



**Australian Workforce  
and Productivity Agency**

[www.awpa.gov.au](http://www.awpa.gov.au)

# ALTA Forum – AWPA ICT Workforce Study

Ms Barbara Turnbull  
Director – Sectoral Research Reports

4 April 2013  
Victoria University, Melbourne

# The Australian Workforce and Productivity Agency

## The Agency

- administers the National Workforce Development Fund
- conducts skills and workforce research
- drives engagement between industry, training providers and government
- develops and monitors sectoral skills and workforce development
- provides independent advice on sectoral and regional skills needs
- leads initiatives for the improvement of productivity, management, innovation and skills utilisation in Australia



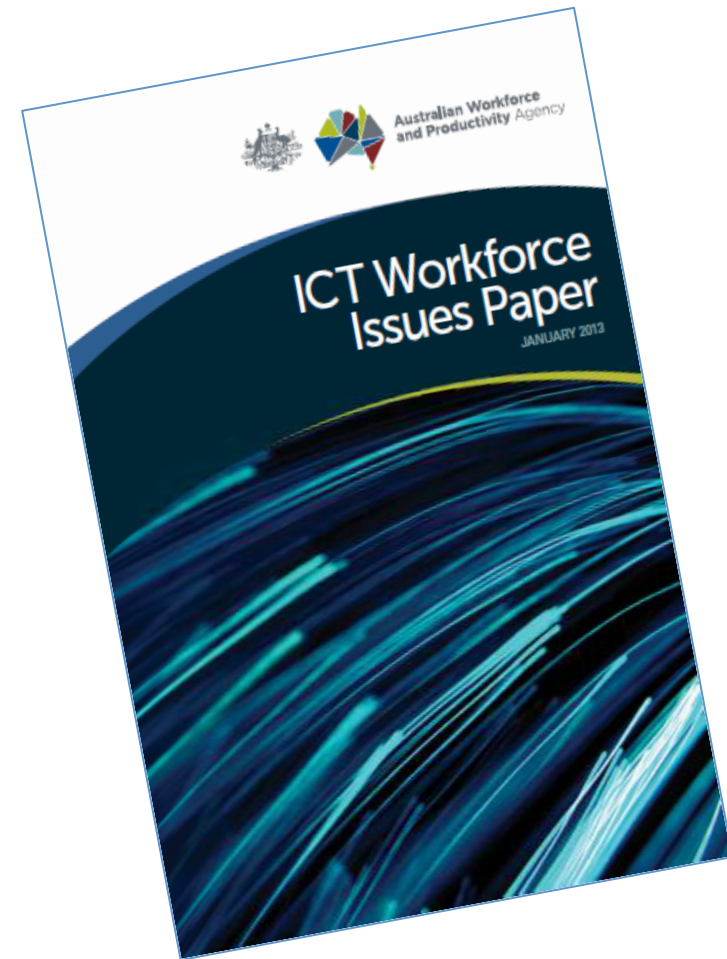
**Expert Board** – members from industry, academia, economics, representation of employees, education and training

**Back row (L to R):** Philip Bullock (Chair), Ged Kearney, Peter Anderson, Heather Ridout, Dr John Edwards

**Front row:** Marie Persson, Prof Gerald Burke, Dr Michael Keating AC, Keith Spence

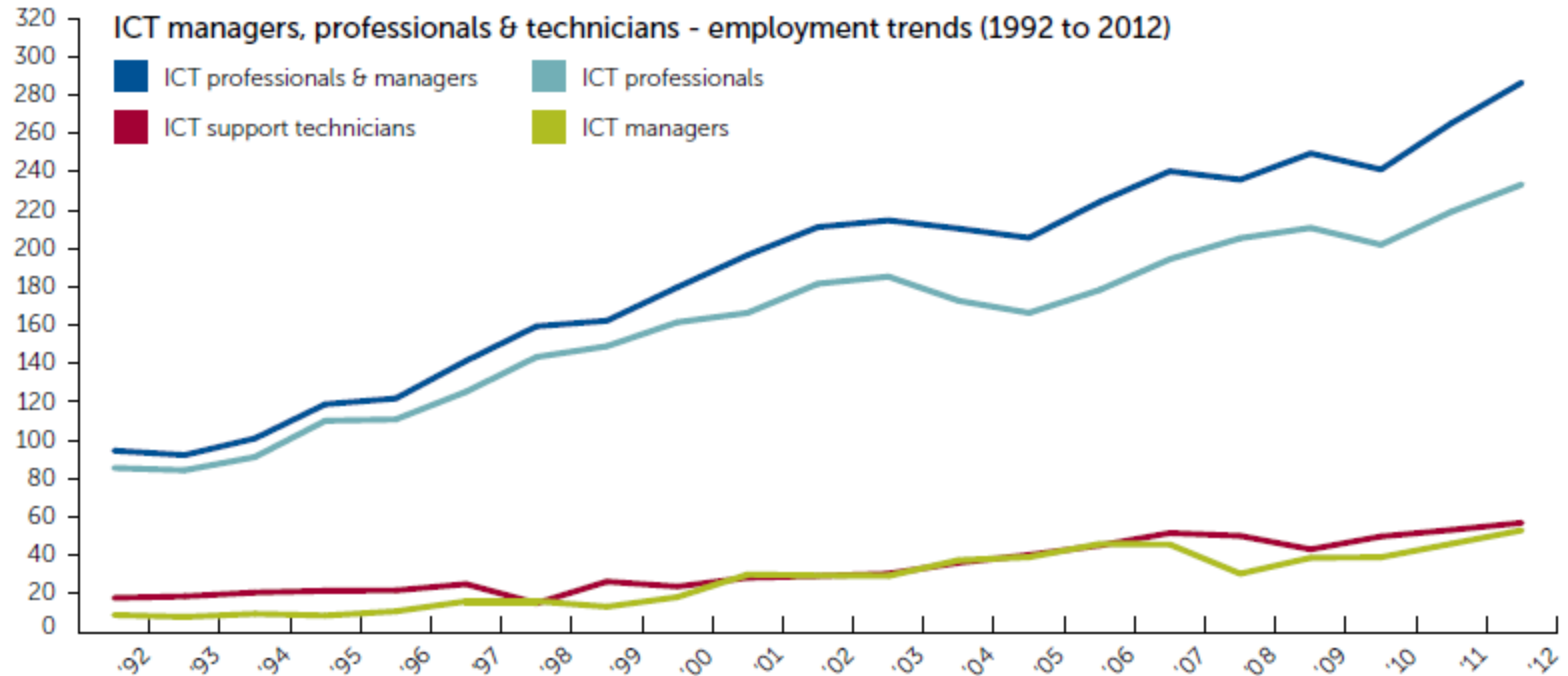
# The AWPA ICT workforce study

- A key part of the Agency's focus is assessing current and emerging workforce skills needs in specific industry sectors.
- Outcome will be a set of workforce development strategies to improve ICT skills development.
- Other planned studies include on Food and Engineering sectors.



# ICT employment

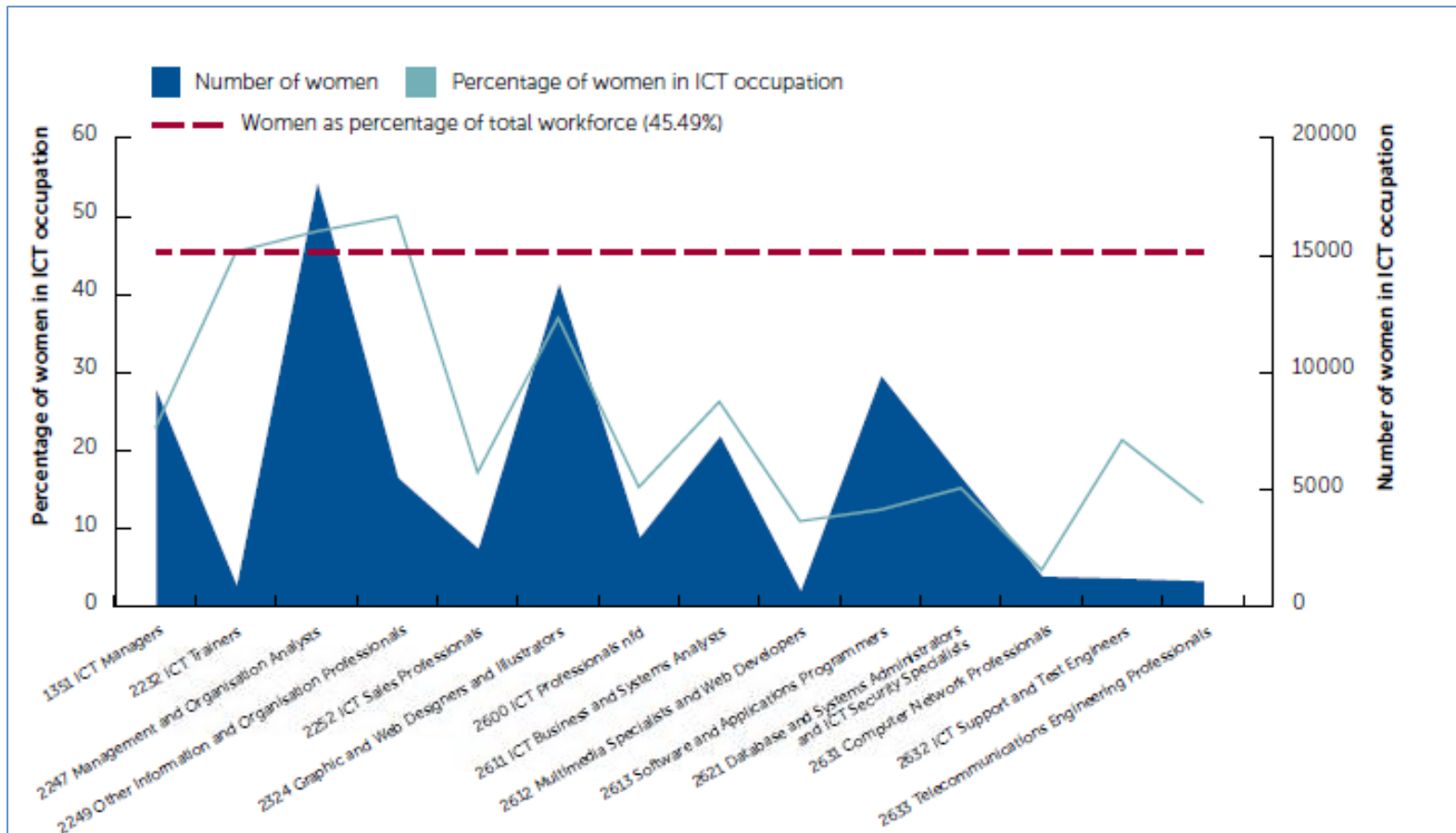
Figure 1: Employment trends across ICT employment strata



Source: DEEWR, ICT trend data based on ABS Labour Force Survey.

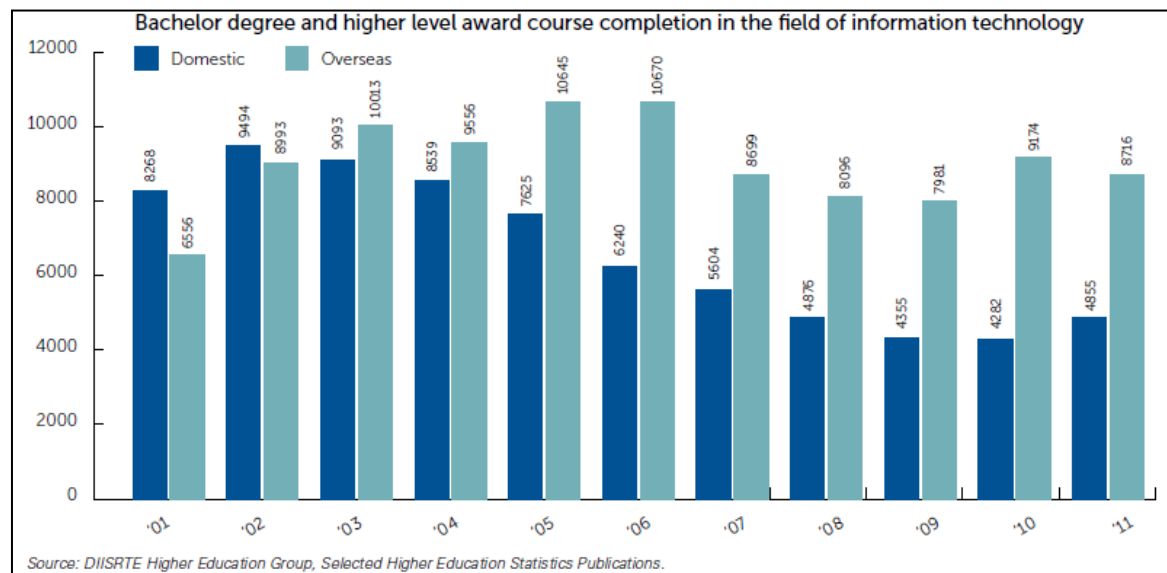
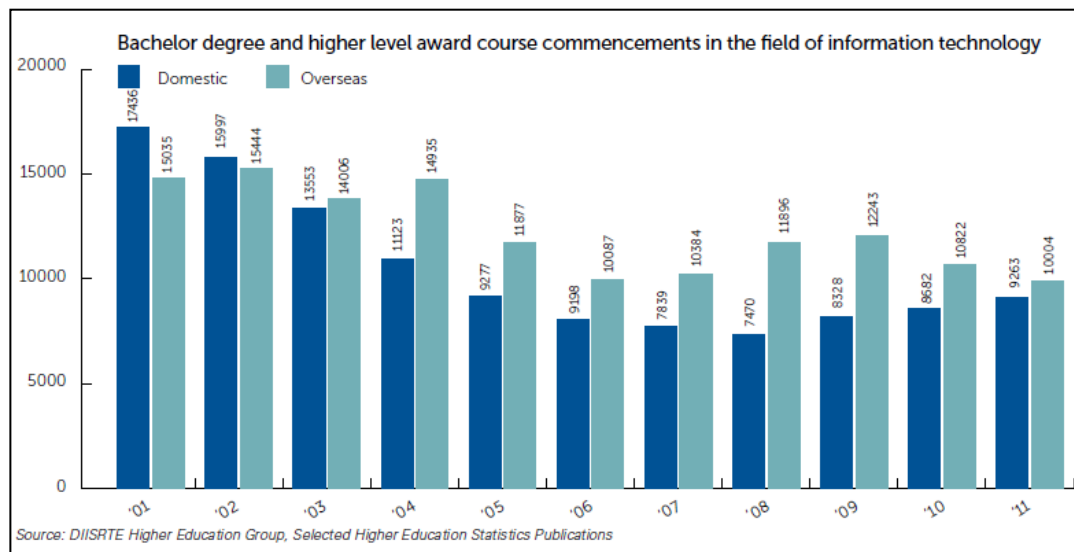
# ICT employment by gender

## Percentage of women in ICT Management and Professional occupations

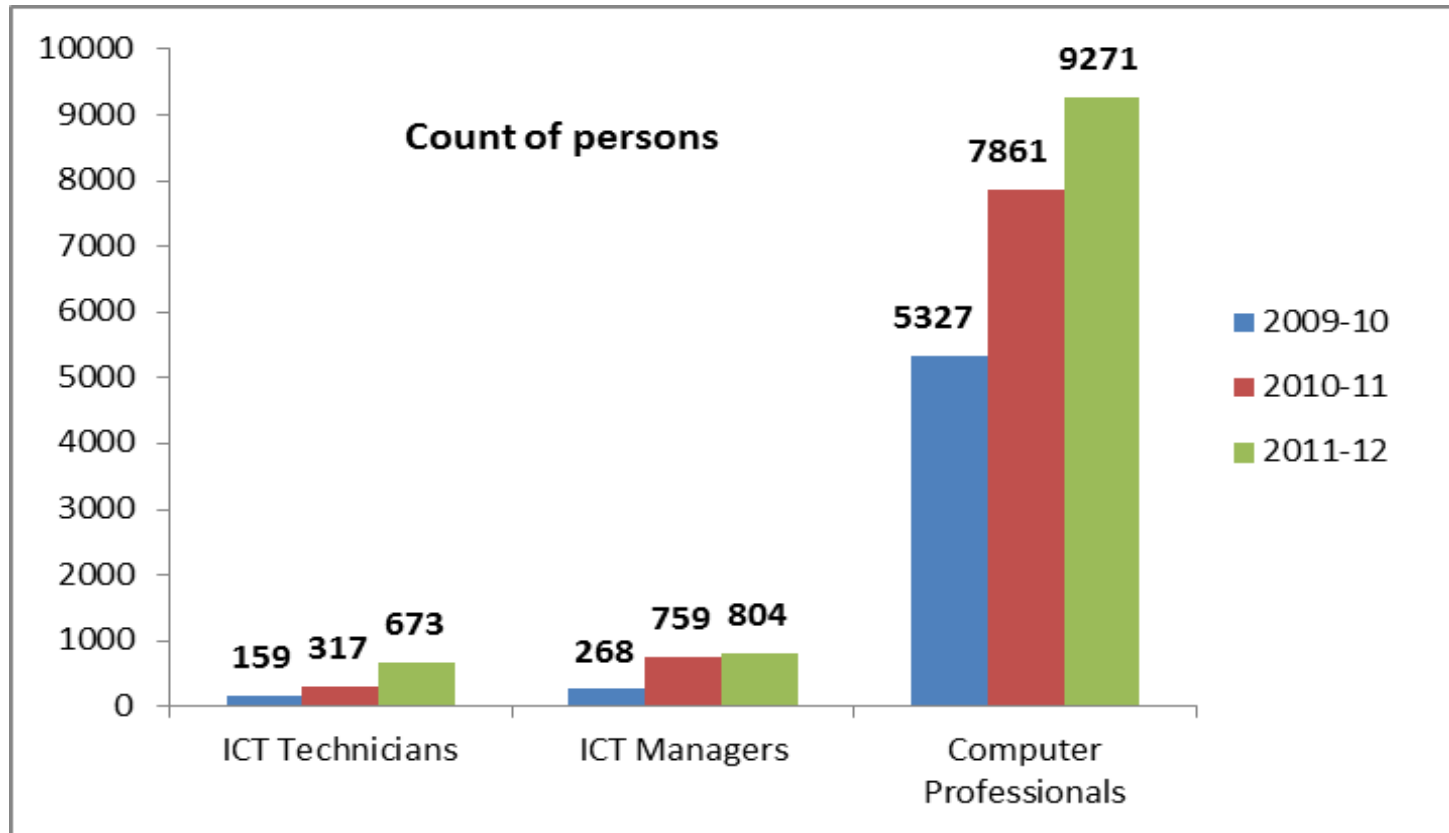


Source: ACS, Australian ICT Statistical Compendium 2012.

# Commencement and completions in ICT courses



# Temporary migration



Source: Department of Immigration and Citizenship data, 2012.

# Key issues

1. Student perceptions of ICT careers are largely negative, engagement in STEM subjects remains low, and there is little confidence in the provision of ICT education in schools.
2. Some employers are not confident that the tertiary education system can supply competent, confident, work ready graduates.
3. Women, Indigenous Australians and mature age workers are underrepresented in ICT employment.
4. Industry does not sufficiently invest in workforce development and upskilling.
5. Improving the stock of digital literacy skills across the population is integral for the uptake of technology in a range of industries.



# What can we do?

## 1. ICT Skills Pipeline

### Addressing the issue

- Develop positive, assertive and inclusive promotional vehicles for ICT careers
- Ensure secondary school students are effectively engaged in technology and STEM subjects through the delivery of high quality schooling programs
- Implement industry-school partnerships including school visits, curriculum support and specialist camps.

## 2. ICT graduates are not “work ready”

### Addressing the issue

- Universities collaborate with industry to offer short e-learning modules aimed at both current students and the existing workforce on new developments in ICT skills
- Expand existing Work Integrated Learning (WIL) programs to broaden coverage
- Support for other models of professional experience for students where necessary
- Work with industry to scope opportunities for a professional experience requirement for early-career workers.

# 3.Low participation rates for women, Indigenous Australians, mature aged workers and people with disabilities

## Addressing the issue

- Engage girls early, and challenge perceptions of ICT as a sedentary, dull career
- Consider alternative delivery models for tertiary education that engage the mature-age workforce and other under represented groups
- Expand existing outreach programs that provide mentoring.

## 4. Low investment in training

### Addressing the issue

- Short online modules made available to those already in full-time work
- A cross-sector program that supports workforce development in the ICT industry by featuring case studies, testimonials, presentations
- Support for SMEs to engage in workforce development.

# 5. Digital literacy

## Addressing the issue

- Examine the suitability of the European Computer Driving License certification program for the development of digital literacy skills across the Australian workforce
- Integrating a digital literacy component into all vocational qualifications and higher education courses
- Employers encouraged to include digital literacy components in L&D programs.

# Case study 1: Work integrated learning at Deakin University

- Option of 3-12 month stint or 100 hour duration placement for students in Bachelor of Information Technology
- Deakin provides online and face-to-face workshops during placement
- Participants demonstrate strong employment and career progression outcomes.



## Case study 2: Digital Divas

- A single-sex elective offered to female students in Years 8-11
- Involves curricula, access to informal role models, school visits by professionals
- Participants enjoyed program, changed views on ICT careers, and many considered and ICT career.



*Digital Divas Club*  
*... a new revolution*

**Thanks**

**Any questions?**

**[ictstudy@awpa.gov.au](mailto:ictstudy@awpa.gov.au)**