Information & Communications Technology (ICT)

Tertiary Education Global Enrolment Trends

&

Australasian Labour Market Trends

NACCQ Conference July 2009

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Content:

Trends:

- Tertiary Enrolment
  - *NZ & global*
  - *Institutes of Technology & Polytechnics (ITP)*
  - *Information & Communications Technology (ICT)*
  - *Women in Technology - Global*
  - *Wintec School of IT (Diploma & Bachelor)*

- *ICT Job Market*
  - *Australasia*

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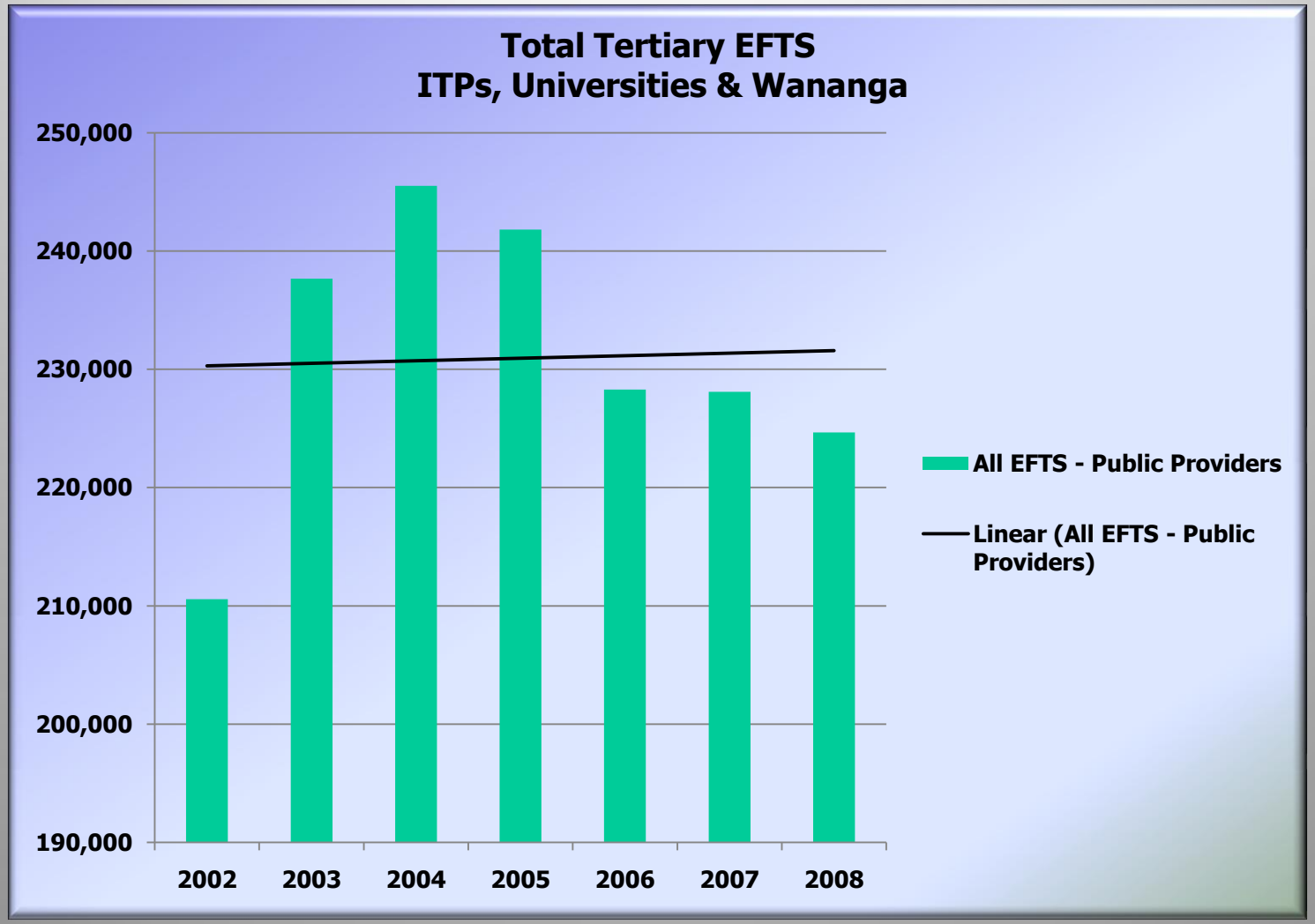
2002 to 2008

7% Increase in EFTS



Education Counts (Accessed May 2009)

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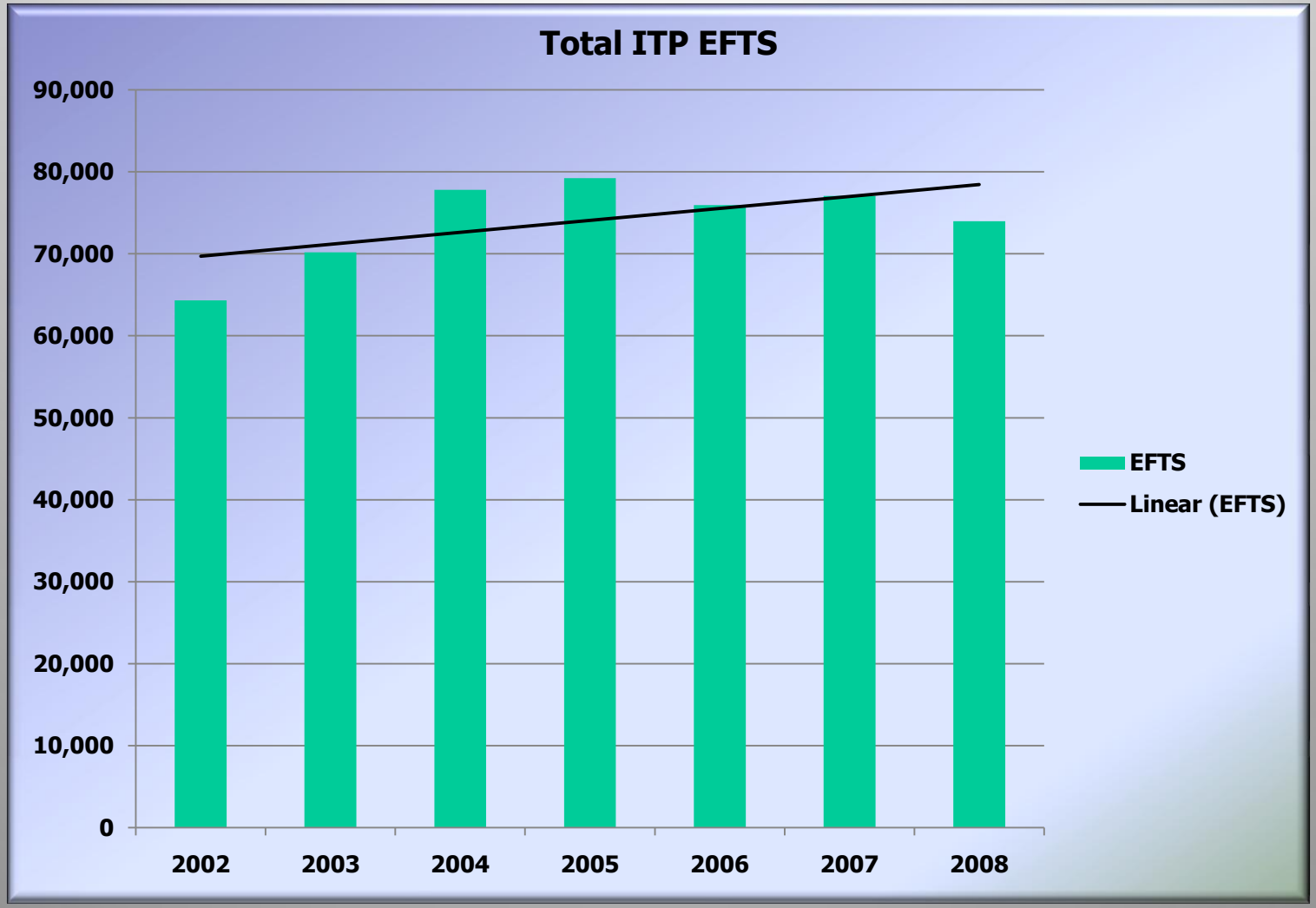
2002 to 2008

15% Increase in EFTS



Education Counts (Accessed May 2009)

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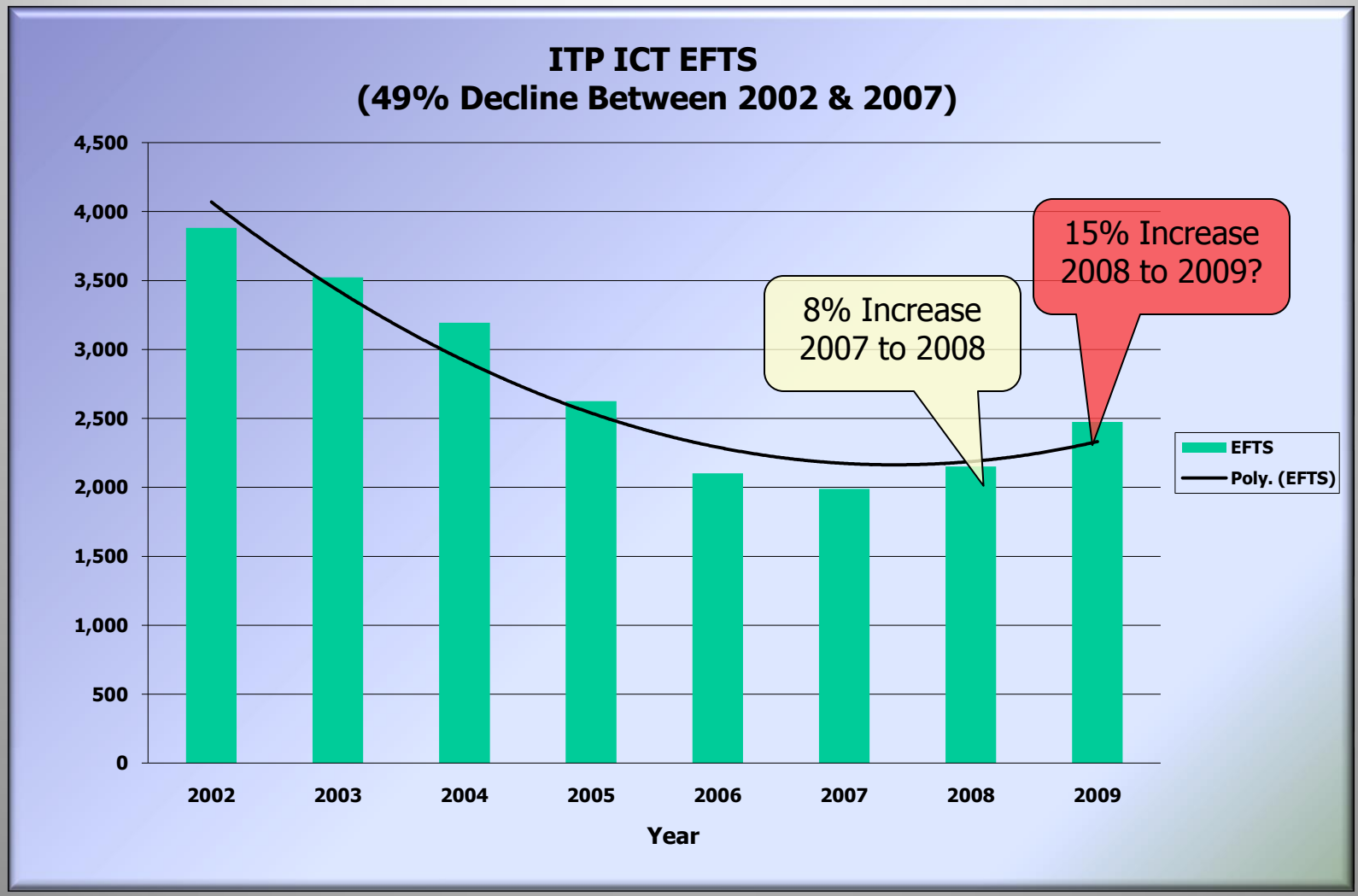
2002 to 2007

49% Decline in EFTS



Source: NACCQ Statistics (Accessed March 2009)

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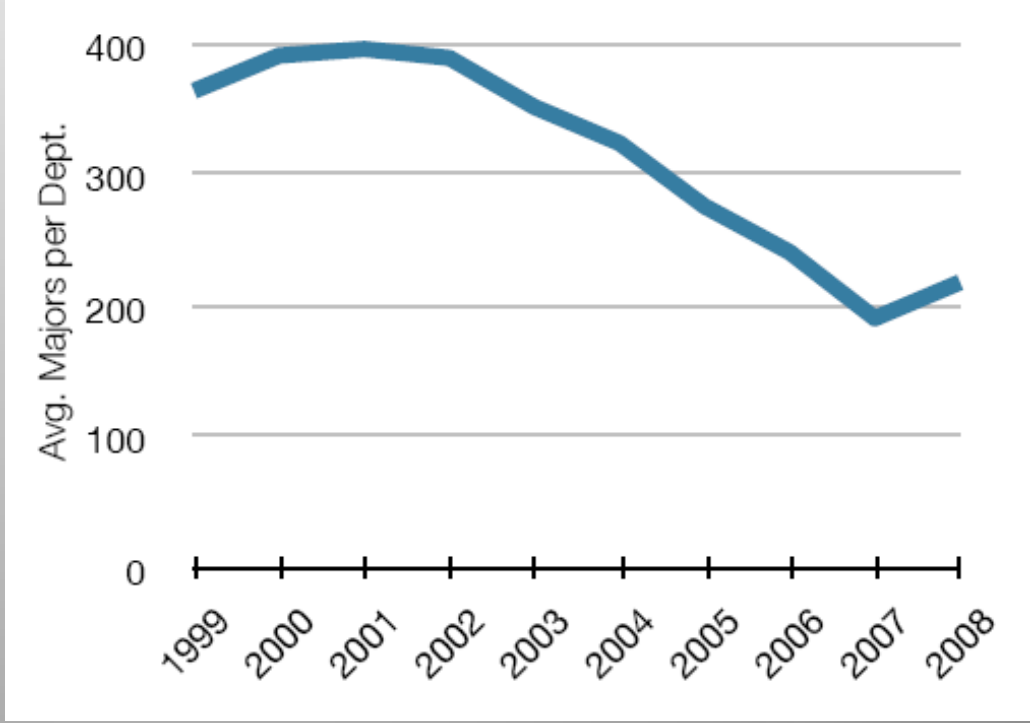
USA - Computer Science Enrolments

8% Increase

NETWORKWORLD

'Computer science major is cool again'
Carolyn Duffy Marsan, 03/17/2009

- U.S. undergraduate majors rise 8.1%, first increase since 2000



CRA Taulbee Report (Accessed April 2009)

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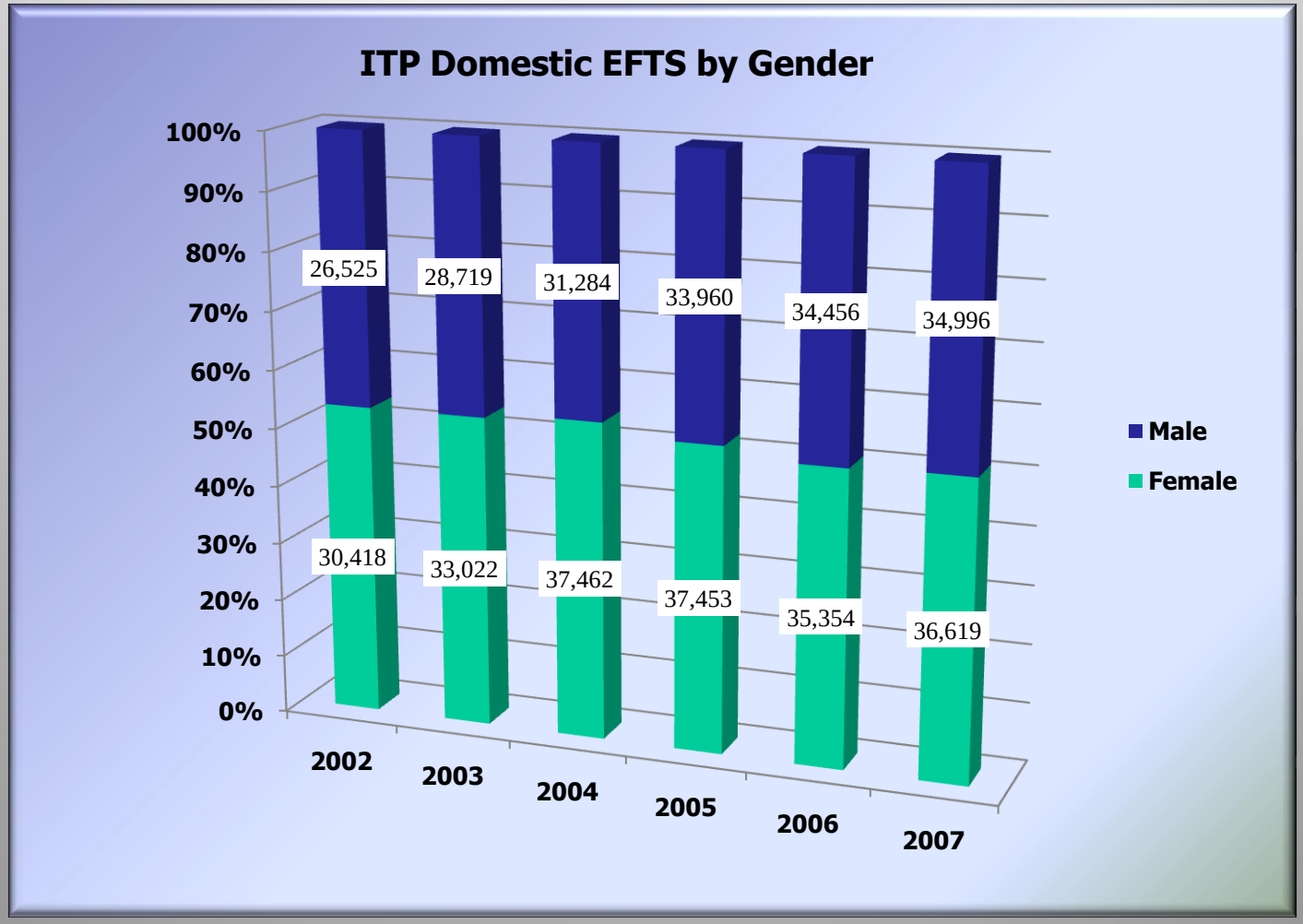
ITP Sector Enrolments by Gender

Approximately 50:50



Education Counts (Accessed March 2009)

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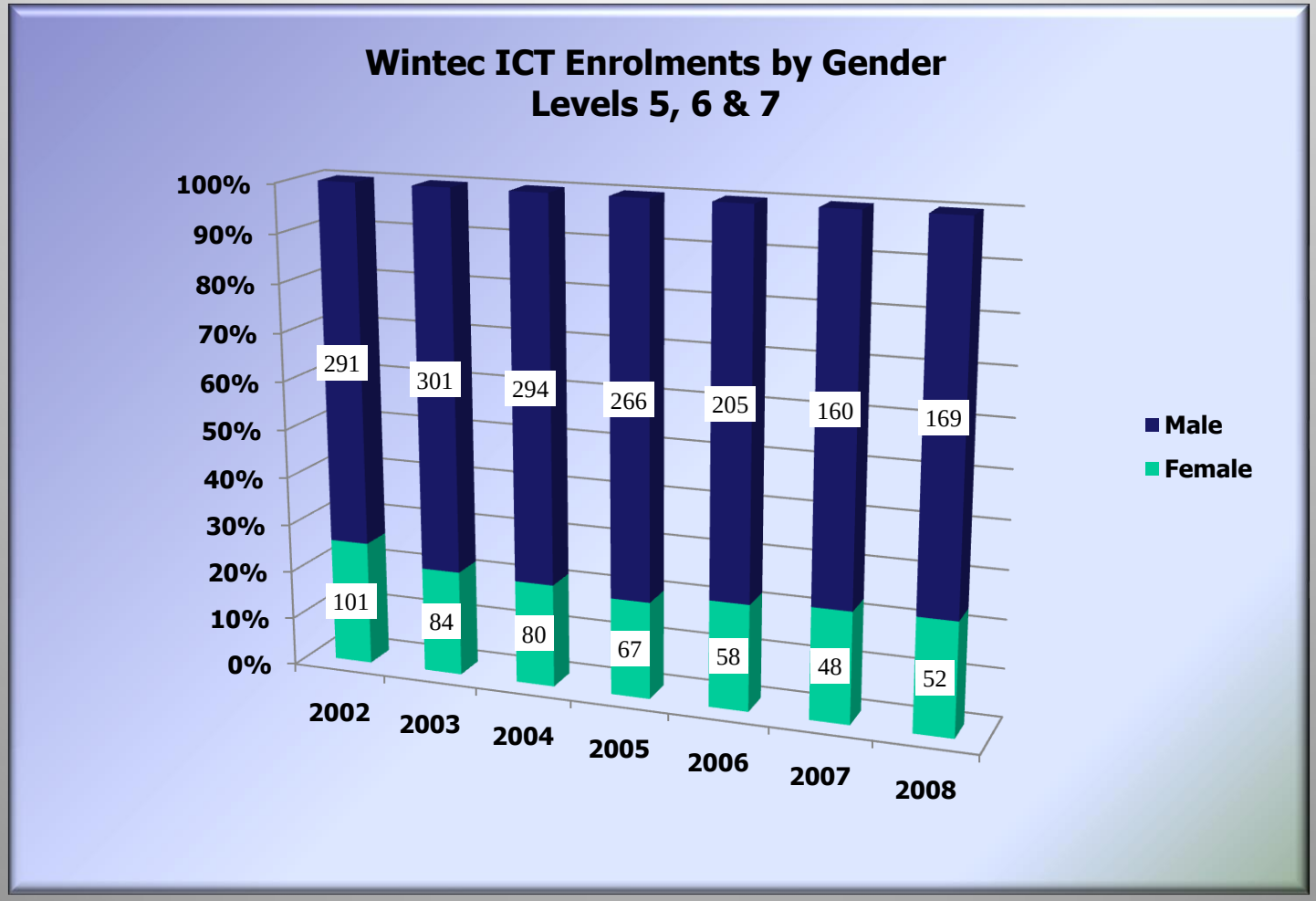
ICT Enrolments by Gender

Approximately 80:20



Source: Student MIS (Accessed March 2009)

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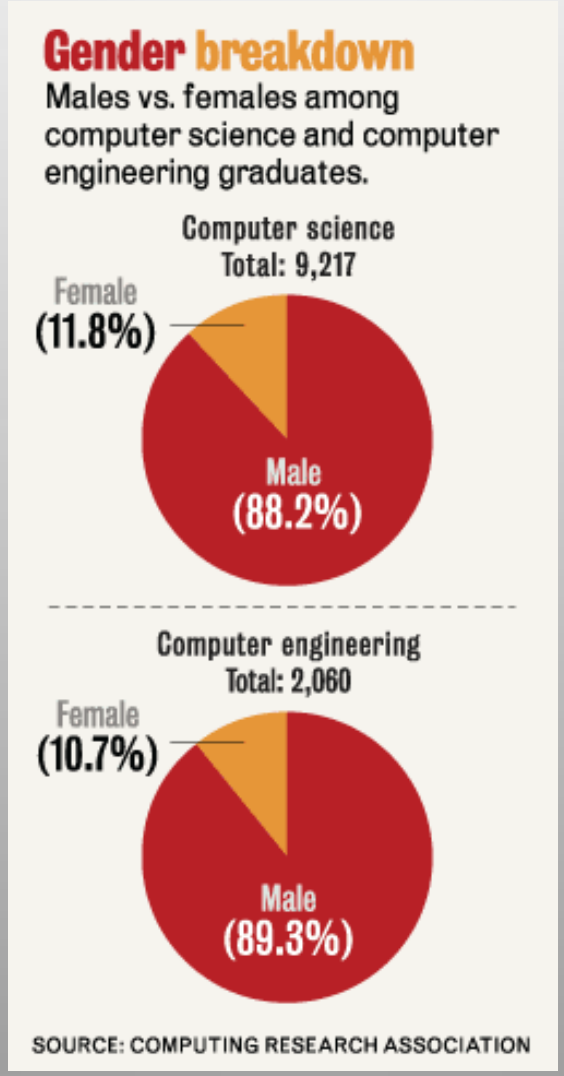
USA Computer Science & Computer Engineering Graduates - Approximately 1 in 10 Female



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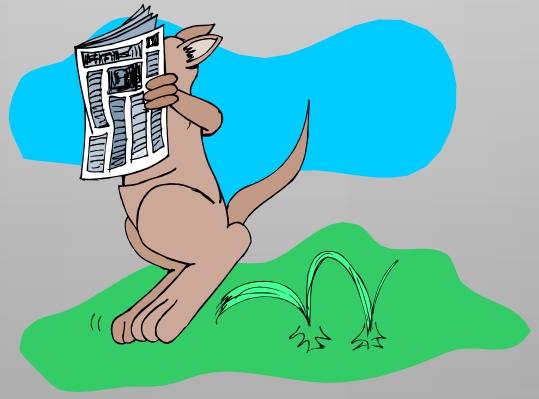
Australia – Women in ICT

- *The proportion of young women selecting a university Information Technology (IT) course is low and has been declining alarmingly in the last few years*

- *VTAC and Higher Education statistics show steady decline in popularity of IT courses since 2000, with young women turning away at a greater rate than young men.*



Swinburne Research: Women in ICT (Accessed April 2009)

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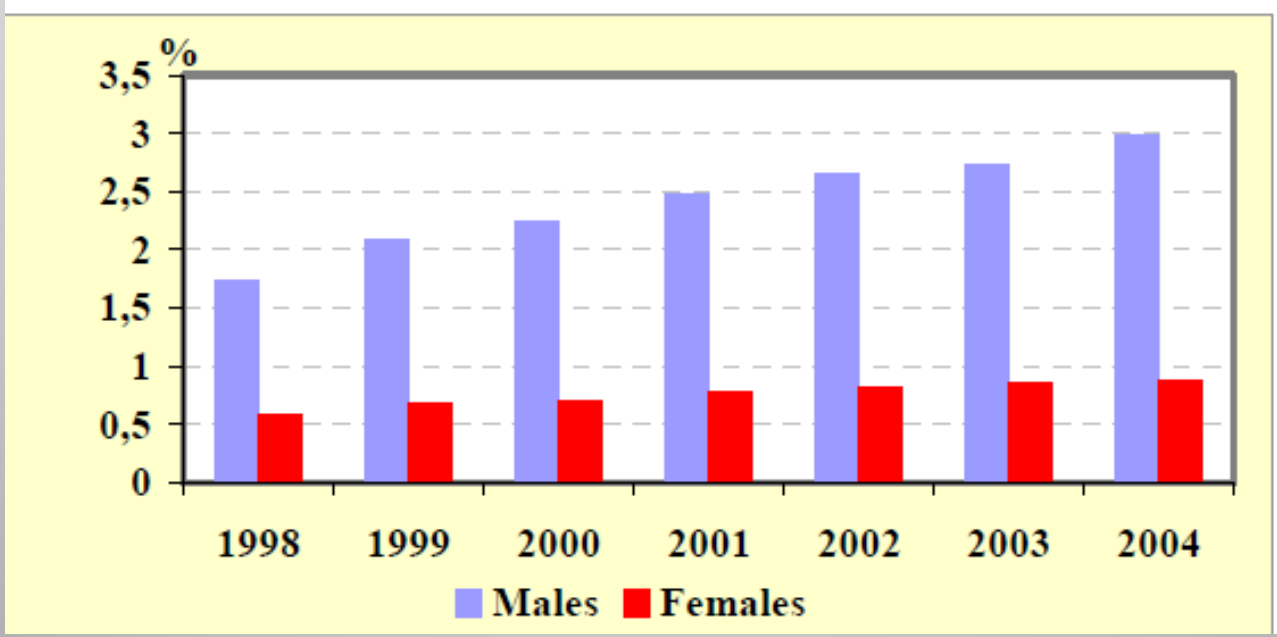
Tertiary Education in ICT
European Female Participation Rates



Percentage of male & female computer science graduates (ISCED 5/6) as a proportion of all graduates, 2007 (Source: EU-RA from eurostat)

*In specific sectors, such as **computing,** female graduates are significantly outnumbered by male graduates.*

European Commission: Women in ICT, Jan 2008 (Accessed April 2009)

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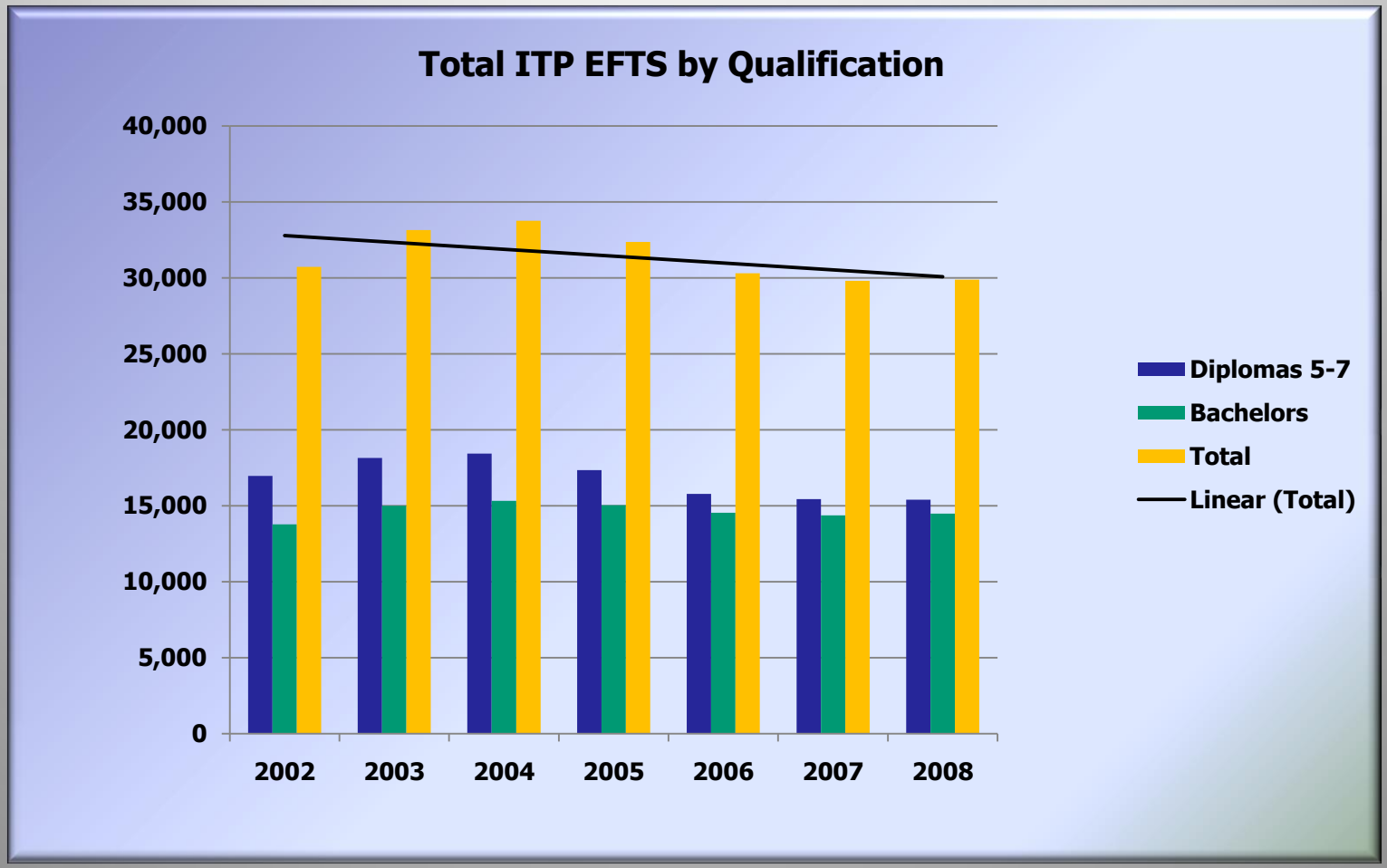
ITP EFTS

2004 (Peak) to 2008

16% Decline in Diplomas 5 to 7 // 6% Decline in Bachelors

(11% Overall Decline)



Education Counts (Accessed March 2009)

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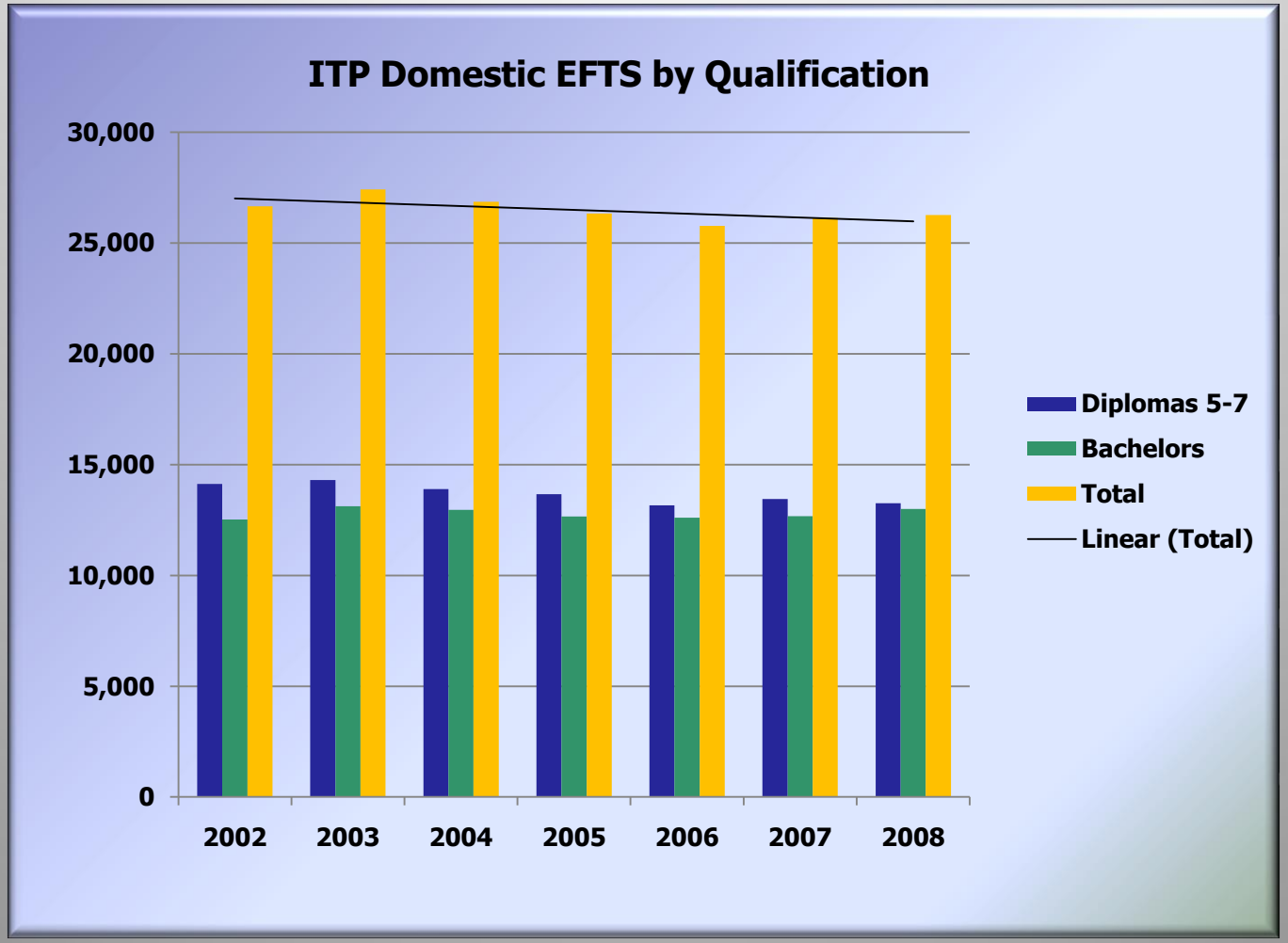
ITP Domestic EFTS

2003 (Peak) to 2008

7% Decline in Diplomas 5 to 7 // 1% Decline in Bachelors

(4% Overall Decline)



Education Counts (Accessed March 2009)

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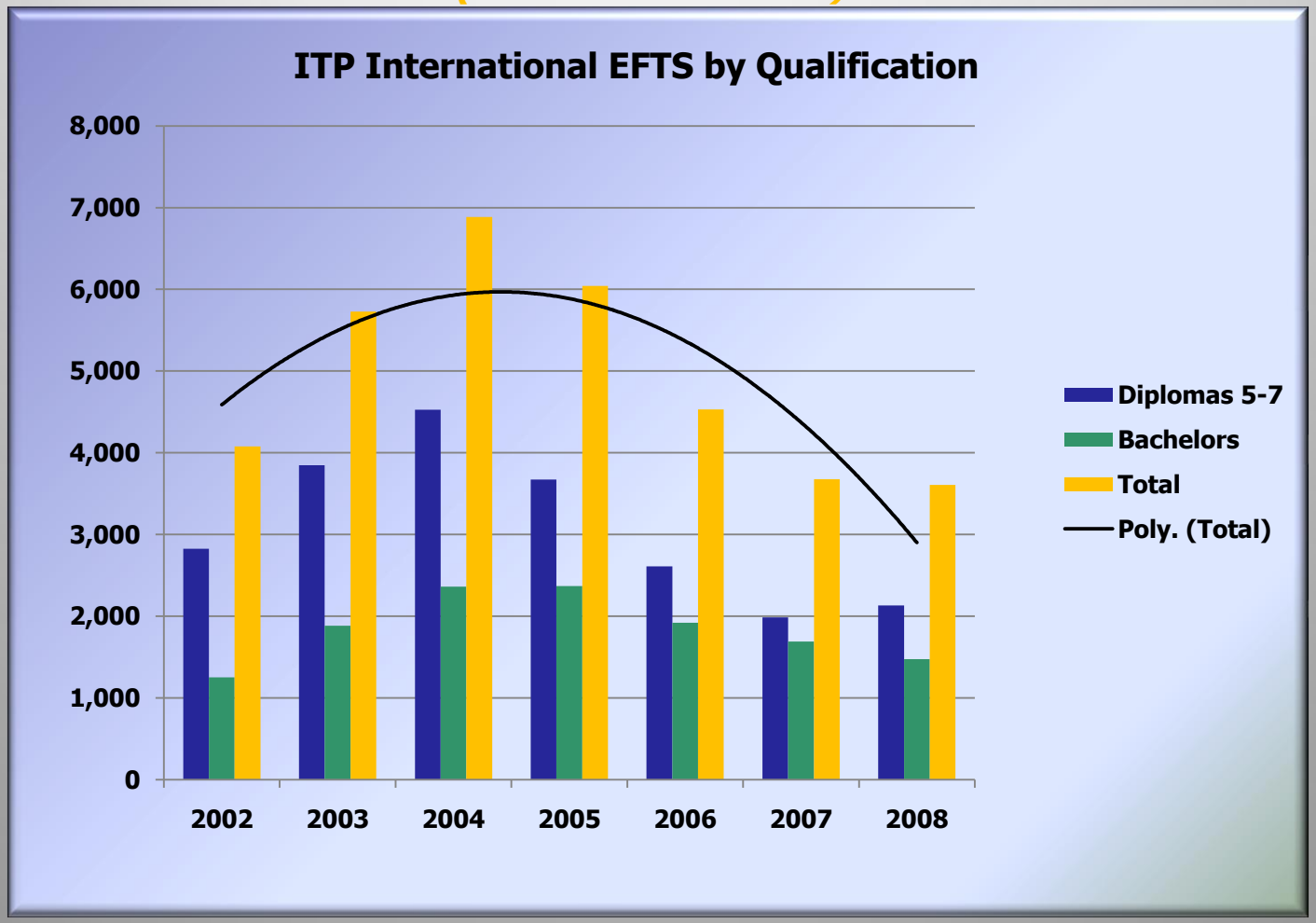
ITP International EFTS

2004 (Peak) to 2008

31% Decline in Diplomas // 38% Decline in Bachelors

(48% Overall Decline)



Education Counts (Accessed March 2009)

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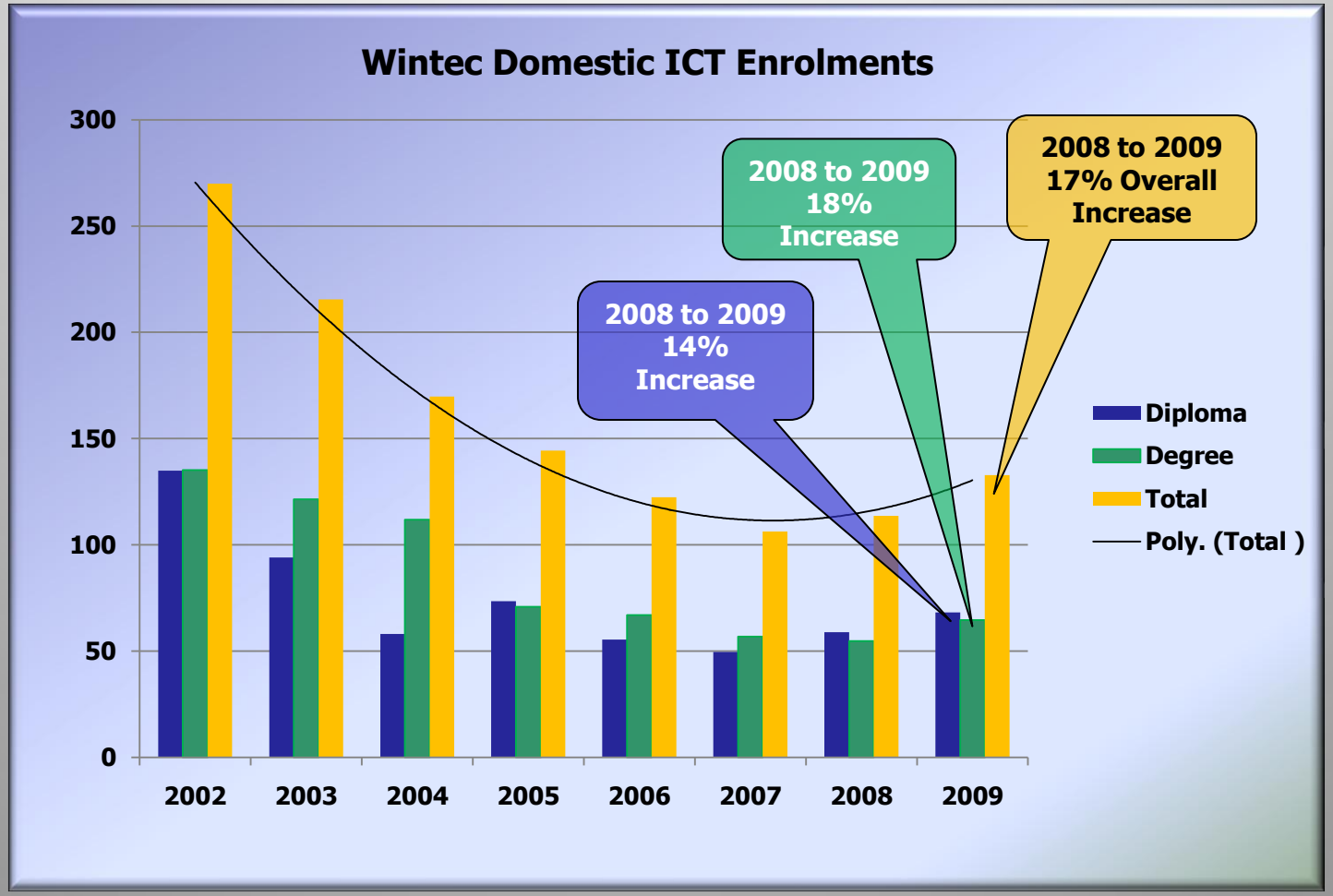
Wintec Domestic ICT EFTS

2002 to 2007

64% Decline in Diplomas // 58% Decline in Bachelors

(61% Overall Decline)



Source: Student MIS (Accessed March 2009)

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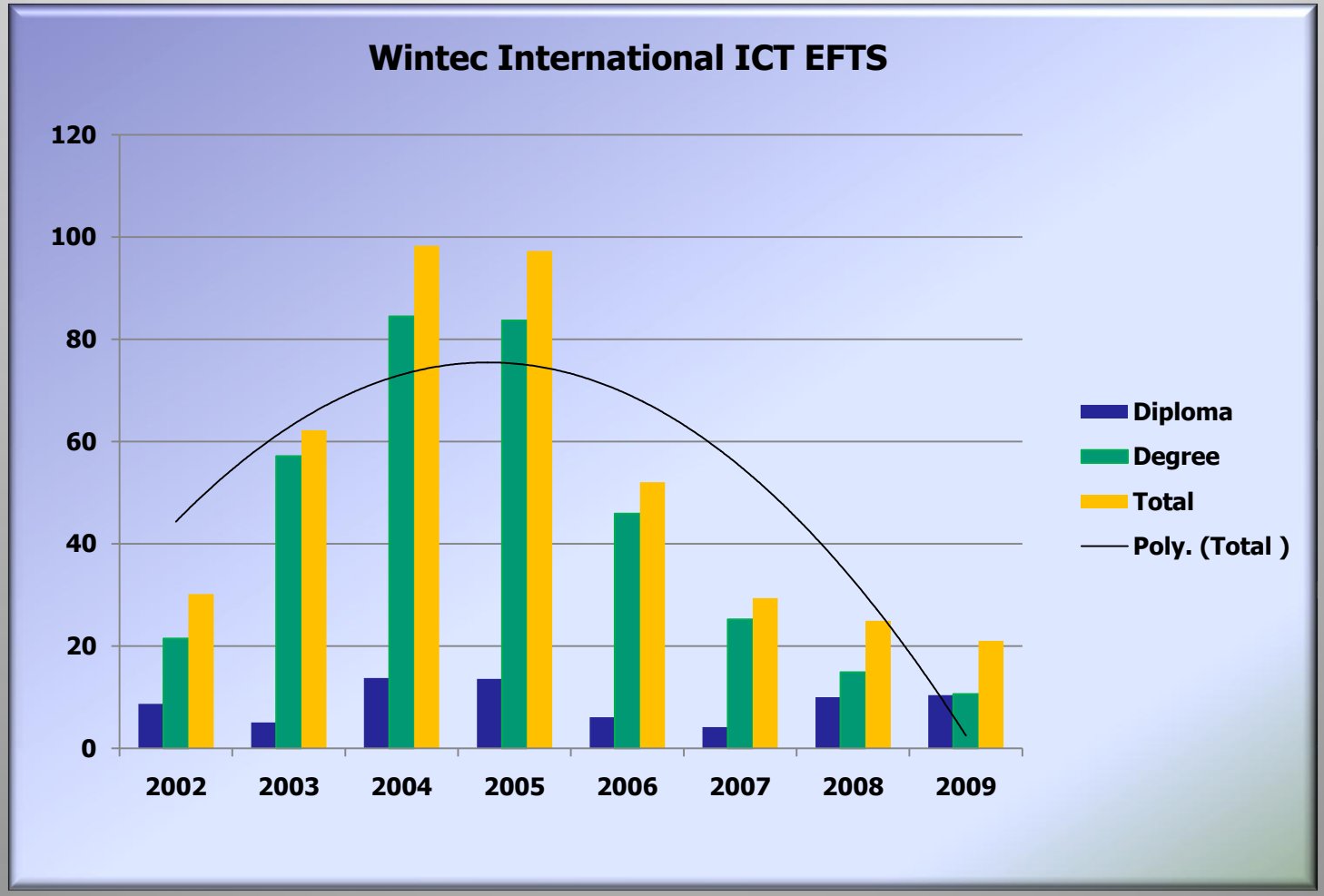
Wintec International ICT EFTS

2004 (Peak) to 2009

29% Decline in Diplomas // 87% Decline in Bachelors

(79% Overall Decline)



Source: Student MIS (Accessed March 2009)

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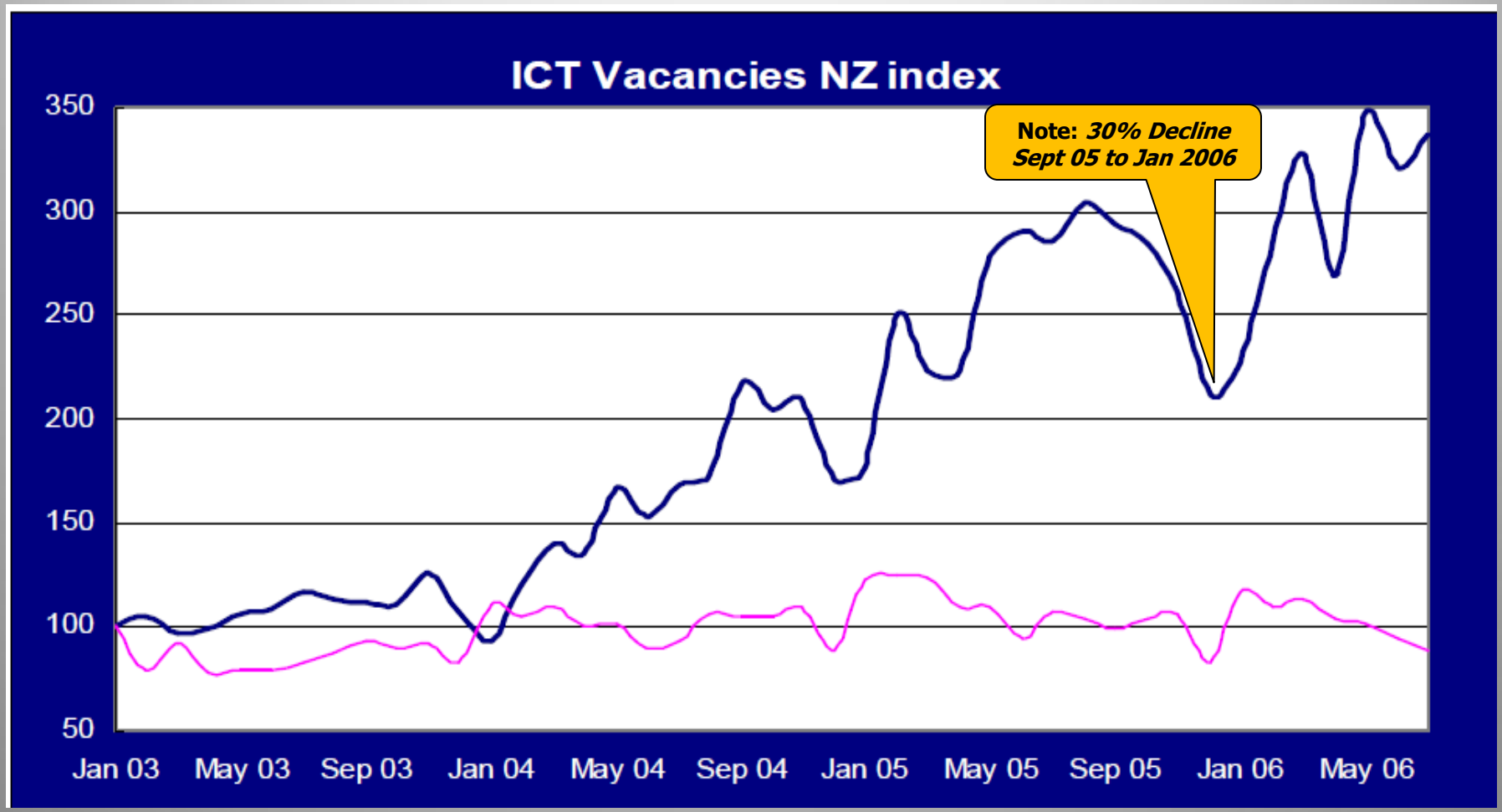
New Zealand ICT Vacancies Index

May 2003 to May 2006

300% increase (Total jobs relatively static)



McCallum, S. Dept. of CS, University of Otago (Accessed April 2009)

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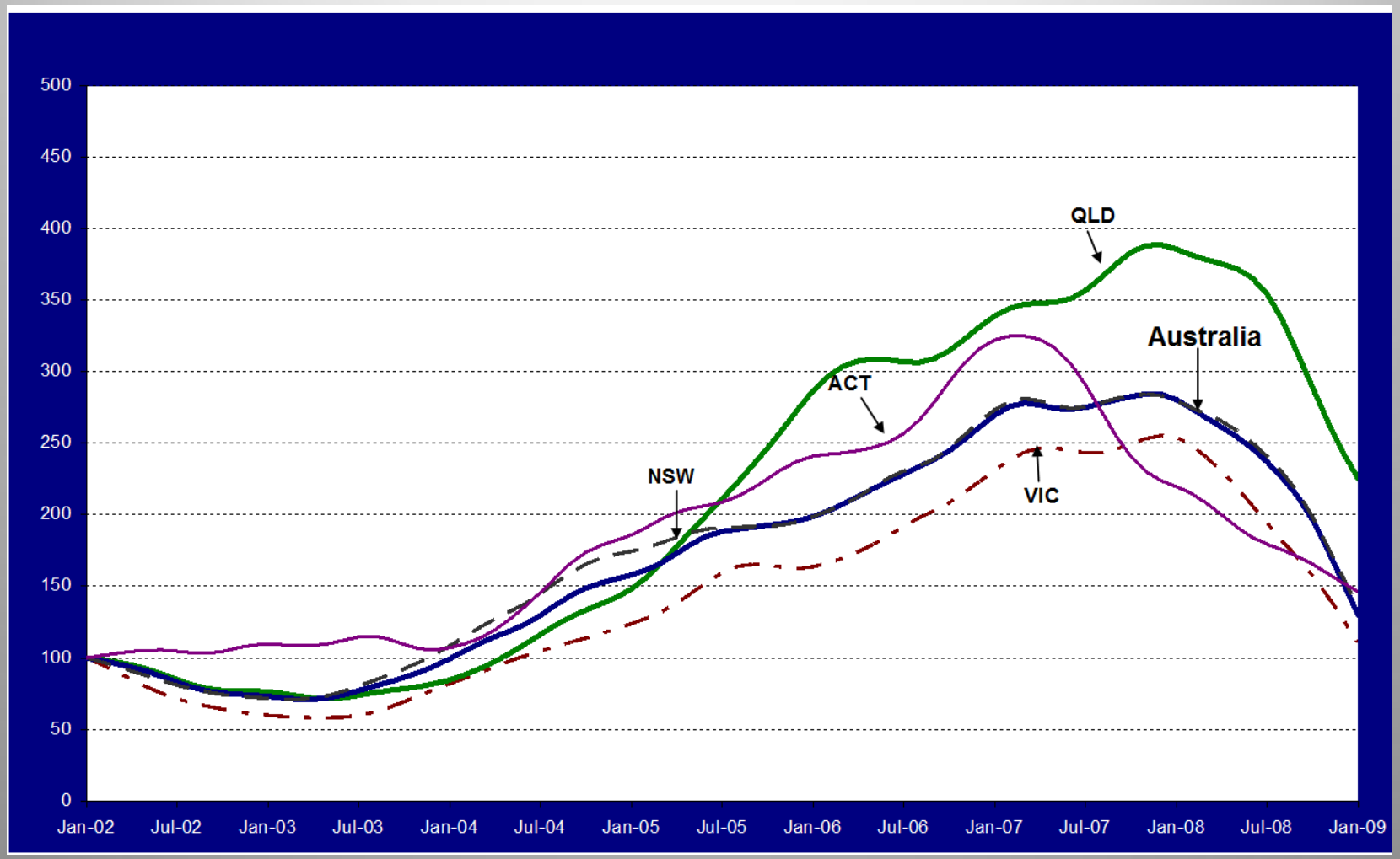
Australia ICT Vacancies Index

Jan 2003 to Jan 2008

300% increase



SkillsInfo Australia (Accessed April 2009)

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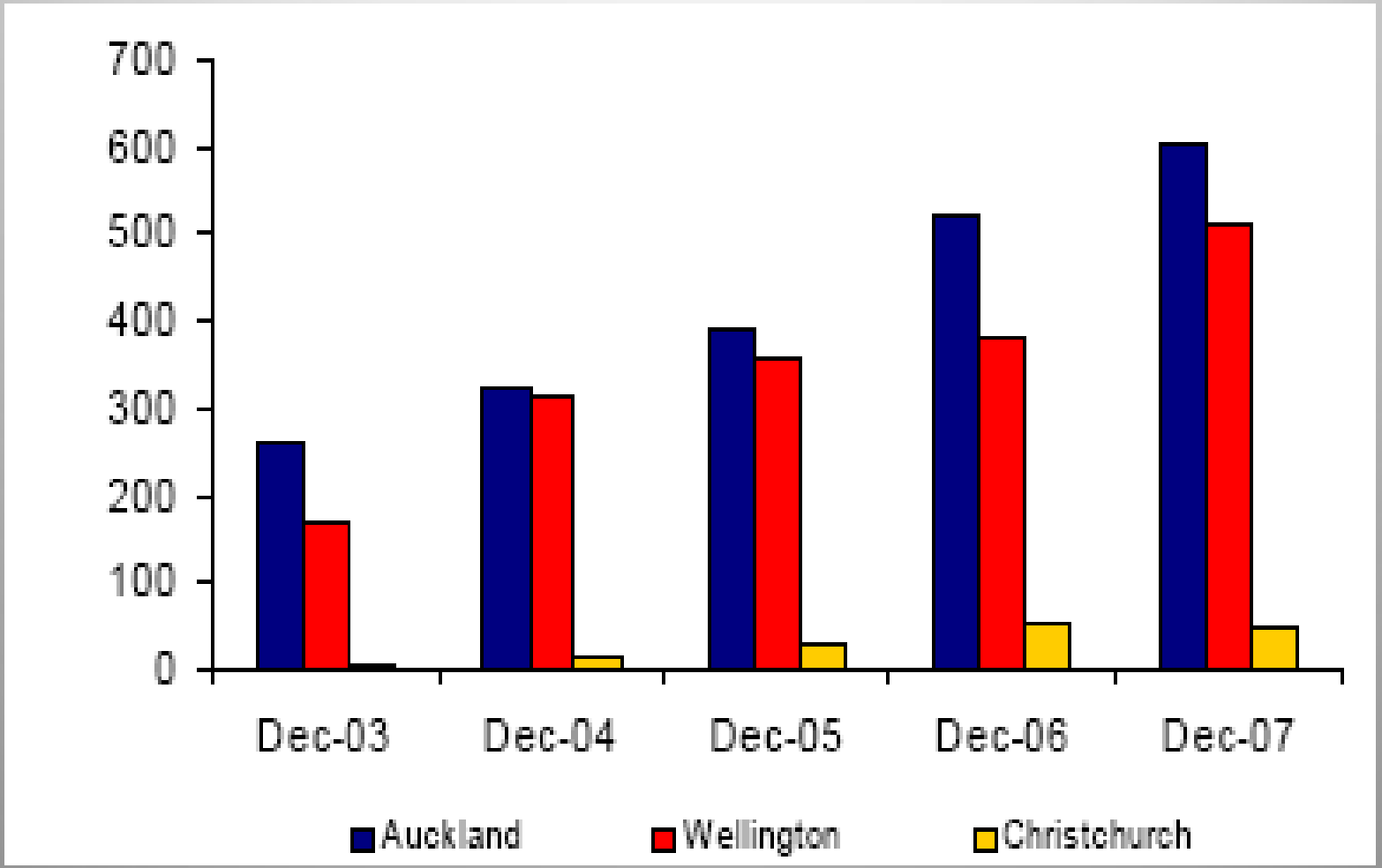
IT Regional Vacancies in NZ

Dec 2006 to Dec 2007

22% Increase



DoL JVM (Accessed May 2008)

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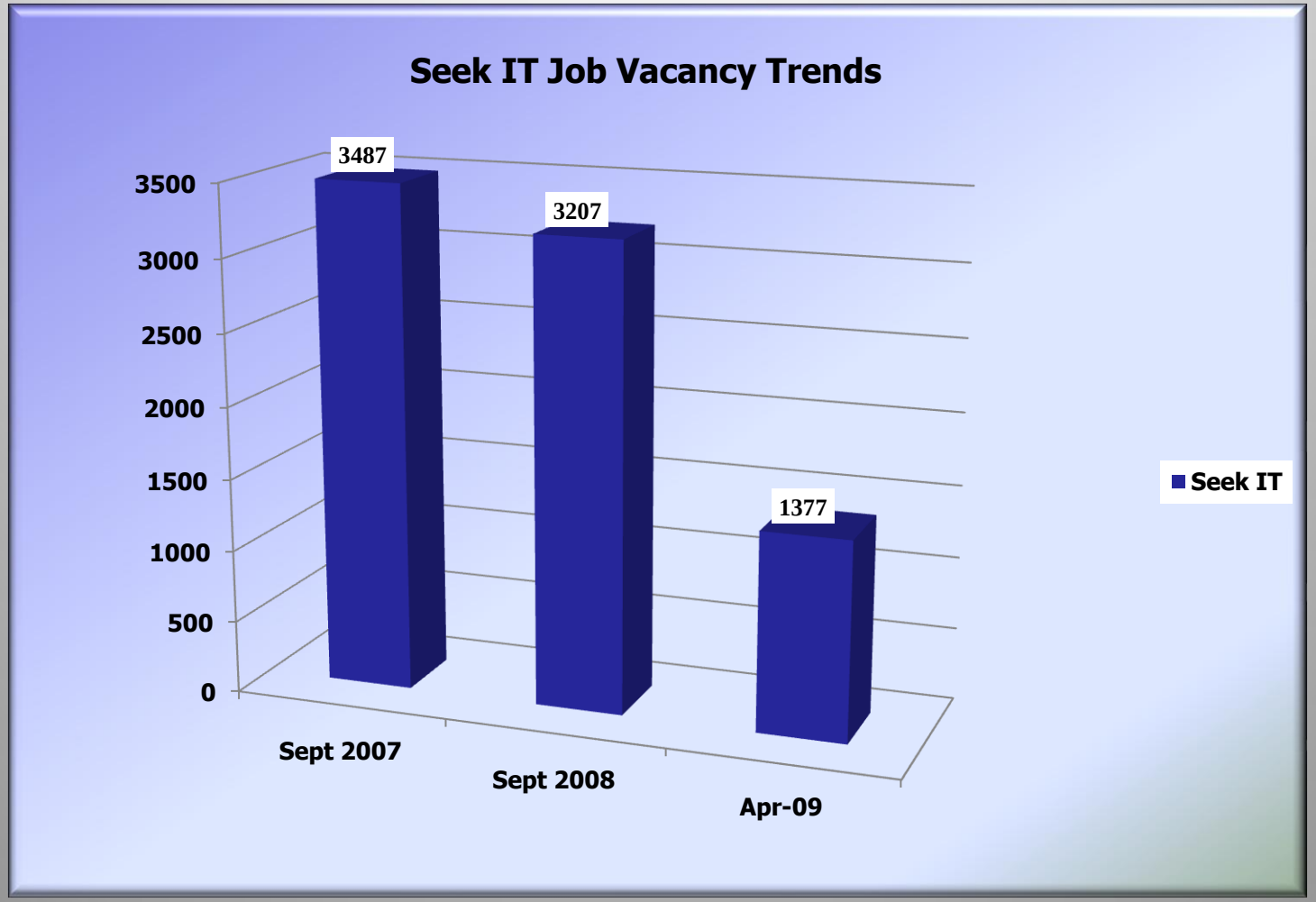
IT Vacancies (NZ)

Sept 2008 to April 2009

57% Decline



Seek IT (Accessed March 2009)

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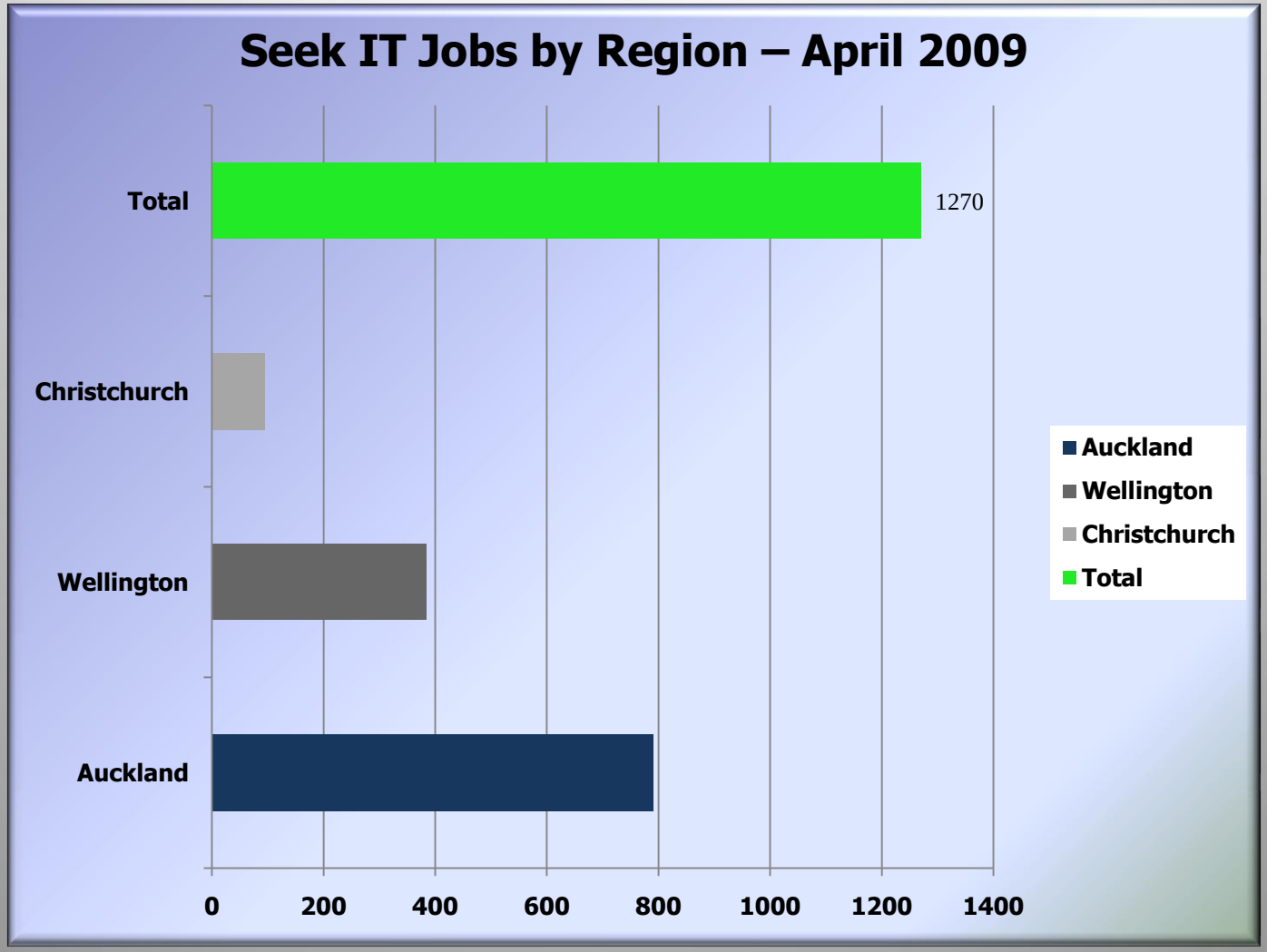
IT Vacancies - Rest of NZ

107



Seek IT (Accessed March 2009)

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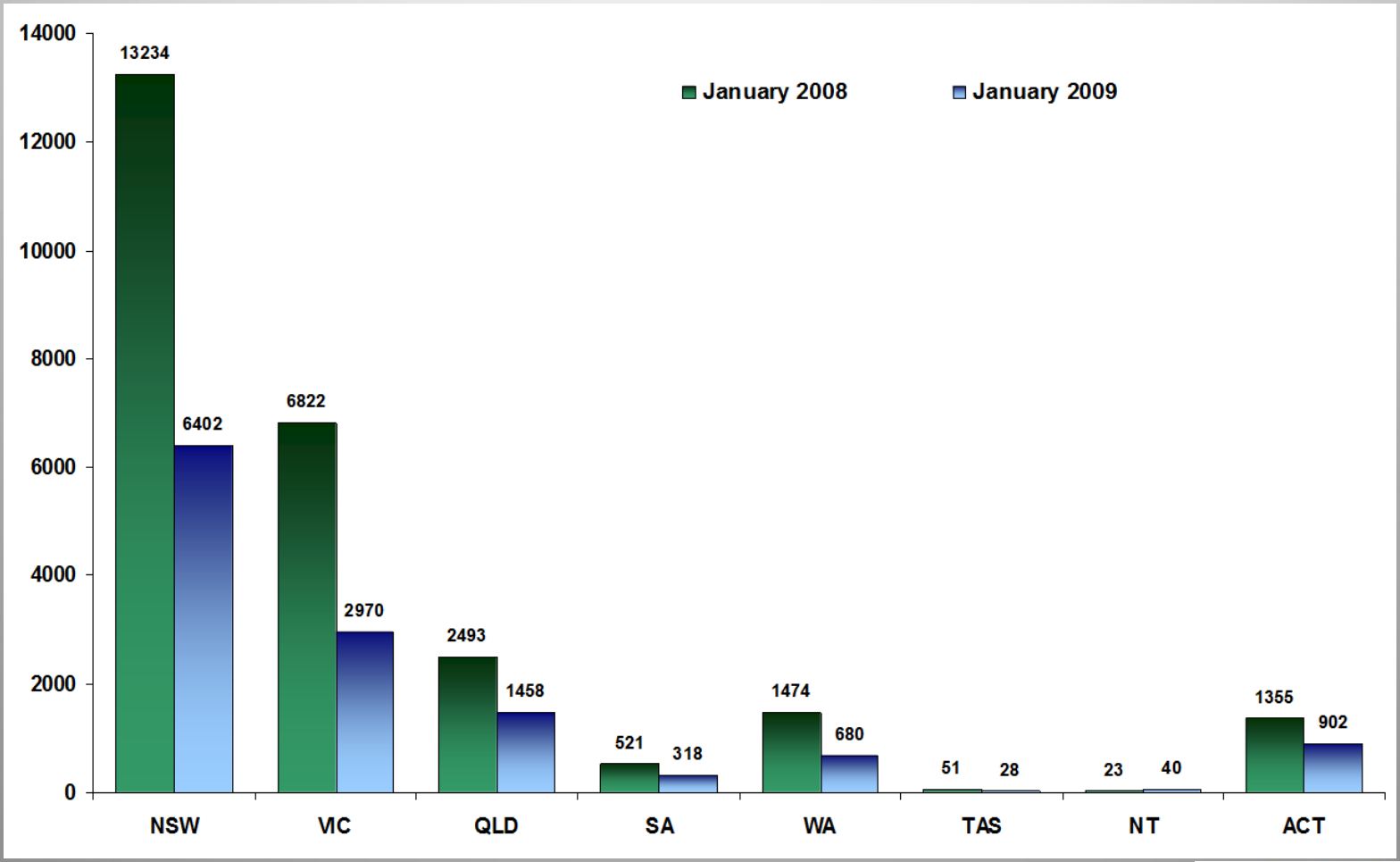
Australia

Decline in ICT State Vacancies

NSW - 52% // Victoria - 56%



SkillsInfo Australia (Accessed April 2009)

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Australian ICT Labour Market Feb 2009

Note: Click on any line below while running the slide show

ICT LABOUR MARKET INDICATORS

This presentation provides an overview of the demand side of the ICT labour market in Australia

bob.bunnett@deewr.gov.au or julian.sharrad@deewr.gov.au

Labour Supply and Skills Branch

Department of Education, Employment and Workplace Relations

February 2009

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Conclusions:

- *NACCQ diploma qualifications;*
  - *meeting the needs of the domestic market*
  - *demand continuing/consistent and*
  - *independent of fluctuating international market*
- *Gender imbalance an ongoing problem*
- *Australasian job market;*
  - *Global recession having a significant impact*

Recommendations:

- *Cherish the Blue Book (Harmonised ICT Qualifications)*
- *Harmonise ITP ICT degree qualifications*

Acknowledgements:

The authors would sincerely like to thank Dr Christo Potgieter, HoS, for his invaluable assistance and support with the development of the content and presentation of this poster.

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