women holding a vocational certificate from technical education institutions in Mexico. Data were gathered through in-depth interviews of eight informants living in the San Francisco Bay Area and Southern Idaho. Interview results show that vocational education does not ensure success as measured by common social science indicators. This study concludes that the informants are highly successful women when measured by their personal standards.

Brave new women of Asia: How distance education changed their lives

Kanwar, Asha; Taplin, Margaret (eds.)

Vancouver: The Commonwealth of Learning, 2001, 82 p.

ISBN 1 895 36979 7

<http://www.col.org/resources/publications/BraveNew.pdf>

Excerpt from introduction:

The aim of this book of case studies is to inspire and encourage women to participate in open and distance learning. Going through the case studies, potential women learners will see that most of their reservations and fears are unfounded. Other questions in their minds about how to cope with studies after a long gap, at a mature age or without regular tutorials will be answered as they read about the experiences of other women like themselves.

Disparities in access to continuing vocational training in enterprises in Europe

Nestler, Katja; Kailis, Emmanuel

In: Statistics in focus: Population and Social Conditions, Theme 3, 2002, 8 p.

Eurostat, Statistical Office of the European Communities, 2002

ISSN 1024-4352

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=KS-NK-02-022--N-EN&mode=download>

Excerpt from publication:

Analysis of inequalities or disparities in access to continuing training is an important field of inquiry in any evaluation of vocational training systems that seeks to assess their selectiveness and effectiveness in supplementing the training offered, for example to employees with the lowest levels of initial educational attainment. As in any analysis of forms of inequality involving the relationship between training and employment, those under investigation here may be caused by at least two factors. The first is the characteristics of enterprises, the second those of individuals, or even both at the same time. The CVTS2 data are taken from enterprises; consequently, they do not enable us to take account of all the individual heterogeneity, which necessarily plays a part in explaining the variance in disparities that will be observed. Gender is one of the individual factors taken into consideration for analysis here.

"Don't be too polite, girls!" Women, work, and vocational education and training

Butler, Elaine; Ferrier, Fran

Leabrook: National Centre for Vocational Education Research, 2000

ISBN 0 873 97582 0

<http://www.ncver.edu.au/research/proj/nr7028.pdf?PHPSESSID=bc126953613cd6db0eb01bbca83e43ac>

No abstract available:

Evaluation report on women and vocational education

Australian National Training Authority

Brisbane & Melbourne: Australian National Training Authority, 2001, 4 p.

www.equityresearch.org.au/WomeninvetE.pdf

Description: (broad topics)

- Progress in Women's Participation in TVET
- In spite of improvement still inequities
- Apprenticeships (Women in Training)
- Strategies to Broaden Representation of Women in Industry
- Limited Access to Training in Employment
- Considering Women's Lives and Employment Needs

Gender differences in employer-supported training and education

Keaveny, Timothy J.; Inderrieden, Edward J.

In: Journal of vocational behavior, Vol. 54, No. 1, February 1999, p. 71-81

Orlando: Academic Press, 1999

ISSN 0001-8791

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=23716649>

Description from website:

This article reports on a study that examined the difference in training and development opportunities for men and women in a group of MBA students employed in a variety of occupations, industries, and organisations in the USA. Specifically the study sought to identify any gender difference in employer support for education and training, and the factors related to any such gender differences. Initially, findings indicated that women received less corporate support for training and development. However, when factors such as organisation size, number of working hours each week, and work experience, were considered, no gender differences in employer support for training and education were apparent.

Gender equality in basic education: A gateway to lifelong learning for all

Messina, Graciela

In: Medel-Anonuevo, Carolyn (ed.), Integrating lifelong learning perspectives, p. 143-160, International Conference on Lifelong Learning, Beijing, 2001

Hamburg: UNESCO Institute for Education, 2002

ISBN 9 282 01115 1

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=45750717>

Description from website:

The expansion of basic education is seen as the gateway for the institutionalisation of a concept of lifelong learning for all in Latin American education. This paper looks into the existence of gender-based discrimination in basic education for children, young people and adults in Latin America. Lifelong learning has been a significant area for action in Latin America for the past three decades, associated with programs for young people and adults who have been excluded from educational systems. Basic education, in the context of this paper, is not primary education but is a new organisational level of the educational system which includes early childhood education, primary education and the first cycle of secondary education. Trends in equality and inequality in basic education for males and females are analysed showing that the enrolment of females in basic education in the 1990s was equal to and sometimes higher than that of males. However Indigenous girls and women have been particularly affected by gender disparities with girls having an earlier dropout rate in rural areas. Gender disparities are also transmitted through books and school interaction. Government gender policies are discussed. The paper concludes by offering recommendations which suggest that gender equality should be approached as part of a wider problem of social exclusion.

Invisible again: The impact of changes in federal funding on vocational programs for women and girls

National Coalition for Women and Girls in Education

Washington, D.C.: National Coalition for Women and Girls in Education, 2001, 36 p.

<http://www.ncwge.org/perkins.pdf>

Excerpt from executive summary:

The National Coalition for Women and Girls in Education's Task Force on Vocational Education and Training surveyed hundreds of programs across the country that help women and girls enroll and succeed in vocational programs. The goal of the survey was to assess how changes made in 1998 to the federal law that funds vocational education (commonly known as the "Perkins Act") have affected these programs. This report provides the national and state-by-state results of that survey. As discussed in the report, the information raises serious concerns about the capacity of programs to provide much-needed services to women and girls in vocational programs.

Options: Women in emerging and non-traditional occupations and industries

Ryan, Liz; Macdonald, Fiona

Collingwood: Access Training and Employment Centre, 2001

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=41090973>

<http://home.vicnet.net.au/~atec/reports/rep5.01.htm>

Description from VOCED website:

The aim of this Access Training and Employment Centre (ATEC) report is to support an increase in employment opportunities for women (in accordance with the Victorian Government's commitments in its 'Valuing Victoria's women: forward plan 2000-2003' through bringing together key stakeholders in industry employment, training and education to synthesise the issues around women's participation in the non-traditional and emerging areas and to assist partnerships and networks in Victoria. The process began with a series of interviews with various stakeholders followed by a discussion paper. Three forums were then conducted with key stakeholders; one in Ballarat with a regional focus, one based on the electrotrades and one designed around a course conducted in 2000 - the Electrical Bridging Program. A broad range of issues were identified during the course of this project. For example, the challenge to increasing the number of women in less traditional occupations and trades lay with difficulty in attracting women, compounded by the fact that many trades are having difficulty attracting young recruits in general. Key areas for strategic intervention, identified as priorities in this project, include addressing gender imbalances in management across the vocational education and training (VET) network and strengthening accountability and incentives for achieving outcomes in existing diversity management and equal opportunity frameworks and plans.

The position of women in production in the process manufacturing industry in South Australia: Implications for VET

Meredith, Isbell

Paper presented at the AVETRA 2001 Conference

Australian Vocational Education and Training Research Association, 2001, 19 p.

http://www.avetra.org.au/abstracts_and_papers_2001/Isbell_full.pdf

Excerpt from abstract:

As part of a wider industry study undertaken by the process manufacturing ITAB, the position of women in production was surveyed. The findings indicate a discriminatory pattern of employment for women, who

comprise approximately a quarter of the workforce. Women are more likely than men to be employed in part-time and casual positions and their access to traineeships is limited. Women tend to be clustered in low-skilled production jobs and their representation in supervisory positions is limited. The reasons for women's exclusion from high skilled production jobs and the implications for their access to VET are considered. The problem is not just one of equity, but whether industry is fully utilizing the skills of the workforce.

Scientific, technical and vocational education of girls in Africa: Summary of 21 national reports

Hoffmann-Barthes, Anna; Nair, Shamila; Malpede, Diana

Paris: United Nations Educational, Scientific, and Cultural Organization, 2003

<http://unesdoc.unesco.org/images/0011/001180/118078eo.pdf>

Excerpt from publication:

Few young women choose science subjects, and even fewer take science-based degrees and use their degree in a related career. The reasons for this are varied, including differences in ways boys and girls learn and the organization of the education system including gender-biased curricula, textbooks not related to women's and girls' concerns, and negative attitudes of teachers, as well as influence from the society as such, notably socio-cultural constraints and negative role modeling. It is important to recognise that improving scientific, technical and vocational education, especially for empowering girls/women and improving their lives, is vital to resolve the shortfall of human resources and to tackle the problems of poverty in developing countries. In order to explore ways and methods to reduce the gender gap in STE; UNESCO developed pilot and research projects targeted to girls and women in developing countries.

Students in vocational education and training

Australian National Training Authority (NCVER)

Brisbane & Melbourne: Australian National Training Authority, 2000

<http://www.ncver.edu.au/statistics/aag/student00/ovstud00.pdf>

Excerpt from publication:

This publication provides information pertaining to students undertaking training within Australia's publicly funded Vocational Education and Training (VET) System in 2000. It provides an overview of student characteristics and analyses changes in student profiles over recent years.

Title IX and equal opportunity in vocational and technical education: A promise still owed to the nation's young women

National Women's Law Center

Washington, D.C.: National Women's Law Center, 2002, 8 p.

<http://www.nwlc.org/pdf/career%20ed%20report%20for%20june%206%20press%20event3.pdf>

Excerpt from summary:

Substantial progress has been made in opening important educational opportunities for women, and Title IX has relegated the era of pink and blue forms – and these explicit types of discrimination against girls – to the history books. But in the area of vocational and technical education, women and girls have, sadly, been left behind. Thirty years after enactment of Title IX, the patterns of enrollment in vocational and technical programs look shockingly similar to the patterns that existed prior to passage of the law. Biased counseling, the provision of incomplete information to students on the consequences of their career training choices, sexual harassment of girls who enroll in non-traditional classes, and other forms of discrimination conspire today to create a vocational system characterized by pervasive sex segregation. Young women remain clustered in “traditionally female” programs that prepare them for low-wage careers and do not provide them with the training or technical skills necessary to enter high-wage jobs. Young men, on the other hand, fill the vast majority of slots in programs leading to higher-wage careers that can provide true economic self-sufficiency.

Transforming VET transforming women: Evaluation report on the National Women's Vocational Education and Training Strategy

Australian National Training Authority (ANTA); Ministerial Council on Education, Employment, Training and Youth Affairs, Australia; VEET Women's Taskforce (MCEETYA)

Brisbane & Melbourne: Australian National Training Authority, 2001, 109 p.

ISBN 0 73107 903 5

<http://www.anta.gov.au/publication.asp?qsID=223>

Description from website:

This report evaluates the impact of the National Women's Vocational Education and Training Strategy from 1996-1999 in promoting a more accessible and equitable VET sector for Women.

Vocational courses 'exclude women'

Davies, Rodrigo

In: *The Guardian* Newspaper (U.K.), January 27, 2003

<http://education.guardian.co.uk/print/0,3858,4585841-108283,00.html>

Excerpt from publication:

A study conducted by economists at Manchester Metropolitan University, and to be presented at the Royal Economic Society conference, found that courses designed for non-academic students, such as the Higher National Diploma (HND) and the General National Vocational Qualification (GNVQ), are male-orientated and significantly less likely to accept female applicants.

Vocational education in the United States: Toward the year 2000

Levesque, Karen; et al.

Washington D.C.: U.S. Department of Education, National Center for Educational Statistics, 2000, 424 p.

http://nces.ed.gov/pubs2000/2000029_2.pdf

<http://nces.ed.gov/pubs2000/2000029.pdf> (full-text)

Excerpt from overview (section V):

This chapter provides information on the postsecondary education and labor market experiences of public high school graduates. Postsecondary outcomes are presented before labor market outcomes, because, as discussed in Chapter II, postsecondary attainment contributes to labor market success. Two data sets were used in the analysis:

- *High School and Beyond (HS&B)* Sophomore Cohort Second and Fourth Follow-up Surveys
- National Education Longitudinal Study of 1988 (NELS:88) Third Follow-up Survey

Women in non-traditional occupations: What works?

Cadogan, C. Jennifer

Paper presented at the *IVETA Annual conference 2001: improving vocational education and training systems*, Jamaica, July 31-August 2, 2001

<http://iveta.itweb.org/>

<http://iveta.itweb.org/Papers/Cadogan.pdf> (Full-text)

Excerpt from introduction:

The central purpose of this paper is to investigate non-traditional occupations (NTOs) and employment for women, explore failures, successes, and remaining barriers for women in the workplace. Specifically it examines those barriers that have remained impervious to the idea that this area of employment has the potential to promote economic independence and equality of opportunities for women.

Women in vocational education and training

Access Training & Employment Centre (2002) [online]

Collingwood: Equity Research Centre

<http://www.equityresearch.org.au/WomeninvetE.pdf>

No abstract available:

Women in VET 1999: At a glance

Australian National Training Authority, National Centre for Vocational Education Research
Brisbane & Melbourne: Australian National Training Authority (NCVER), 1999, 12 p.

<http://www.ncver.edu.au/statistics/aag/women99/women99.pdf>

Excerpt from introduction:

Women in VET 1999: At a glance is a companion publication to a larger, more extensive report titled Women in vocational education and training 1999. The report was released in 2000 and was commissioned by the Ministerial Council on Education, Employment, Training and Youth Affairs Vocational Education, Employment and Training (MCEETYA VEET) Women's Taskforce and funded by the Australian National Training Authority (ANTA). The focus of the main report was to provide a detailed analysis of the data on participation of women in the public VET sector in 1996–1999.

Women in VET 1999: At a glance presents highlights of the main findings from the earlier report. In particular, it indicates that from 1996 to 1999 women's participation in public VET had increased at a higher rate than men's participation. Thus, over the three years, the number of women grew by almost 28%, while the number of men by some 20%. This increase corresponds to the annual growth rate of almost 9% for women and just over 6% for men. This publication also shows that in 1999 females participated in VET on an equitable basis with males, having accounted for almost half of all VET students, course and subject enrolments. In 1999, female training activity was characterised by a high success rate, as almost 90% of all assessed subject enrolments by females resulted in a successful outcome.

However, as the data indicates, in terms of employment outcomes, gender equity has not yet been fully achieved. On completion of VET training, female graduates were more likely than males to be unemployed or be employed part-time. The report findings also indicate that the concept of traditionally 'female' and 'male' occupations still exists and that some industries predominantly employ either males or females.

Women in VET 2000. Australian vocational education & training statistics

Australian National Training Authority, National Centre for Vocational Education Research
Brisbane & Melbourne: Australian National Training Authority, 2001
<http://www.ncver.edu.au/vetsystem/21025.html>

Excerpt from publication:

This report is a summary update of a more extensive report on the participation of women in the Australian public VET (vocational and technical education) sector in 2000. Data were obtained from publicly funded training providers, including TAFE (Technical and Further Education) institutions and some schools and universities, registered community education providers, and some private providers (excluding their fee-for-service clients). Some of the highlights of the report include the following: (1) from 1991 to 2000, the number of women in public VET increased at a higher rate (by 94 percent) than the number of men (by 64 percent); (2) in 2000, females participated in VET on an equitable basis with males, making up about half of all 1.7 million VET students; (3) almost 90 percent of the women students had successful school outcomes, but in terms of employment outcomes, female graduates were more likely than males to be unemployed or employed part-time; and (4) the concept of traditionally "female" and "male" occupations still exists and some industries predominantly employ either males or females.

Women in VET 2000: At a glance

National Centre for Vocational Education Research, National Centre for Vocational Education Research
Brisbane & Melbourne: Australian National Training Authority, 2001
<http://www.ncver.edu.au/statistics/aag/women00/women00.pdf>

Excerpt from introduction:

This publication is a summary update of a more extensive report 'Women in vocational education and training: an analysis of 1996 and 1999 data' (TD/TNC 66.08). It presents highlights of the training activity undertaken by women enrolled in Australia's public vocational education and training (VET) sector in 2000. Included are data on student numbers and major characteristics, training activity and employment outcomes. This publication indicates that from 1991 to 2000 the number of women in public VET had increased at a higher rate than the number of men. In 2000, women participated in public VET on an equitable basis with males, accounting for almost half of all VET students. However the report indicates that gender equity has not yet been achieved in terms of employment outcomes and that the concept of traditionally 'male' and 'female' occupations still exists.

Women in vocational education and training: An analysis of 1996 & 1999 data

Phan, Oanh
Brisbane & Melbourne: Australian National Training Authority, 2001
ISBN 0 87397 707 6 print

Excerpt from highlights of report:

Over the last ten years, there has been a steady increase in the participation of women and men in vocational education and training (VET). Over the three years from 1996 to 1999, the number of women undertaking a VET program increased by 28% while the number of men in VET grew by 20%. The annual growth rate for women in VET during this period was 8.5% while men's participation in VET increased by about 6.2% annually. In 1996, there were 1.8 million course enrolments in vocational programs. In 1999, the total number of course enrolments increased to almost 2.0 million. In 1996, women comprised 47.2% of all course enrolments while men represented 51.2% of all course enrolments. Similarly, women who undertook their studies in the VET sector during 1999 comprised 47.9% of all course enrolments while men represented 51.6% of all enrolments.

In 1996, the highest proportion of enrolments by women was 35-to-44-year olds (21.4%), while the highest proportion of enrolments by men was 15-to-19-year olds (22.7%). In 1999, the highest proportion of enrolments by women was in the 15-to-19-age group (20.5%) and women in the 35-to-44-age group (20.9%). The highest proportion of course enrolments by men who undertook their studies in the VET sector during 1999 was by 15-to-19-year olds (25.3%).

Key data on vocational training in the European Union: Young people's training

European Commission Directorate General for Education and Culture; Eurostat – Statistical Office of the European Communities; CEDEFOP – Centre for the Development of Vocational Training
1999, 13 p.

http://www2.trainingvillage.gr/etv/publication/download/keydata/keydata2/EN/00KD99_Intro_EN.pdf

Excerpt from introduction:

The issue of equal opportunity is of particular relevance in the training context. The acquisition of competences and qualifications is one of the best guarantees for women in preparing for the prospect of lasting, more reliable and better paid employment with opportunities for advancement in their work.

An approach for vocational education and training for women in the knowledge-based society

Kim, Mee-Souk; Choi, Ji-Hee

In: Korea Research Institute for Vocational Education & Training, 2001 research abstracts

Seoul: KRIVET, 2002, p. 27-32

ISBN 8 984 36415 0

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=45145106>

Description from website:

This detailed abstract reports on a study in which various aspects of the directions and implementation strategies of Korea's vocational education and training (VET) for developing the vocational capability of Korean women are examined. The abstract is presented under the following headings: Objectives; The development of women's vocational capabilities in the knowledge-based society; The direction of women's vocational education and training in a knowledge-based society; Strategies for the development of women's vocational education and training in a knowledge-based society.

Closing the gender gap?: Non-traditional curriculum choices and entry into working life

Couppie, Thomas; Epiphane, Dominique [online]

In: Training & employment, No. 44, July-September 2001

Centre d'étude et de Recherches sur les Qualifications (CEREQ)

ISSN 1156-2366

<http://www.cereq.fr/cereq/trai44.pdf>

Description from website:

The litany of work-related disparities between men and women is long: risk of unemployment or imposed part-time work, lower wages, more difficult access to managerial posts. These inequalities, which manifest themselves at the time of entry into working life, are often interpreted as the result of gender segregation in the educational process. If this is the case, we may legitimately expect the gaps to be smaller for young women and men who have chosen a programme of study usually privileged by the other gender. The findings presented here indicate that under certain conditions, non-traditional education and training can benefit young women in the school-to-work transition. And that, paradoxically, the most mixed training programmes do not seem to offer protection from traditionally observed gender disparities.

Employment strategies for women in Cambodia

Asian Development Bank

Manila: Asian Development Bank, 1998, 59 p.

[http://labordoc.ilo.org/cgi-](http://labordoc.ilo.org/cgi-bin/Pwebrecon.cgi?Search_Arg=Employment+strategies+for+women+in+Cambodia&SL=None&Search_Code=TALL&PID=3310&SEQ=20040805111636&CNT=30&HIST=1)

[bin/Pwebrecon.cgi?Search_Arg=Employment+strategies+for+women+in+Cambodia&SL=None&Search_Code=TALL&PID=3310&SEQ=20040805111636&CNT=30&HIST=1](http://labordoc.ilo.org/cgi-bin/Pwebrecon.cgi?Search_Arg=Employment+strategies+for+women+in+Cambodia&SL=None&Search_Code=TALL&PID=3310&SEQ=20040805111636&CNT=30&HIST=1)

Excerpt from website:

Analyses the socioeconomic and employment situation of women in Cambodia and describes strategies for the promotion of women's employment. Summarizes the results of a national survey of skills training programmes and examines the impact of these programmes.

Exploring the mismatch between skills and jobs for women in Saudi Arabia in technical and vocational areas: The views of Saudi Arabian private sector business managers

Calvert J.R.; Al-Shetaiwi A.S.

In: International Journal of Training and Development, Vol. 6, No. 2, June 2002, p. 112-124

Blackwell Publishing, 2002

http://www.ingenta.com/isis/searching/ExpandSearch/ingenta;jsessionid=all188uq1pgolm.circus?title=Exploring+the+mismatch+between+skills&title_type=tka&year_from=1997&year_to=2004&database=1&pageStart=1&index=1

Description from website:

Saudi Arabia's rapid development has highlighted the shortage of national technical manpower and the subsequent need to recruit non-Saudi technical workers, on the one hand, and the difficulty of replacing these

workers with qualified Saudis, on the other. Therefore successive Development Plans have tried to raise the quality and quantity of technical and vocational education for both men and women. In 1995/96 only 5 per cent of Technical and Vocational Education (TEVT) enrolled students were female. This compares with an average of 29 per cent in other Islamic countries and 45 per cent in Japan (UNESCO, 1997, 1999). Part of this may be due to the preferences of female students in education, part due to the structure of TEVT in Saudi Arabia, part due to the availability of technical and vocational jobs available for women after completing their training and part due to the natural place of women in Saudi society. The Seventh Development Plan (2000–2004) assumes that the private sector will play a very significant role in employing a Saudi labour force including both men and women.

Gender guidelines for employment and skills training in conflict-affected countries

International Labour Office, Training Policies and Systems Branch

Geneva: Training Policies and Systems Branch, International Labour Office, 1998, xiv, 57 p.

ISBN 9 221 11124 5

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=22886544&>

Description from website:

Skills training and employment programs play an integral role in the comprehensive strategy required for reconstructing societies that have been affected by conflict and building a lasting peace. This publication looks at the gender differential impact in such countries, taking it into account in the context of the challenge of designing, implementing and evaluating skills training and employment promotion programs. The publication then provides guidelines for gender awareness and the planning of gender aware employment, training and skill development programs.

Has nontraditional training worked for women?

Kerka, Sandra

In: Myths and Realities, No. 1, 1999

ERIC Clearinghouse on Adult, Career, and Vocational Education, 1999

<http://www.cete.org/acve/docs/mr00016.pdf>

Description from website:

We've come a long way--maybe. After more than a quarter century of federal legislation and public and private sector initiatives, is the concept of "nontraditional occupations" (NTOs) disappearing? Are women making inroads into fields in which they have traditionally been underrepresented? This publication investigates nontraditional training and employment for women, exploring failures, successes, and remaining barriers for women in the workplace.

In the 1970s, the imbalance in gender distribution across occupations came to be recognized as a socioeconomic problem, and federal legislation aimed at education, training, and employment began to address the issue over the next 2 decades. Title IX of the Education Amendments of 1972 and Executive Order 11246 in 1978 prohibited discrimination by schools and contractors receiving federal funds. The Carl D. Perkins Vocational Education Act and its successive reauthorizations established state equity coordinators and set aside program funds specifically for gender equity and single parents/displaced homemakers (SP/DH). The Nontraditional Employment for Women Act of 1991 amended the Job Training Partnership Act to require employment goals for women in NTOs, and the 1992 Women in Apprenticeship Occupations and Nontraditional Occupations Act (WANTO) provided technical assistance to employers and unions for integrating women into NTOs. In 1994, the School-to-Work Opportunities Act was intended to increase opportunities for people to prepare for careers not traditional for their race, gender, or disability (Ohio State University 1996; Olson 1999; Wider Opportunities for Women 1993).

New challenges to technical and vocational education: What we learned from the Second International Congress on Technical and Vocational Education

Tang, Qian

In: Korea Research Institute for Vocational Education and Training (KRIVET), International conference on vocational education and training in Asia Pacific region: vocational education and training for all, Seoul, Republic of Korea, 18-20 October 2000

Seoul: Korea Research Institute for Vocational Education and Training, 2000, p. 3-14

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=31215535>

Description from website:

This paper attempts to summarise the outcome of the Second International Congress on Technical and Vocational Education which took place in Seoul, Republic of Korea in April 1999 (see TD/INT 59.239, TD/INT 59.521 and TD/TNC 62.417 for documents relating to this Congress). The Congress looked at how technical and vocational education and training (TVET) systems must face future changes and challenges which include globalisation, a constantly changing technological scenario, the information and communications revolution, and constant and rapid social change. The implications of these challenges include the increased mobility of labour and capital, uneven impacts on rich and poor, and emerging market economies in both rural and industrial sectors. Future jobs will require more diverse vocational abilities and knowledge, calling for education reform and a guaranteed system of lifelong learning for all. The Congress produced a new vision of TVET with three main objectives: to strengthen TVET as an integral component of lifelong learning; to orient TVET for sustainable development; and to provide TVET for all.

Putting the law on your side: A guide for women and girls to equal opportunity in career education and job training

National Women's Law Center

Washington D.C.: National Women's Law Center, 2000, 15 p.

www.nwlc.org/pdf/ptl.pdf

Excerpt from introduction:

Career education programs, such as vocational training programs, internships, and on-the-job training, are an important way for you to gain the skills you need in order to get a good job with good pay. However, some schools or programs may not give female students an equal opportunity to succeed in career education. Such programs might make education difficult for females by treating females differently or because they have rules or policies that are unfair to females. But the law is on your side — women and girls have the right to equal opportunity in educational programs. You can use the law to protect your right to get the preparation you need for the career you want.

This pamphlet will explain your rights under some major federal laws and how they apply to programs that are designed to prepare you for a career — such as career counseling, vocational education classes, on-the-job training, school-sponsored internships, or job skills classes.

The States and problems in vocational education administration to different culture Thai women in Chiang Mai Wiwakewanaraam Temple Adult Women School

Pratuang Som-ngern, Phramaha

Chiang Mai: Chiang Mai University

<http://www.chiangmai.ac.th/abstract1998/Abstract/cgs/abstract/cgs980971.html>

Excerpt from abstract:

The objectives of this study were to find out the kind of problems regarding occupational training administration and to suggest ways to develop the occupational training administration of Wiwakewanaraam Temple Adult Women School, second semester, 1998.

The population covered in this study are teachers and other people who are involved totalling 17 persons and 113 young girls of different culture Thai women ethnic background who are studying in Wiwakewanaraam Temple Adult Women School.

Questionnaires were used for collecting demographic data, personal data, furthermore data about learning and teaching administration, administration and student activities including methods of managing occupational training. Frequency distribution, percentage, average (m) and standard deviation (s) of data analysis were conducted.

Training and employment services for women: Report of a workshop on increasing women's access to training and employment services

Haspels, Nelien; Nguyen, Van Chuong; et al.

Bangkok: International Labour Organization; Hanoi: Ministry of Labour, Invalids, and Social Affairs, 2001, 43 p.

[http://labordoc.ilo.org/cgi-](http://labordoc.ilo.org/cgi-bin/Pwebrecon.cgi?Search_Arg=Training+and+employment+services+for+women&SL=None&Search_Code=TALL&PID=4813&SEQ=20040805135029&CNT=30&HIST=1)

[bin/Pwebrecon.cgi?Search_Arg=Training+and+employment+services+for+women&SL=None&Search_Code=TALL&PID=4813&SEQ=20040805135029&CNT=30&HIST=1](http://labordoc.ilo.org/cgi-bin/Pwebrecon.cgi?Search_Arg=Training+and+employment+services+for+women&SL=None&Search_Code=TALL&PID=4813&SEQ=20040805135029&CNT=30&HIST=1)

Description from website:

Covers gender issues in general and with respect to micro-enterprise and entrepreneur development, activities of Centres for Employment Services, gender equality in the 1994 labour code and later decrees and regulations in Vietnam. Mentions ILO activities regarding mainstreaming of gender concerns.

Training for empowerment: The impact of training on women's microenterprise development

Leach, Fiona; El-Bushra, Judy; Lewis, Viv (2000?) [online]

Brighton: Id 21

(Funded by:) London & Glasgow: UK Department for International Development

<http://www.id21.org/zinter/id21zinter.exe?a=f&w=Training+for+empowerment&sr.x=39&sr.y=11>

Description from website:

Less and less importance is now being attached to training poor women - indeed some agencies have abandoned it altogether in favour of micro-credit and savings schemes. But should training be put back on the agenda? Findings suggest that well designed and efficiently-delivered training is good both for income and status especially if combined with credit schemes.

European trends in the development of occupations and qualification: Findings of research, studies and analyses for policy and practice: Volume II

European Centre for the Development of Vocational Training (CEDEFOP); Sellin, Burkhart (ed.)
Luxembourg: Office for Official Publications of the European Communities, 2000
ISBN 9 282 87414 1

http://www2.trainingvillage.gr/etv/publication/download/reference/3004en/3004EN_0.pdf

No abstract available:

Gender and skills: Distributive ramifications of the German skill system

Kruger, Helga

In: Culpepper, Pepper D.; Finegold, David (eds.), *The German skills machine: sustaining comparative advantage in a global economy*, 1999, p. 189-227

New York: Berghahn, 1999

ISBN 1 571 81144 3

<http://www.voced.edu.au/cgi-bin/get-iso8.pl?off=28615864>

Description from website:

This chapter begins by describing how occupational skill provision is part of an intricate educational system that incorporates cultural, economic and social policy. The author suggests that this led to the formation of two coexisting but different types of vocational education and training in Germany: the vocational and educational dual system (VED) in which male youths predominate, and the school-based vocational education system (SVE) in which female youths predominate. The chapter considers the effects of this double structure on the shaping of the life courses of women and the function of the gendered structuring of tracking for the employment system.

Gender differences in wages after vocational training

The Workforce Training and Education Coordinating Board

Olympia: The Workforce Training and Education Coordinating Board, 1999

<http://www.wtb.wa.gov/gender.html>

Excerpt from introduction:

There is a persistent gap between men's and women's wages, which has narrowed over time, but not disappeared. Although there is continuing debate over the causes and meaning of the gap, according to many reports, men and women of similar skill levels who are in identical occupations earn different wages.

In the Workforce Training and Education Coordinating Board's biennial evaluation of the state's training system, "Workforce Training Results 1998," we found that, both before and after leaving vocational training, women typically had substantially lower hourly wages than men. This is true for a wide range of programs, including apprenticeship, community and technical college training, and secondary vocational-technical education.

Given these findings, we investigated further to determine the factors associated with the gender differences, and whether vocational training had any affect on the gender gap.

IT courses and the IT industry: Does the future rely on gender or generation?

Walker, Elizabeth; O'Neil, Lorraine

In: Goody, Allan; Herrington, Jan; Northcote, Maria (eds.), *Proceedings of the 2002 Annual International Conference of the Higher Education Research and Development Society of Australasia (HERDSA)*, Perth, Western Australia, 7-10 July 2002, p. 695-703

Perth: Higher Education Research and Development Society of Australasia, Inc, 2002

ISSN 1441 001X

ISBN 0 908 55752 3 [online]

<http://www.ecu.edu.au/conferences/herdsa/main/papers/ref/pdf/Walker.pdf>

Excerpt from abstract:

The use of IT is pervasive in all work and leisure and its importance cannot be underestimated. Higher educational institutes are increasingly marketing new IT courses -but are they attracting the students? Today there is a mix of generations within the IT industry, from Baby Boomers, Generation X 'ers to the new work generation, Generation Y. This paper will discuss results from a study of university students reviewing different generations and genders and their perceptions of the IT industry. It would appear that not only are women not attracted to I.T. courses, but Generation Y students are unlikely to choose IT as a career path. The implication of these findings, is that the skills shortage problem will not be solved by the next generation of workers, generation Y, as both males and females cannot identify with careers in I.T.

Women in apprenticeships and traineeships in Victoria in 2001: Report to the Office of Training & Tertiary Education

Access Training and Employment Centre (ATAC)

Collingwood: Access Training and Employment Centre, 2002

http://www.equityresearch.org.au/women_in_apprenticeships_in_2001_report.pdf

Excerpt from introduction:

This research has been undertaken for the Victorian Office of Training and Tertiary Education (OTTE) to report on the current position of women in apprenticeships and traineeships in Victoria and participation trends. The report includes a brief analysis of labour market trends by way of background and also provides a context for the Victorian findings by providing information on national participation trends. The presentation of the findings and the discussion is supported by references to relevant literature and research which is listed at the back of the report. The new apprenticeship system needs to be closely monitored to enable the system to achieve a more equitable uptake of training and more equitable outcomes right across the labour market and the community. The recent Victorian statistics contained in this report reflect national trends. Despite the new opportunities for women to participate in structured training, there continues to be significant gender segregation. Overall, there are more men undertaking apprenticeships and traineeships than women. In Victoria, the proportion is approximately 9:5. Women are under-represented in traditional types of apprenticeships and over-represented in traineeships. They undertake shorter contracts and a greater proportion of part-time contracts compared to men. Although the concentration in training in traditional trades has reduced overall, women's participation in both apprenticeships and traineeships is concentrated in a small number of occupations such as elementary sales and intermediate service. Men's participation is also concentrated in traditional trades, elementary sales and intermediate service, but not to the same extent. Women's participation also tends to be at a lower level than men's, particularly in apprenticeships and their participation in training generally tends to be shorter in duration.

Work and family issues: Trends and projections

Hall, Philippa

Sydney: NSW Department for Women, 2000

Description from website:

The area of work and family seems to generate a lot of grand rhetoric. There's also quite often a marked lack of correspondence between what is said and what is done about family-friendly work arrangements. The Department for Women has funded a project (carried out by Families at Work for the NSW Labour Council) called *Rhetoric and Reality?* exploring just that lack of correspondence. The report of the project will soon be published. It certainly reminded me of the comment by Jan L A van de Snepscheut that: "In theory there is no difference between theory and practice but in practice there is". The Department for Women and other agencies have successfully bid for an ABS Supplementary Survey to be run later this year on work and family issues, and that should provide a better basis for assessing what is really happening and what would lead to improvements in work/family fit.

APPENDIX: RESEARCH SOURCES

Databases:

Access Training and Employment Centre (ATEC) (Australia)

<http://www.equityresearch.org.au>

Ask Eric Education Information/Syracuse University (USA)

<http://ericir.syr.edu>

Chiang Mai University (Thailand)

<http://www.chiangmai.ac.th>

CINTERFOR – Inter-American Research and Documentation Centre on Vocational Training (International)

<http://www.cinterfor.org>

Colorado State University – Cooperative Extension (USA)

www.ext.colostate.edu

Department for Education and Skills (UK)

<http://www.dfes.gov.uk>

Department for Education Tasmania (Australia)

<http://www.education.tas.gov.au>

Edith Cowan University (Australia)

<http://www.ecu.edu.au>

ERIC Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE) (USA)

<http://ericacve.org>

European Centre for the Development of Vocational Training (Greece)

<http://www.cedefop.eu.int>

ID21 – Communicating Development Research (UK)

<http://www.id21.org>

International Labour Organization (International)

<http://labordoc.ilo.org>

National Center for Education Statistics (USA)

<http://nces.ed.gov>

Tel Aviv University (Israel)

<http://www.tau.ac.il/>

UNESCO (International)

<http://unesdoc.unesco.org>

University of Glasgow – Publication Links (Scotland)

[Http://www.scre.ac.uk/is/webjournals.html](http://www.scre.ac.uk/is/webjournals.html)

University of Technology Sydney (Australia)

<http://www.uts.edu.au>

VOCED (Australia)

<http://www.voced.edu.au/>

Journals:

Australian Vocational, Educational and Training Research Association Archives (Australia)

<http://www.avetra.org.au/confarchives.htm>

Gender and Education (UK)

<http://www.tandf.co.uk>

International Journal of Training and Development (International)

<http://www.ingenta.com>

Journal of Career and Technology Education (USA)

<http://scholar.lib.vt.edu>

Triangle Journals (UK)

<http://www.triangle.co.uk>

Newsletters/Bulletins:

Converse & Company (Online Newspaper of Women in Adult and Vocational Education, WAVE) (Australia)

<http://www.converse.com.au>

Guardian Unlimited (UK)

<http://education.guardian.co.uk>

Website:

Australian National Training Authority (Australia)

<http://www.anta.gov.au>

Higher Education Research and Development Society of Australasia

<http://www.ecu.edu.au/conferences/herdsa/>

Monster Technology – online (USA)

www.technology.monster.com

National Coalition for Women and Girls in Education (USA)

<http://www.ncwge.org>

National Woman's Law Center (USA)

<http://www.nwlc.org>

New South Wales Department for Women (Australia)

<http://www.women.nsw.gov.au>

New South Wales Department of Education and Training (Australia)

<http://www.tafensw.edu.au>

Office of Training and Tertiary Education Victoria (Australia)

<http://www.otte.vic.gov.au>

Regional Centre for Vocational and Technical Education and Training (Brunei Darussalam)

<http://www.voctech.org.bn>

The Commonwealth of Learning (Canada)

<http://www.col.org>

Tradeswomen Now and Tomorrow (TNT) (USA)

<http://www.tradeswomennow.org>

Work for Women-Wider Opportunities for Women (USA)

<http://www.work4women.org>

Workforce Training and Education Coordinating Board (USA)

<http://www.wtb.wa.gov/index.html>

UNESCO-UNEVOC Annotated Bibliographies of Research and Related Literature on Technical and Vocational Education and Training

A publication of the
UNESCO-UNEVOC International Centre

UNESCO-UNEVOC International Centre

Görresstr. 15
53113 Bonn
Germany

Phone: [+49] (228) 2 43 37-0
Fax: [+49] (228) 2 43 37 77
Internet: www.unevoc.unesco.org

The websites listed in this bibliography were
accessed between May and July of 2004.
Links may have changed since that time.

Cover design: www.pinger-eden.de
Printed by: www.druckcenter.de
ISSN 1814-1129

© UNESCO 2004

The UNESCO-UNEVOC International Centre is
UNESCO's specialised centre for technical and
vocational education and training (TVET).

From its location in Bonn, Germany, it serves
UNESCO Member States worldwide to develop and
strengthen TVET.

It mainly focuses on:

- >> TVET system development;
- >> Improving access to TVET; and
- >> Assuring quality of TVET.

The UNESCO-UNEVOC International Centre
uses tools such as:

- >> Networking;
- >> Knowledge sharing and publications;
- >> Inter-agency collaboration and partnerships; and
- >> Human resource development.

The most prominent of its networks is the
UNEVOC Network, which consists of more than
230 specialised TVET institutions in over
150 countries worldwide.

For more information about the UNESCO-UNEVOC
International Centre see: www.unevoc.unesco.org