



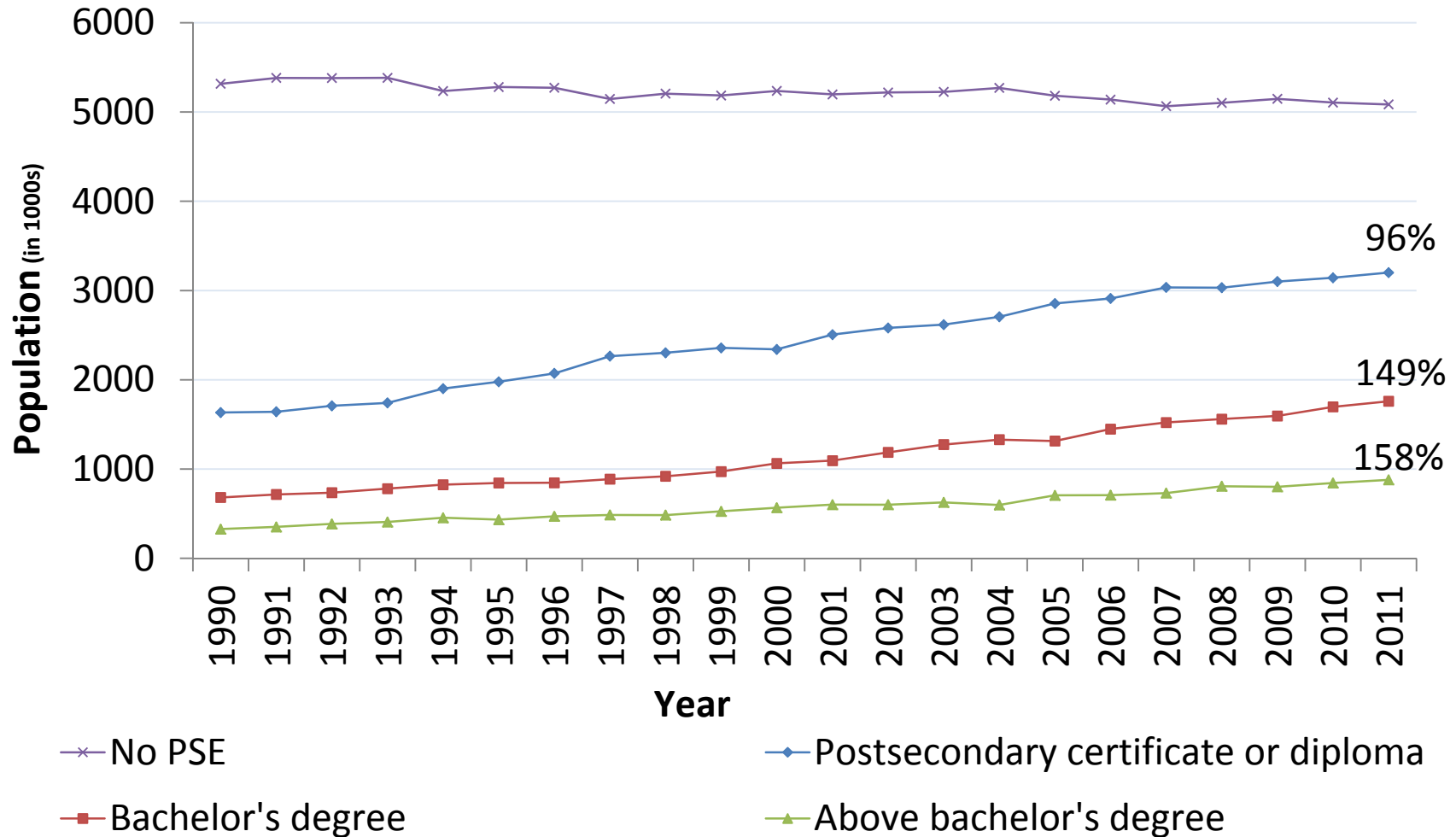
Early Labour Market Outcomes of Ontario College and University Graduates, 1982-2005

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HEQCO



Higher Education
Quality Council
of Ontario

Ontario PSE attainment increased dramatically



Data

- Statistics Canada's National Graduates Survey (NGS) and Follow-up of Graduates Survey (FOG)
- All six available cohorts: the classes of 1982, 1986, 1990, 1995, 2000 and 2005
- Focus: Ontario college and university graduates



Research questions

- What is the **trend** of Ontario PSE graduates' labour market outcomes between the cohorts of 1982 and 2005?
- How do the labour market outcomes of Ontario PSE graduates **compare** to the rest of Canada (ROC)?
- Do Ontario PSE graduates' labour market outcomes **improve** between two and five years after graduation?
- How do labour market outcomes **differ** among graduates with different levels of credentials?



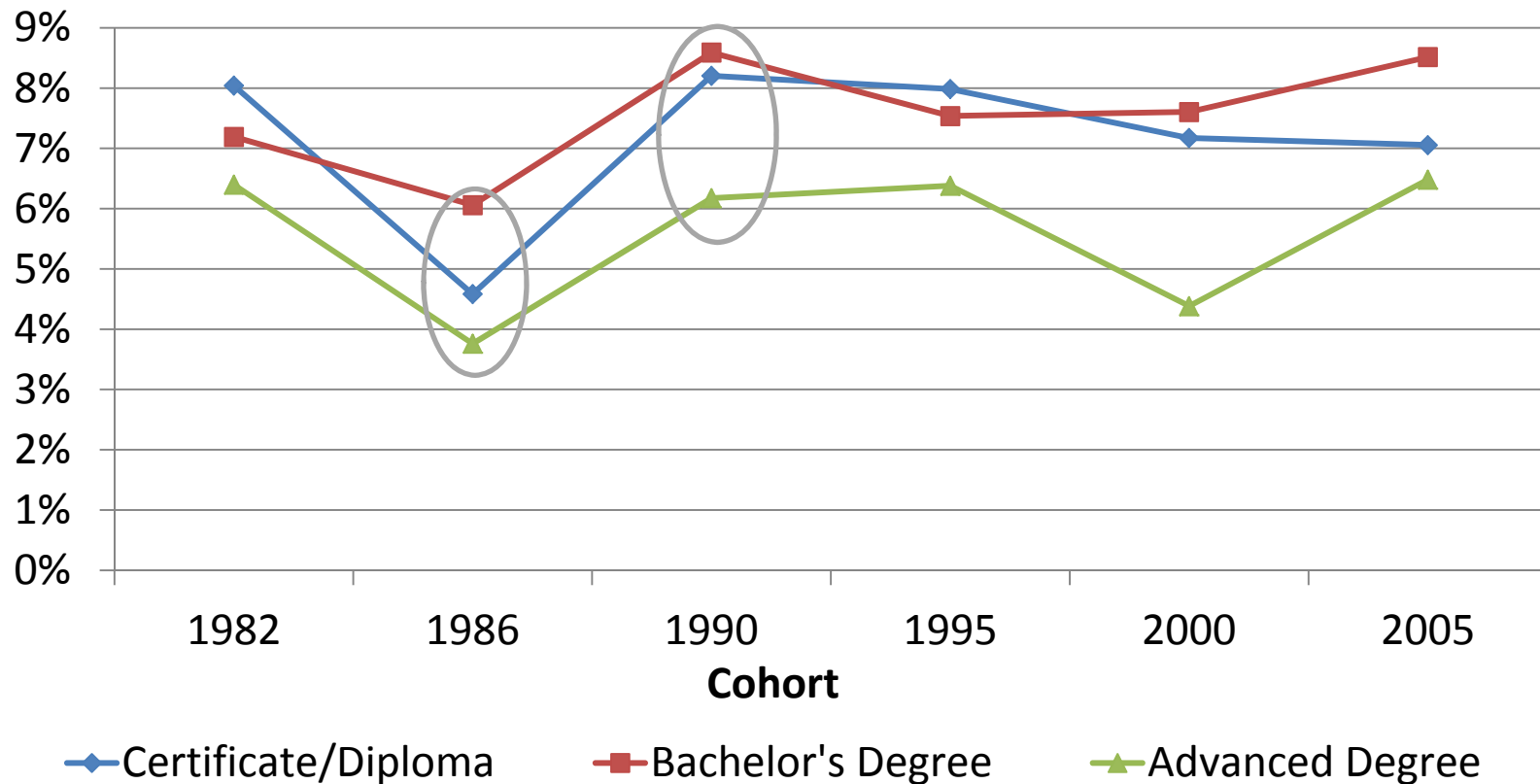
Indices of labour market outcomes

- Unemployment rate
- Overqualification
- Proportion in a closely related job
- Annual earnings

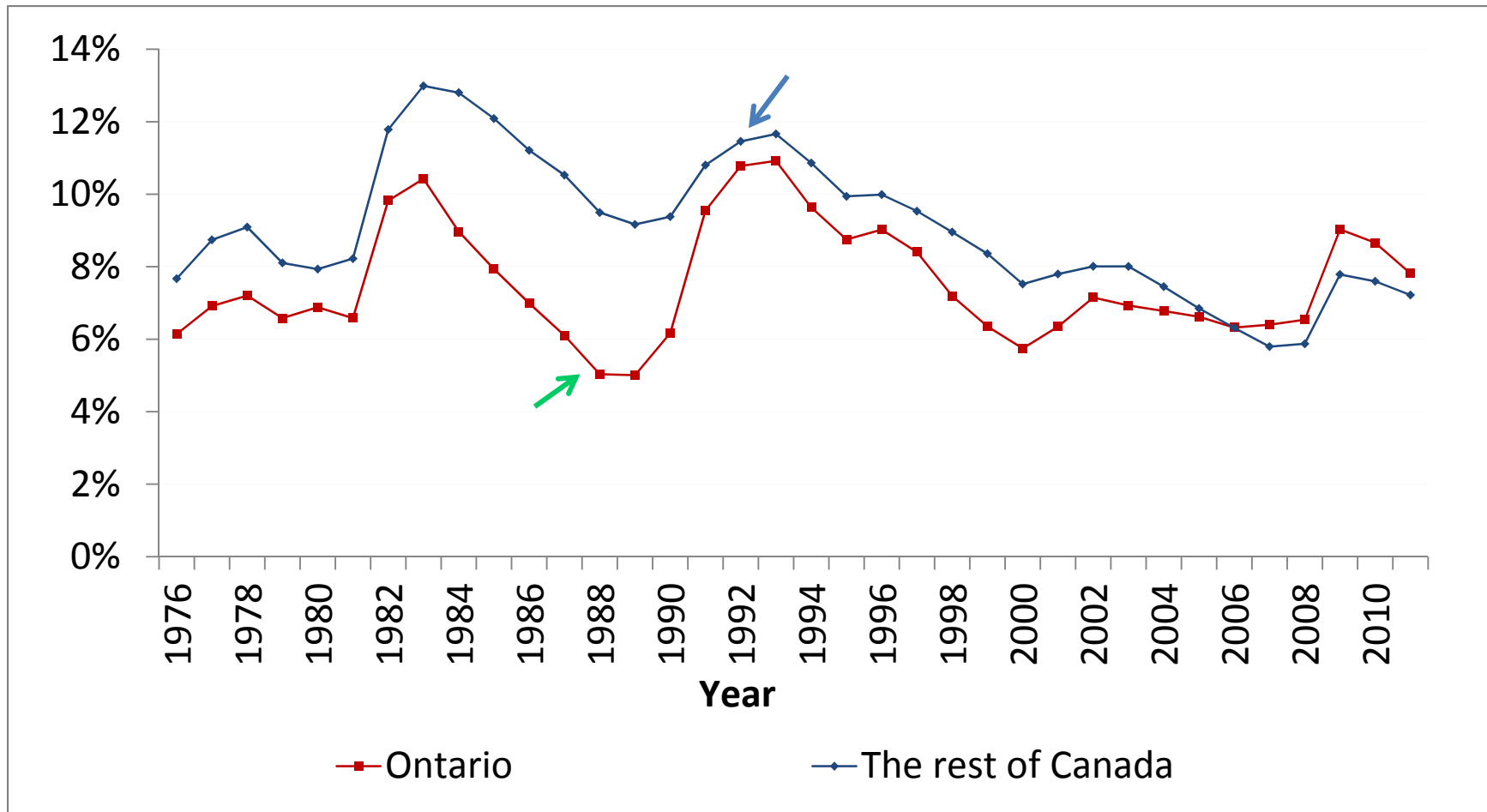


Ontario graduates' unemployment rate fluctuates with the economy

Two years after graduation: Ontario

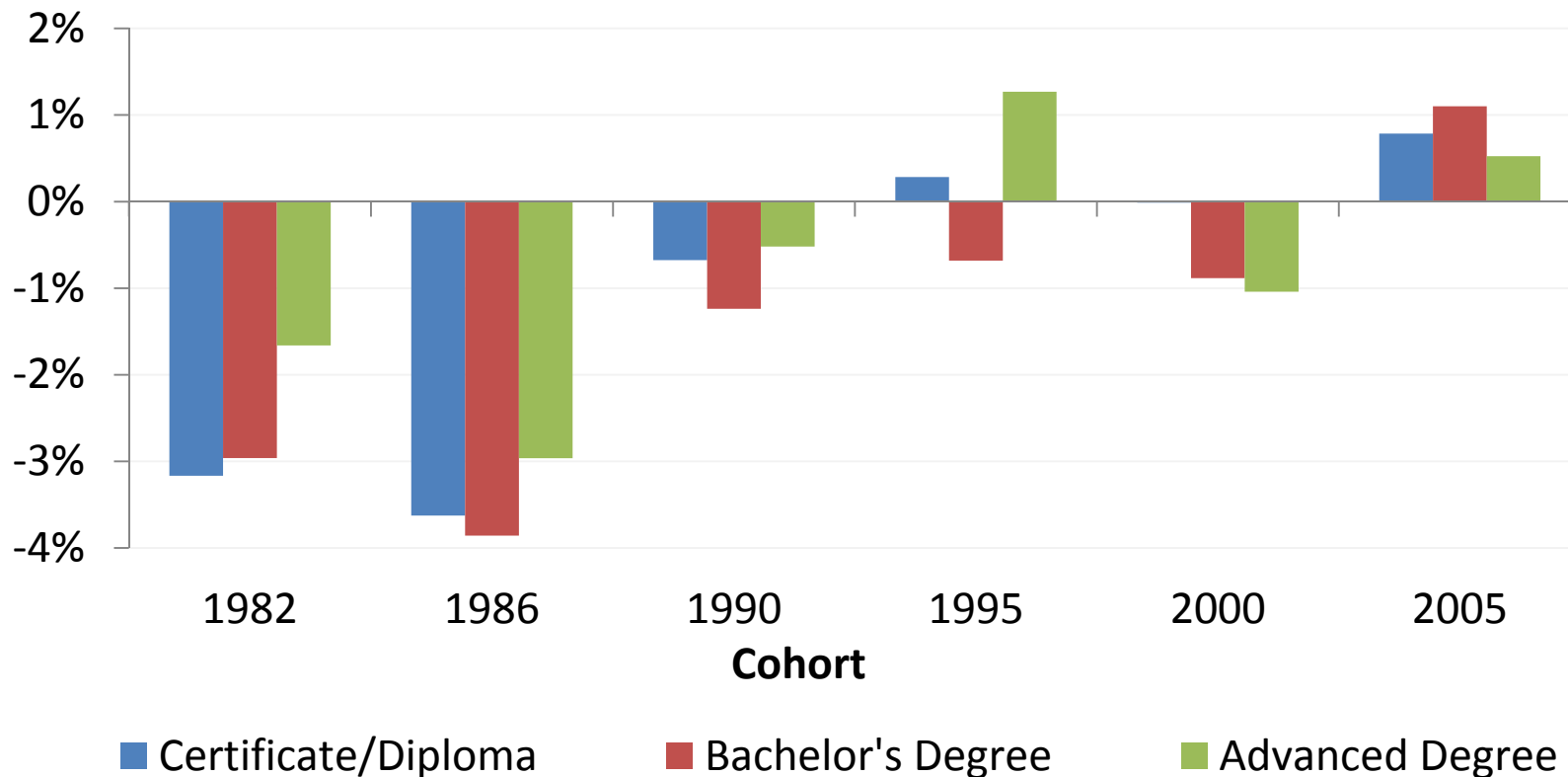


Unemployment rate of the labour force



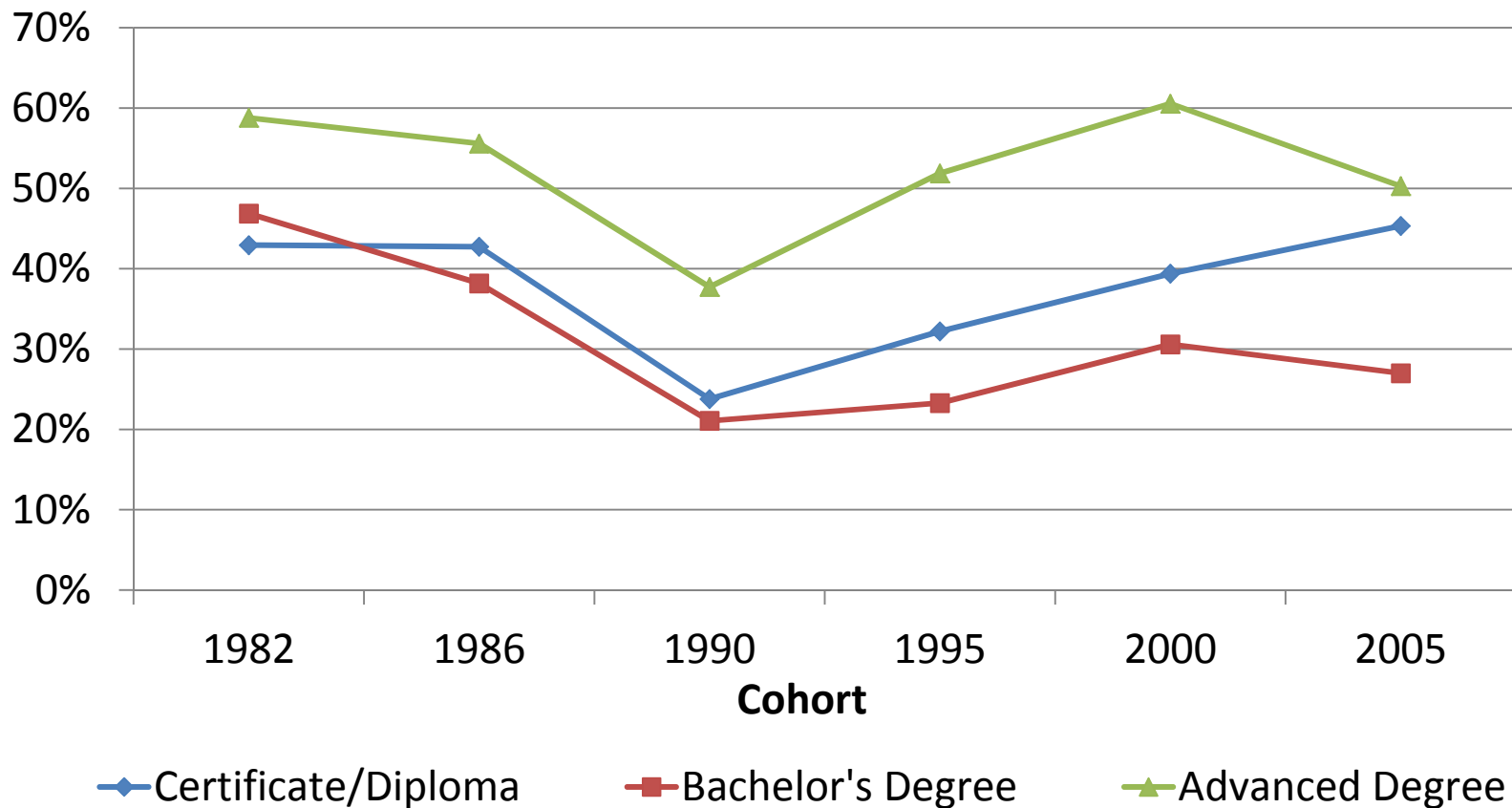
Ontario graduates' unemployment rate surpassed the ROC

Two years after graduation: Ontario vs. the ROC



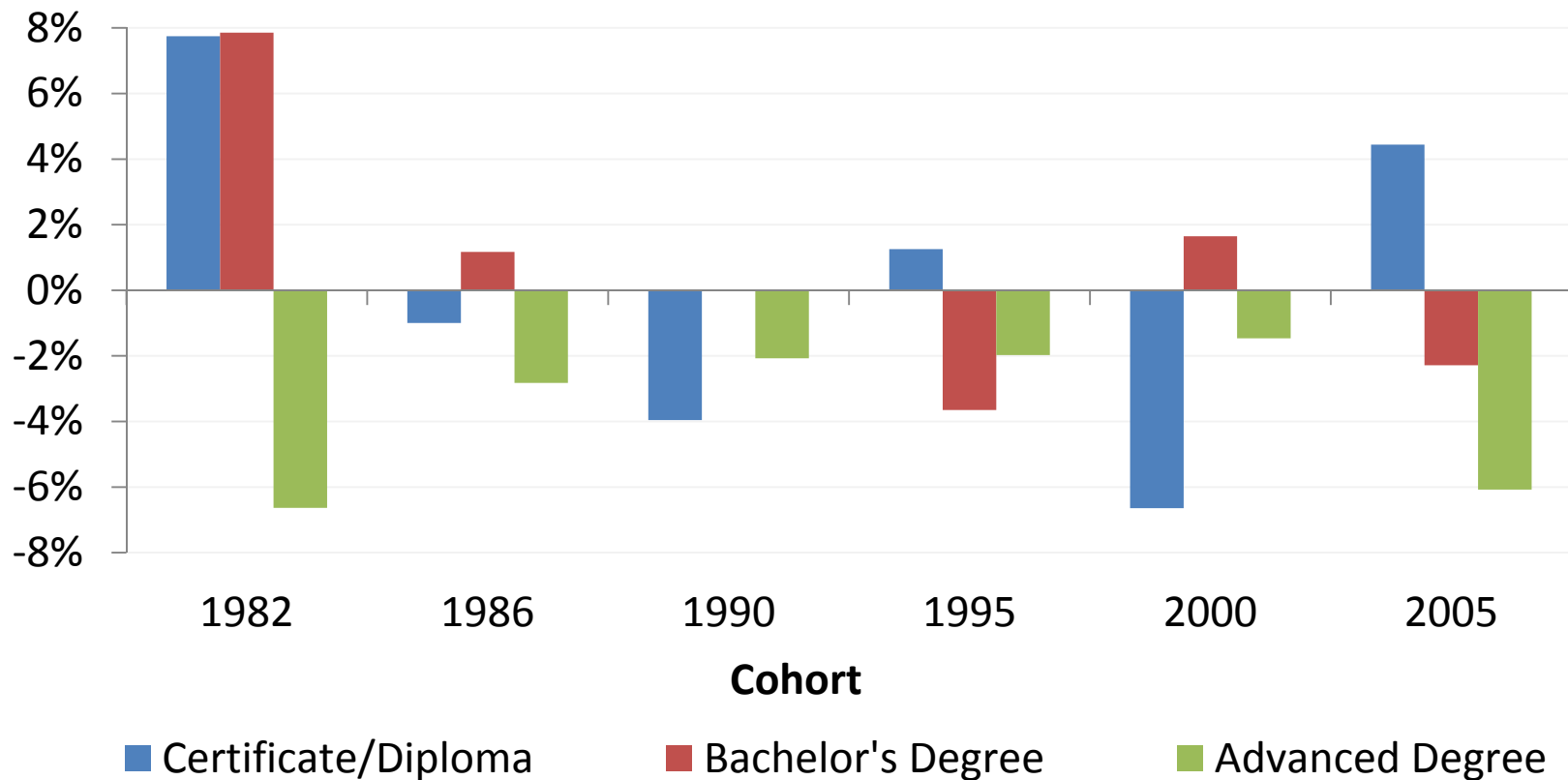
Rate of overqualification remains high

Two years after graduation: Ontario



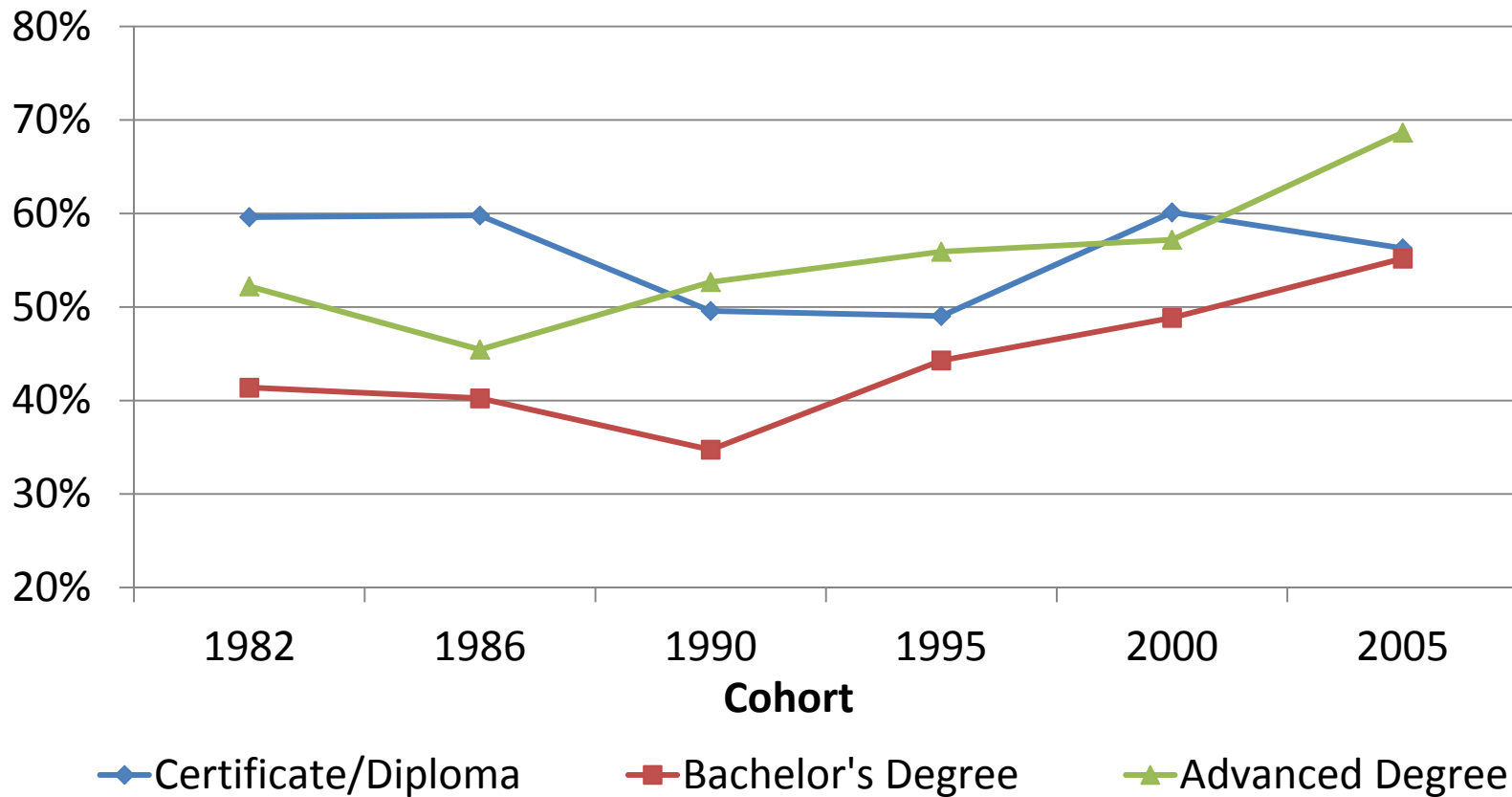
Compared with the ROC, Ontario graduates with an advanced degree are less likely to be overqualified

Two years after graduation: Ontario vs. the ROC



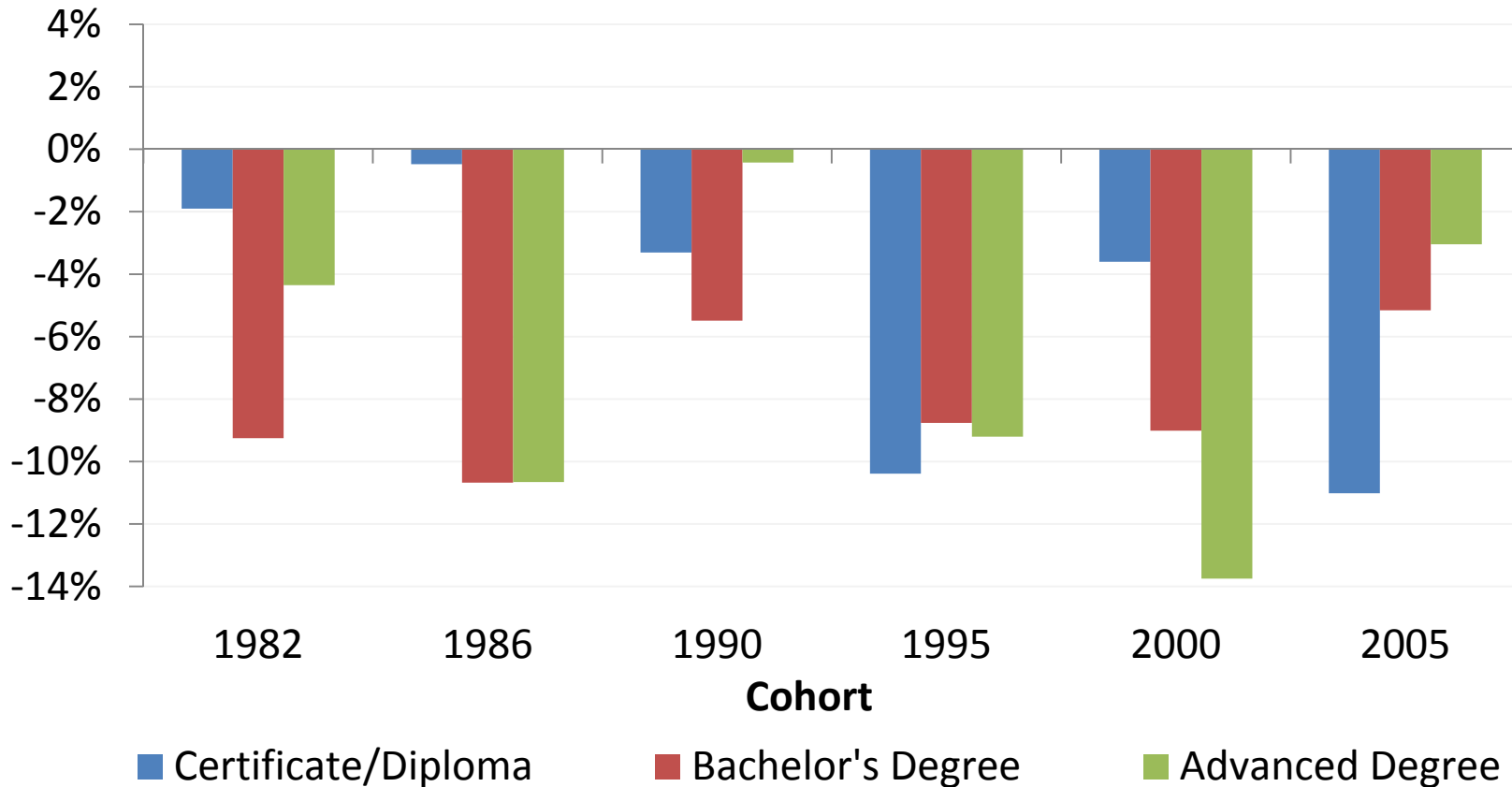
The proportion of Ontario graduates in a closely related job has been increasing since cohort 1990

Two years after graduation: Ontario



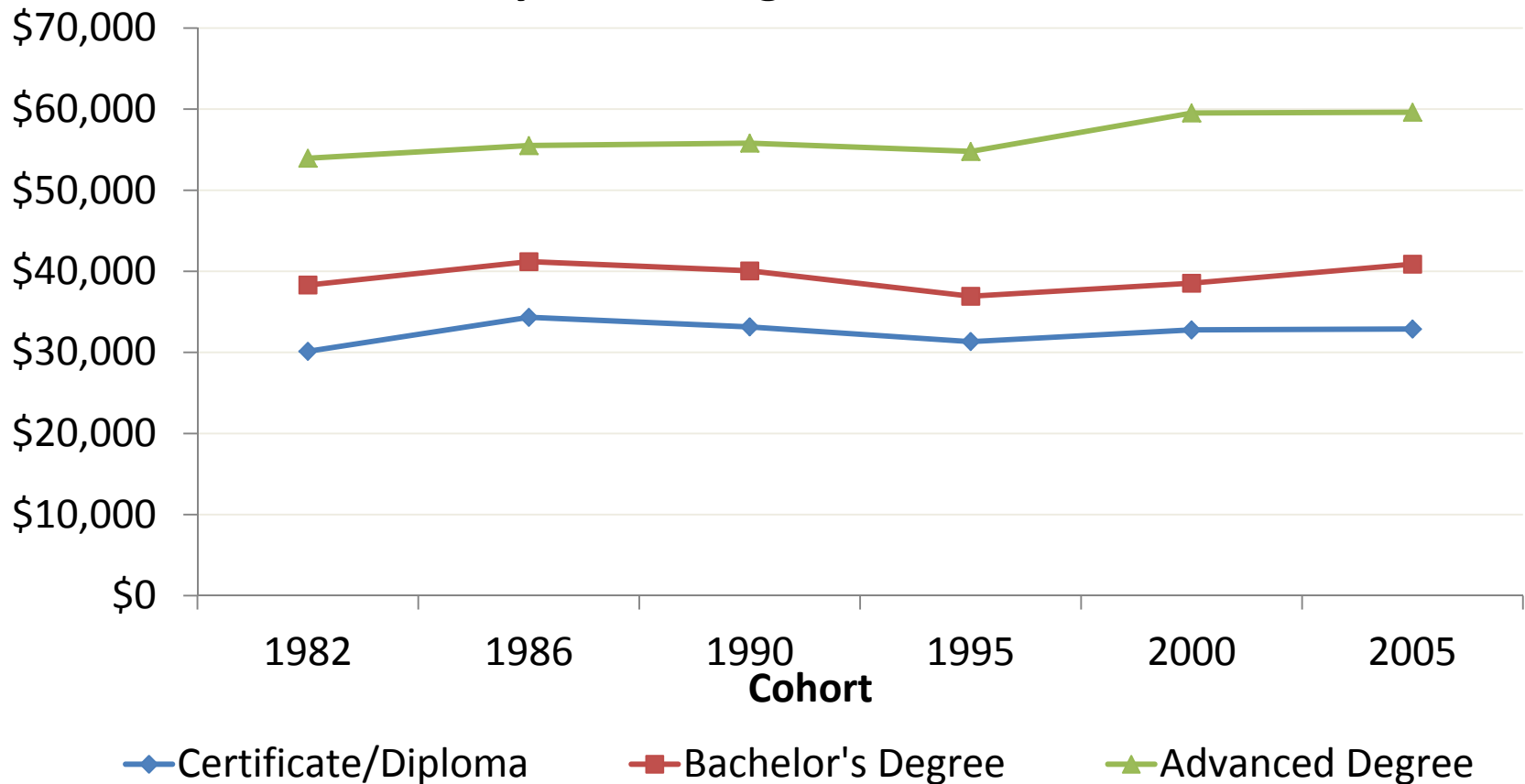
Compared with the ROC, Ontario graduates are less likely to be in a closely related job

Two years after graduation: Ontario vs. the ROC



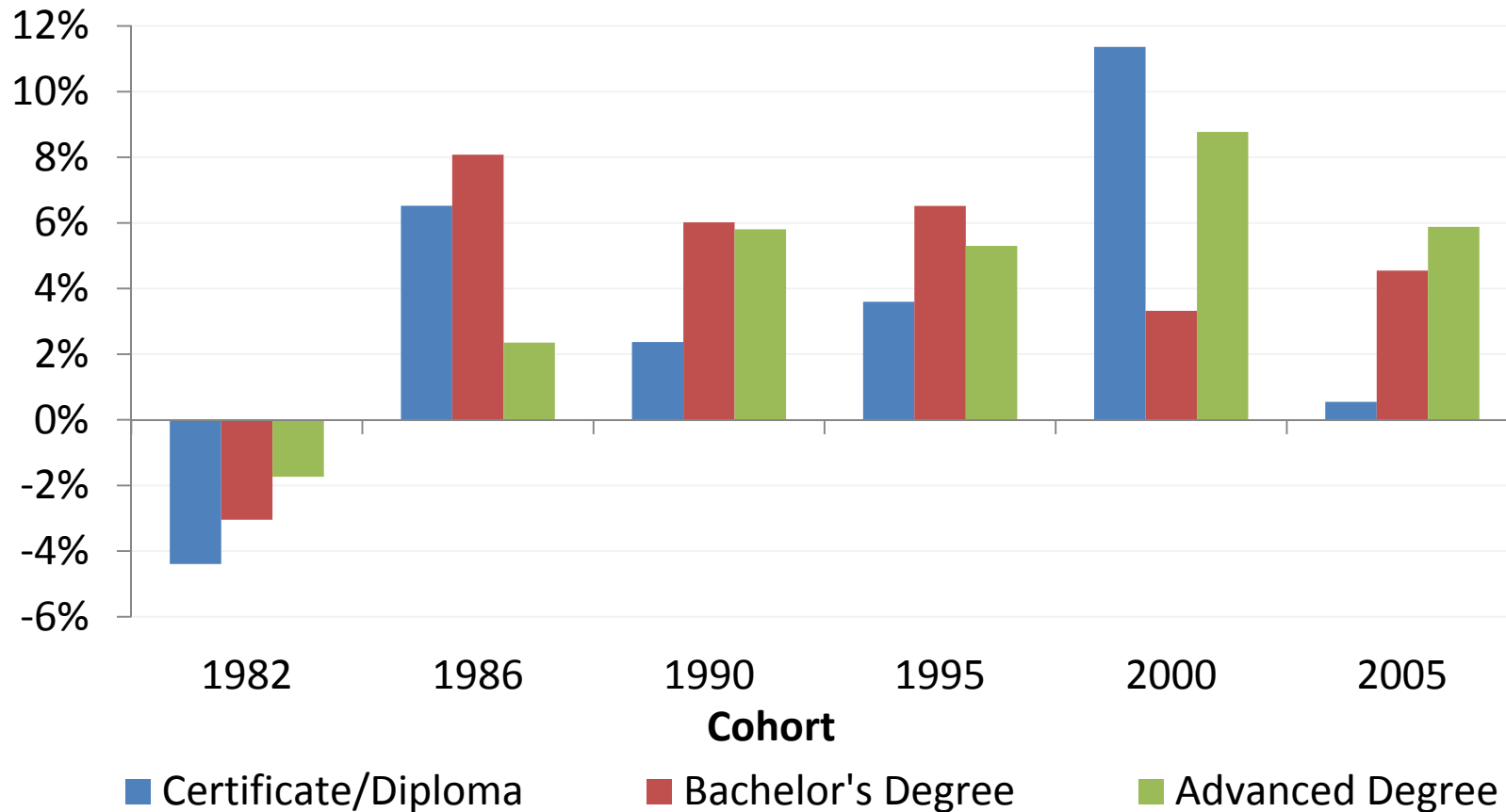
Annual earnings of Ontario graduates with an advanced degree have increased

Two years after graduation: Ontario



Ontario graduates earned more than the ROC

Two years after graduation: Ontario vs. the ROC



Ontario labour market absorbed the increased supply of PSE graduates

- Trend over time: not greatly improved, but not at a disadvantage.
- Between two and five years after graduation: generally improved.
- Compared with the ROC: mixed.
- By credential: costs should be taken into consideration.



Areas for further study

- The influencers of PSE graduates' labour market outcomes:
 - Socio-demographic characteristics
 - Program characteristics
 - Personal experience
 - Etc.



Thank you!

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Paper is available at

www.heqco.ca

Graduate Pathways:

Insights from Australian graduates in the
first five years after completion

Dr. Daniel Edwards

*HEQCO Learning to Earning:
Higher Education and the Changing Job Market*
Toronto, 1-2 November, 2012



Overview

1. Graduate Pathways Survey (GPS)
2. General outcomes
3. Outcomes for specific groups:
 - Students from disadvantaged groups
 - Gender



The Graduate Pathways Survey

- Study for the Australian Government, 2008
- Survey of graduates who completed bachelor degree in 2002.
- Questions focused on work and study in 1st, 3rd and 5th years following graduation.
- Nationally representative sample of 9,238 graduates collected.



General Outcomes

Value of degree at 5th year after graduation:

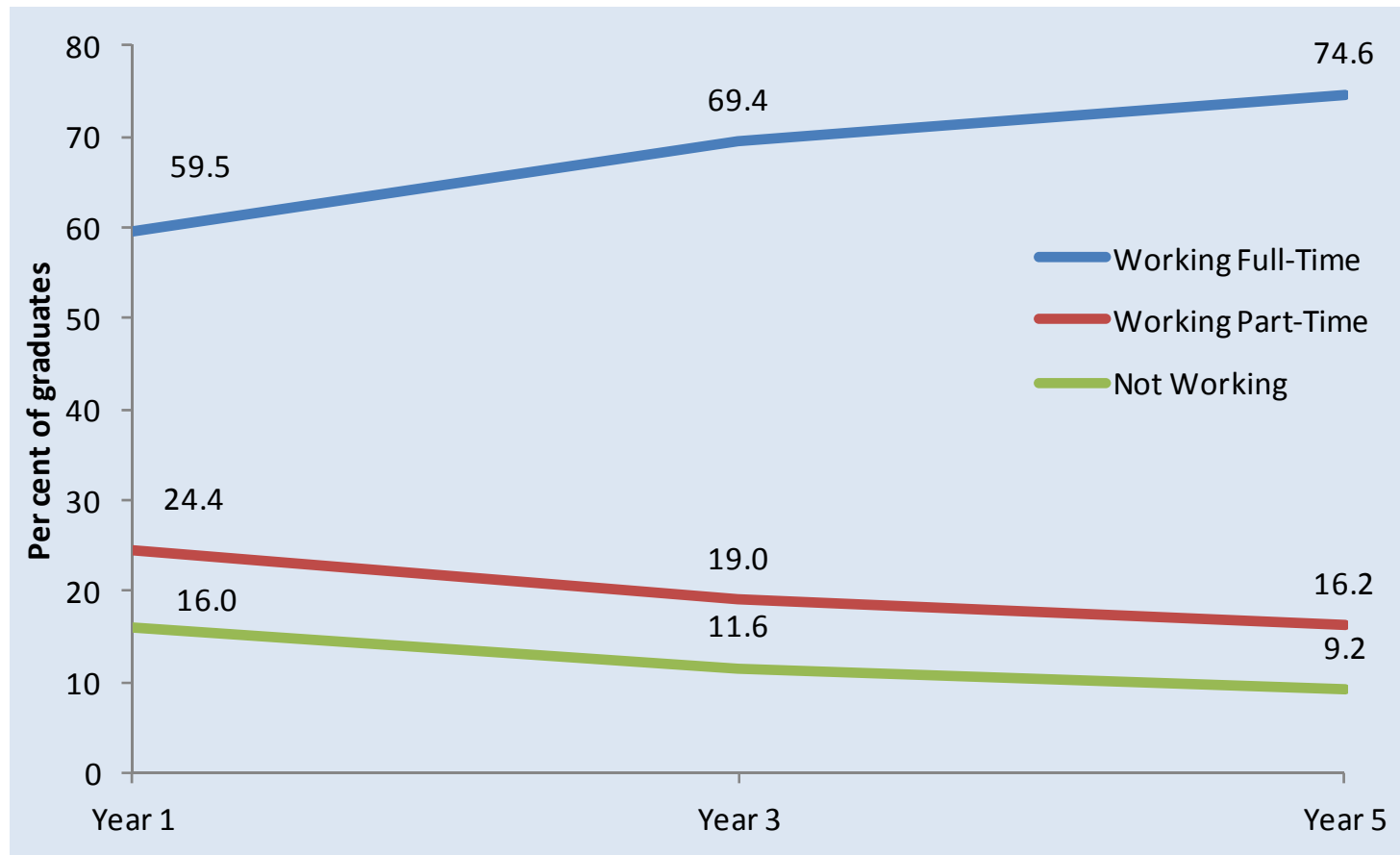
- 79.6% experience during degree was 'good' or 'excellent'.
- 70.1% would 'probably' or 'definitely' choose same degree again, 85.1% would choose same university.
- 'Was your bachelor degree worth the cost, time and effort?' 87.5% 'probably' or 'definitely' (48% 'definitely')



Pathways to study and work:

- By fifth year after graduation 25% had gained a postgrad coursework qualification, 6% a research qual.
- By fifth year, 74.6% working full-time, 16.2% part-time 9.2% not working (of which 40% in study).

Employment outcomes at 1, 3 and 5 years



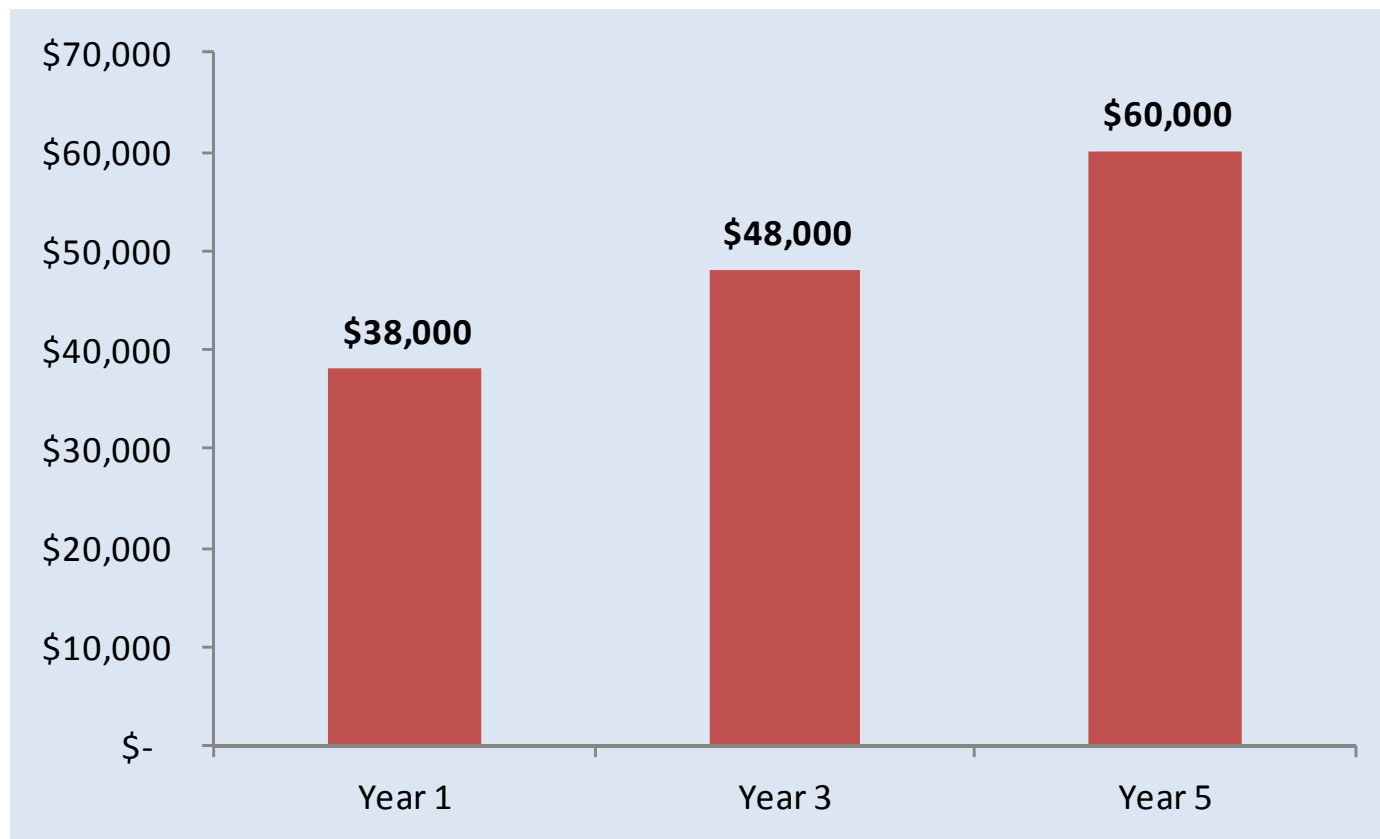


Rewards from degree:

- Satisfaction ('very' satisfied) with work increased from 22.3% (1st yr), to 26.3% (3rd yr) to 36.7% (5th yr).
- 72.7% saw degree as 'very' or 'quite' beneficial to long-term career prospects.
- Median salary at 5th year AU\$60,000. Middle 50% of graduates salary ranged from \$47,800 to \$78,000.
- Average Australian worker at the time earned \$46,300.



Median salary of graduates, 1, 3 and 5 years after graduation (AU\$)





Outcomes for disadvantaged students

- Equity agenda – importance of education for social mobility.
- Disadvantaged group =
 - neither parent employed in professional occupation;
 - neither parent attended university; and
 - grew up in a low socioeconomic status area.
- This group comprised 12% of GPS sample.



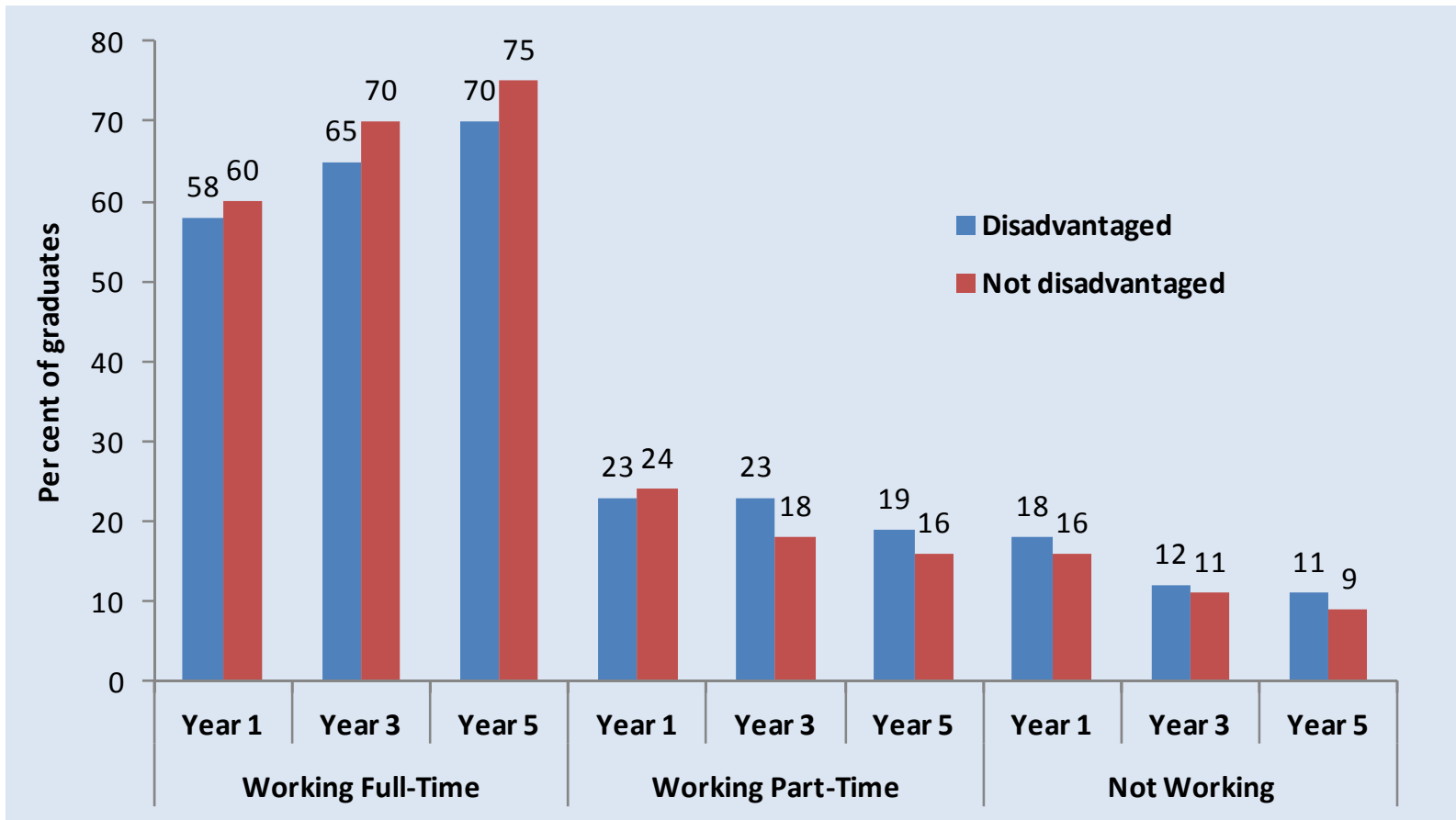
- By the definition used, this disadvantaged group was more likely than other students to:
 - Attend institutions less than 50 yrs old
 - Have studied part-time or externally or by distance
 - Be slightly older
 - Have a non-English speaking background
 - Be of Indigenous origin
 - Identify as having a disability
 - Come from a provincial or remote area



- Outcomes suggest that those who entered university from disadvantaged backgrounds reported educational and occupational outcomes equal to other students...
- Compared to all graduates, these grads were:
 - equally satisfied with degree, overall experience and the value and time they had invested in study.
 - bachelor degree was of equal relevance to their work and or further study.
 - Just as likely to be in further education.
 - Earning the same median salary.



Employment outcomes





Disadvantaged students



- Disadvantaged student slightly less likely to be in a professional or managerial occupation after the fifth year (59% compared with 64%).

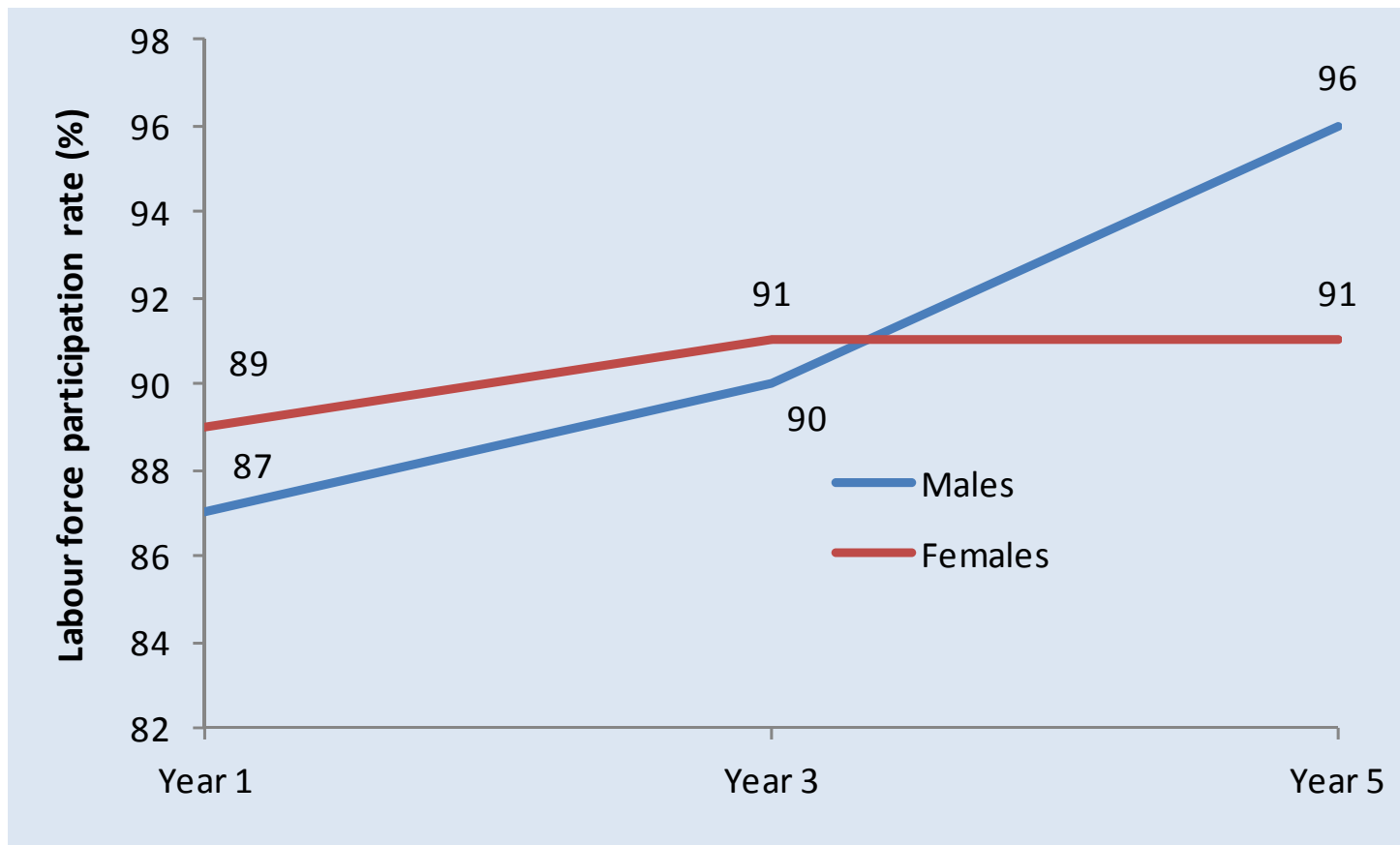


Gender differences

- Field of study choice: women highly represented in Education and Health fields, under-represented in IT and Engineering.
- Notable differences in labour force participation, hours worked and salary...

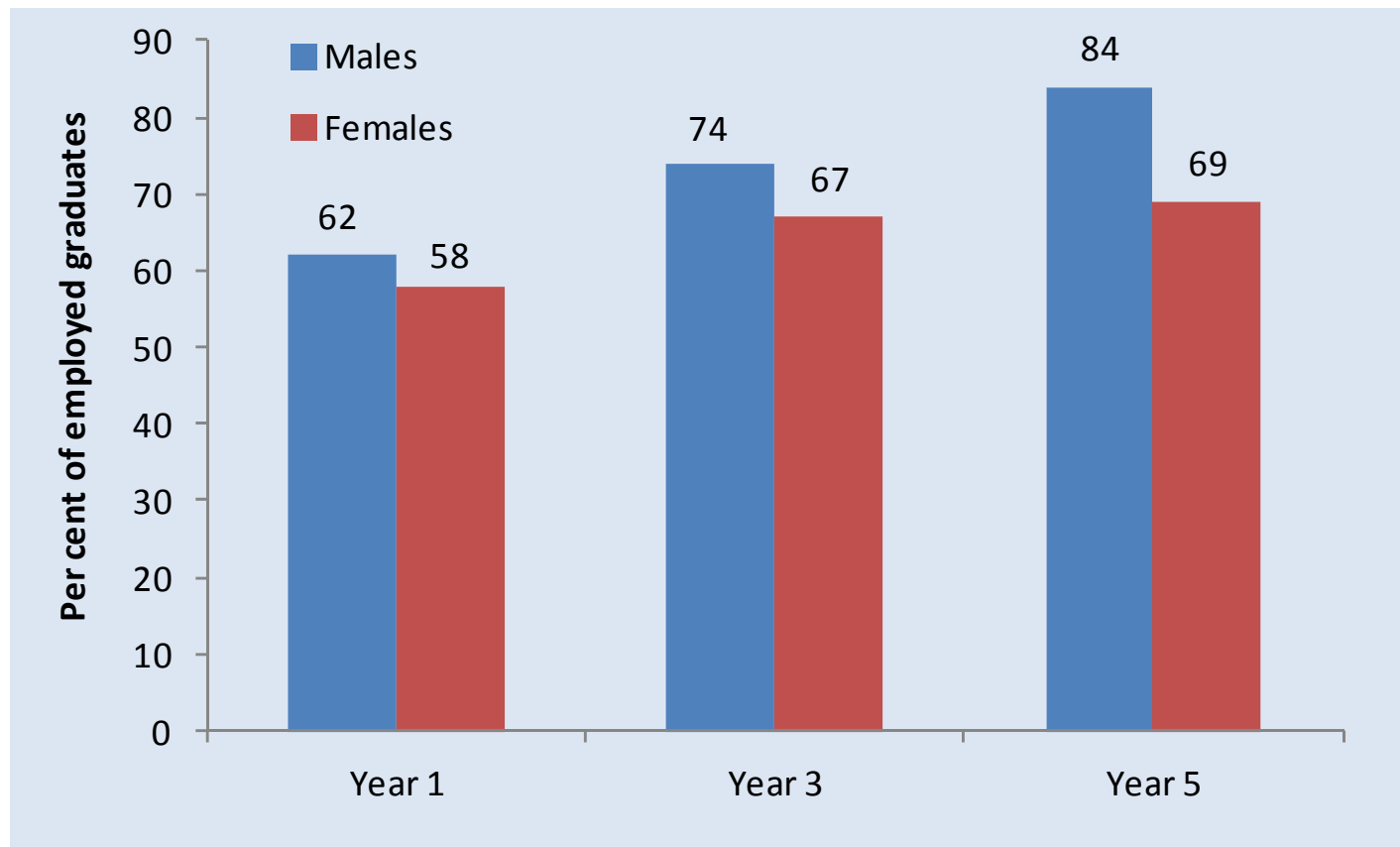


Labour force Participation





Employed full-time





Annual Salary

- Raw median five years out = Females AU\$57,000
Males AU\$70,000
- However, this could be influenced by hours worked, field of study/industry of employment etc.
- So...regression model controlling for part-time work, industry, occupational classification, field of education, age, participation in further study...

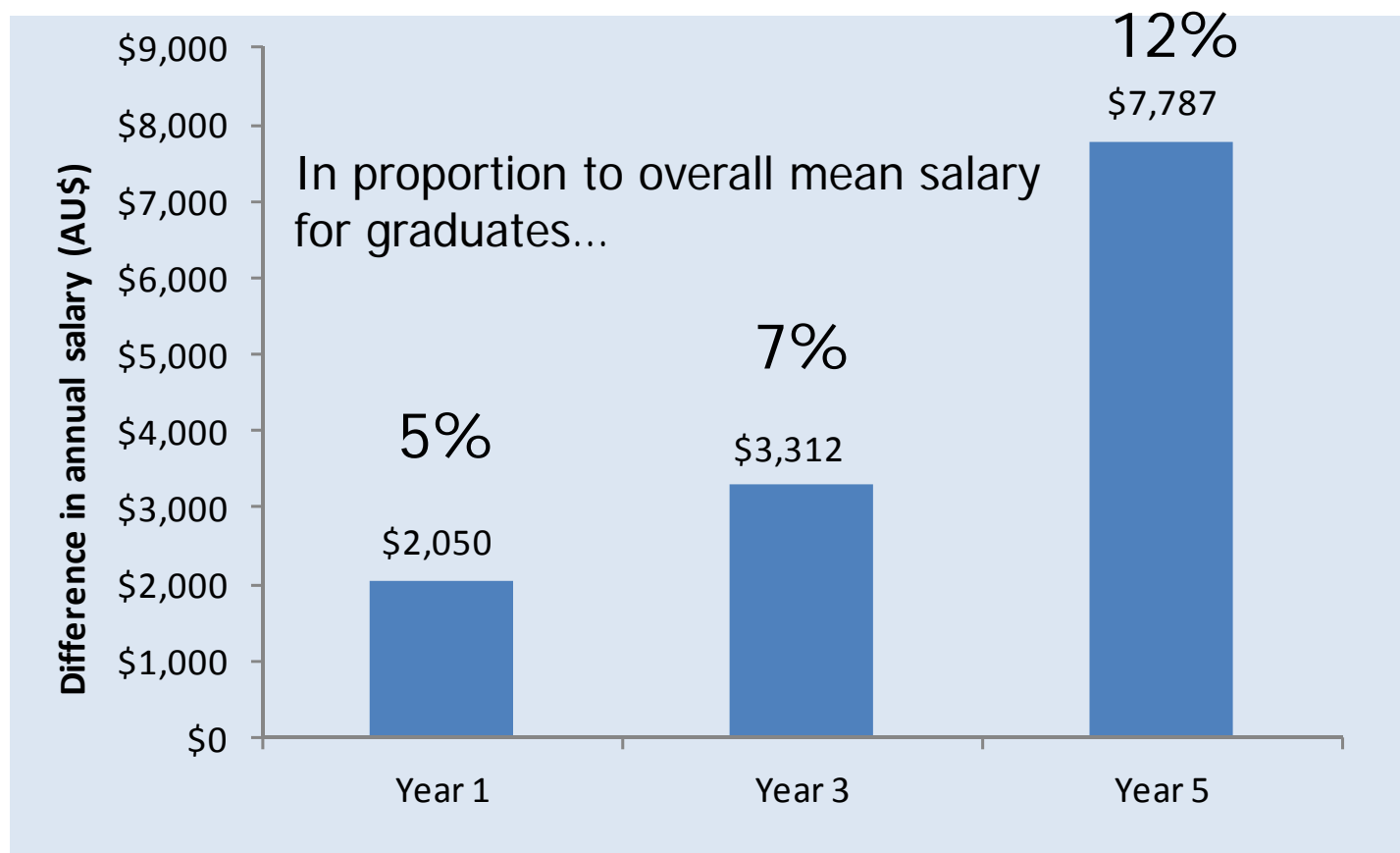


Annual Salary

- Conclusion – gender still has notable influence on graduate salaries.
- At five years after graduation, model predicts that net of other influences, male graduates predicted to earn on average AU\$7,800 per annum more than female graduates (95% confidence \$7,400-\$8,200).
- Modelling for Years 1 and 3 shows an increasing gap.



Annual Salary – difference males vs females (AU\$)





More...

- Field of education
- Grads from regional areas
- Grads who worked (in paid employment) during their degree
- etc...



Further information:

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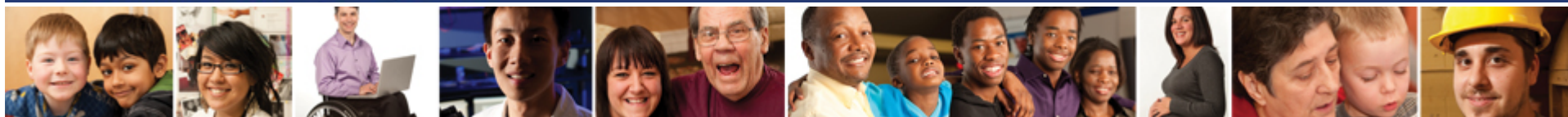


Human Resources and
Skills Development Canada

Ressources humaines et
Développement des compétences Canada

Canada

Now and Tomorrow
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Earnings of Postsecondary Graduates in Canada

Presented by:

Patrick Bussière

**Skills Development Research Division, Policy Research Directorate
Human Resources and Skills Development Canada**

At HEQCO's conference:

Learning to Earning | Higher Education and the Changing Job Market
Sheraton Centre, Toronto, November 1-2

Presentation Outline

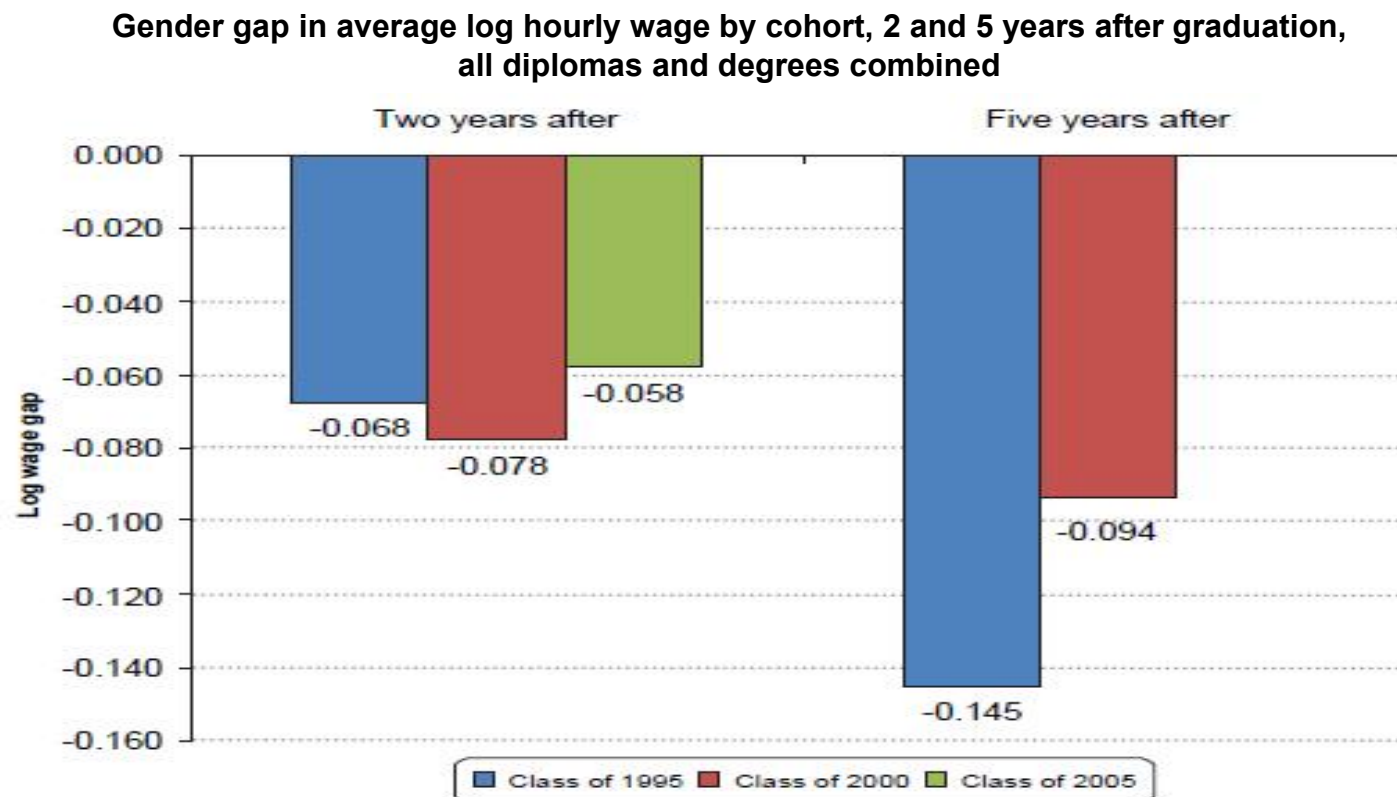
- Introduction
- The gender wage gap among recent postsecondary graduates
- Earnings premium of science and technology graduates compared to humanities graduates (i.e. science premium)
 - how the science premium persists between two and five years after graduation for the same individuals?
 - how the science premium change over time across the different cohorts of different graduates?
- Conclusion

Introduction

- Gender wage inequality has long been a characteristic of the Canadian labour market. This matters for equity, but also from the perspective of skills and competitiveness if on average women are not being utilized to their full potential in the labour market.
- While there is an increased demand for skilled labour to fill jobs in the science and technology sectors, the availability of skilled labour may create its own demand. Increases in skills foster innovation, research and development, and technological change, allowing Canada to remain competitive in a global market where high value-added productivity can sustain high wages. As a result, the human resources and skills development of a country becomes crucial source of competitive advantage, with education and training in science and technology being a key component of that skill development.

Gender Wage Gap

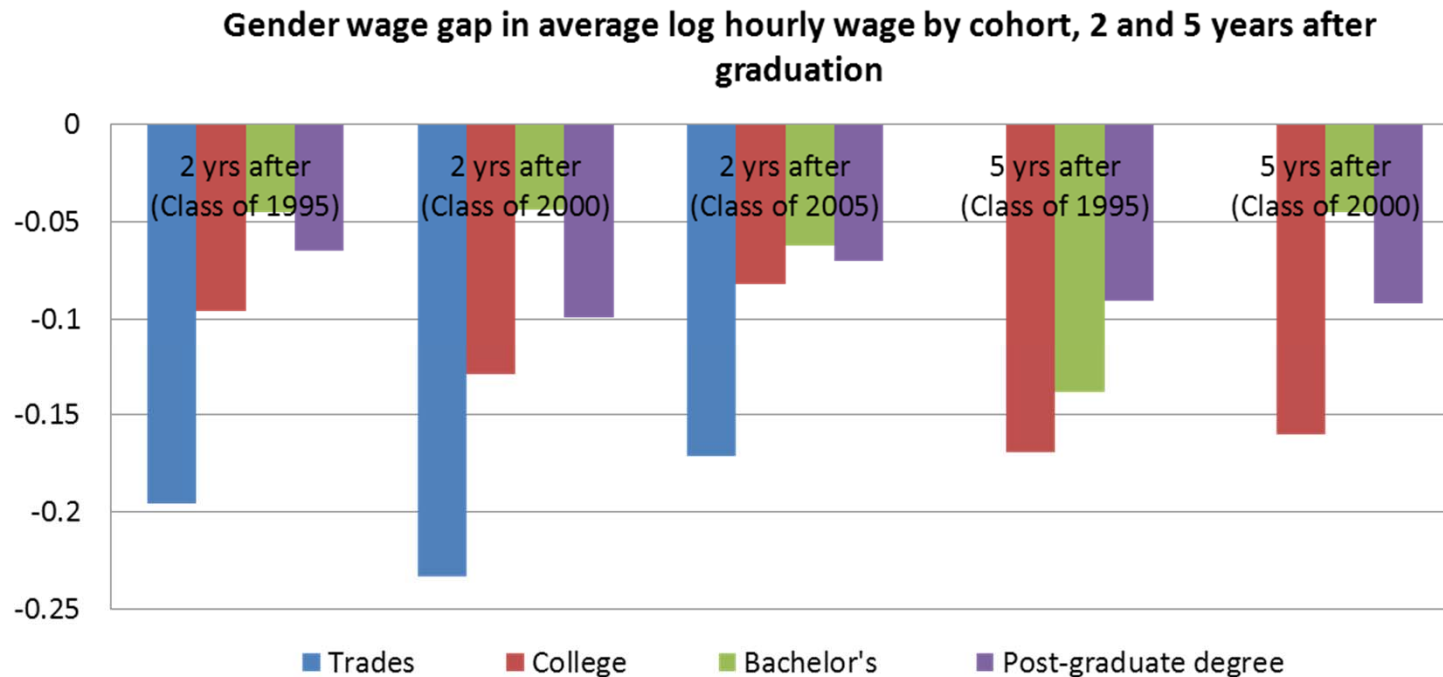
The gender wage gap in the short term is comparable among the three cohorts



- There is a marked decrease in the widening of the gap from two to five years after graduation between the cohort of 1995 and the cohort of 2000.

Gender Wage Gap

In general, gender wage gap is smallest among university graduates



- In the short term (i.e. two years after graduation), the gender hourly wage gap is **greatest** among trades school graduates (gaps between 17% and 23%), followed by college graduates (gaps between 8% and 13%), then holders of post-graduate degrees (gaps between 7% and 10%) and **narrowest** among graduates with a bachelor's degree (gaps between 4.5% and 6%).

Gender Wage Gap

Women obtain a greater return on their education than men

Gender differences for returns on education

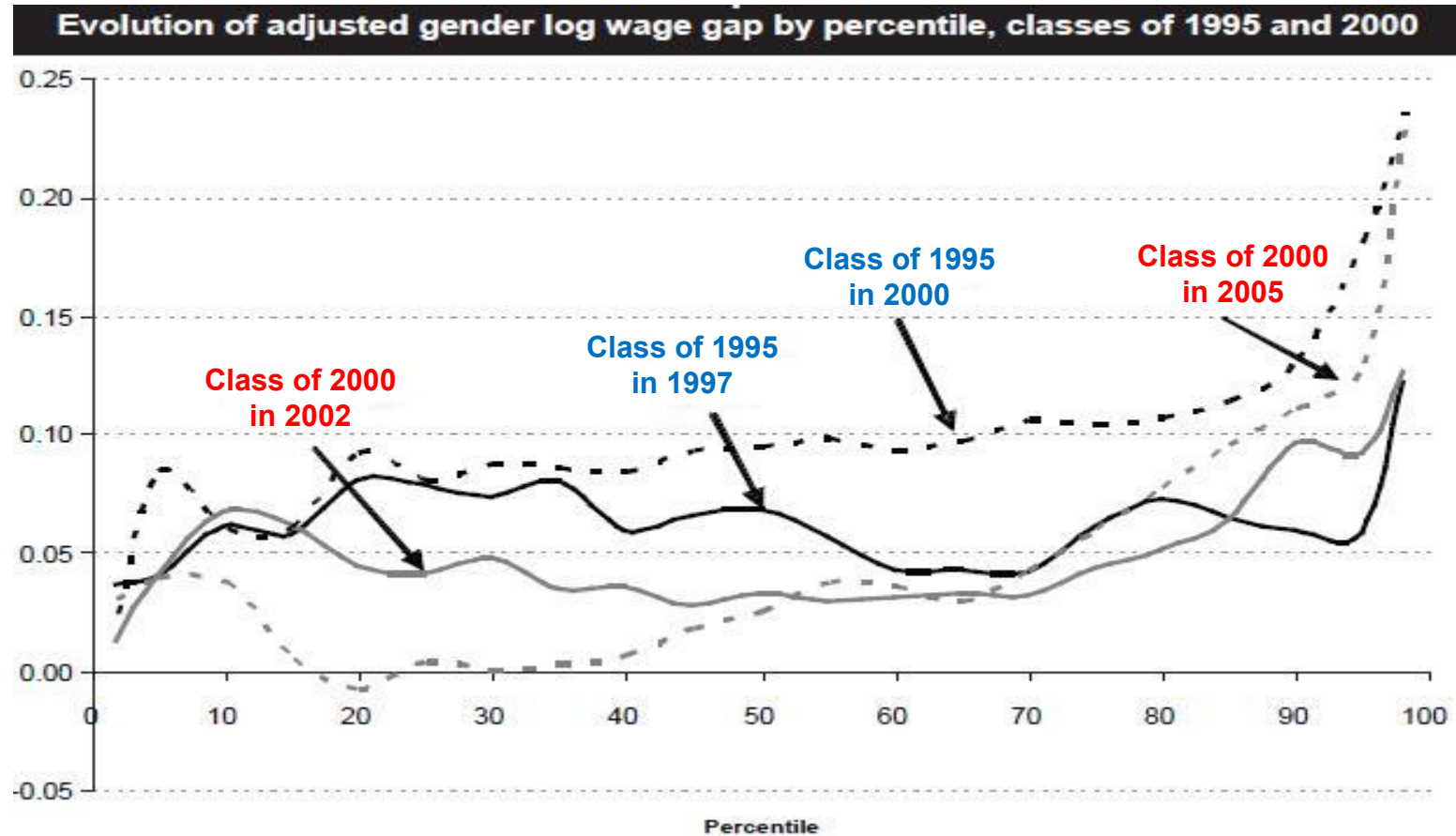
	1997 (Class of 1995)	2000 (Class of 1995)	2002 (Class of 2000)	2005 (Class of 2000)	2007 (Class of 2005)
Trades	-6.5%***	---	-1.4%	---	-7.0%***
Bachelor's degree	10.8%***	4.6%**	6.1%***	6.9%***	3.6%**
Post-graduate degree	5.0%*	7.9%***	3.5%	5.0%*	4.2%

Note: reference group=college diploma

- Women's advantage over men for returns on education seems to have declined over time. This may be linked to women's increasingly greater presence in universities.

Gender Wage Gap

Female postsecondary graduates have made great progress in narrowing the gender wage gap at the bottom of distribution



Source: National Graduate Survey

Science Premium

Both university and college graduates experienced substantial earnings growth over-time

University Science and Humanities graduates combined

	1990 graduate cohort			1995 graduate cohort			2000 graduate cohort		
	1992	1995	Δ 92 to 95	1997	2000	Δ 97 to 00	2002	2005	Δ 02 to 05
Both sexes	\$37,212	\$44,854	\$7,642	\$33,911	\$49,800	\$15,889	\$36,180	\$48,104	\$11,924
Males	\$39,233	\$47,806	\$8,573	\$38,891	\$58,402	\$19,511	\$39,037	\$54,775	\$15,738
Females	\$34,049	\$40,233	\$6,182	\$27,934	\$39,477	\$11,543	\$33,985	\$42,977	\$8,992

College Science and Humanities graduates combined

	1990 graduate cohort			1995 graduate cohort			2000 graduate cohort		
	1992	1995	Δ 92 to 95	1997	2000	Δ 97 to 00	2002	2005	Δ 02 to 05
Both sexes	\$32,775	\$38,885	\$6,110	\$33,666	\$43,957	\$10,291	\$29,181	\$38,575	\$9,394
Males	\$33,636	\$40,200	\$6,564	\$35,459	\$46,476	\$11,017	\$31,253	\$42,958	\$11,705
Females	\$29,465	\$33,835	\$4,370	\$26,197	\$33,469	\$7,272	\$26,957	\$33,868	\$6,911

- For university and college graduates in both Science and Technology and Humanities, earnings for the **same individuals** increased substantially between 2 and 5 years after graduation for all the cohorts.
- The three year earnings growth between 2 and 5 years out for both university and college graduates was consistently slower for females. This may be due to discrimination (e.g. fewer promotions over time) or different household obligations.

Science Premium

Earnings premium for university grads in the sciences over the humanities prevailed for both 2 and 5 years after graduation for all of the cohorts

	1990 graduate cohort			1995 graduate cohort			2000 graduate cohort		
	1992	1995	Δ 92 to 95	1997	2000	Δ 97 to 00	2002	2005	Δ 02 to 05
Both sexes	28.7%***	20.9%***	-8.6%**	26.9%***	24.5%***	-4.7%	15.3%**	22.2%***	1.9%
Males	32.5%***	22.3%***	-10.4%**	24.9%***	17.5%**	-5.5%*	16.8%*	16.4%**	-2.9%
Females	26.3%***	17.8%***	-9.8%**	29.7%***	27.9%***	-6.8%	17.6%**	26.9%***	4.3%*

- **Within Cohorts:** The science premium generally dissipated slightly for the same individuals between 2 and 5 years after graduation suggesting that graduates with a humanities degree may take a bit more time to have their more general skills matched with market needs. The exception was for females in the 2000 cohort whose science premium not only persisted but increased over the three years between 2002 and 2005.
- **Across Cohorts:** With the exception of the increase in the science premium for five-year-out graduates between 1995 and 2000, the earnings premium in science and technologies compared to the humanities generally **declined** over the period when comparisons are made across groups that have the same years of experience since graduating.

Conclusion

- Women in the most recent cohorts (2000 and 2005) do relatively better in terms of gender wage gaps than those in the previous cohorts, with a marked decline in gaps at the bottom of distribution. However, significant gaps persist at the top of distribution, reflecting the ongoing difficulties women have in accessing the best paying jobs. Women are increasingly managing to get off the “floor”, but are still not succeeding in breaking through the glass ceiling.
- For university grads, a substantial *science premium* prevailed for the same individuals within the same cohort, for both 2 and 5 years after graduation and for all three cohorts. This *science premium* generally dissipated slightly for the same individuals between 2 and 5 years after graduation. There generally was a downward trend in the *science premium* for university grads over the three cohorts. However it is not possible to determine if this was real or due to a change in the nature of the earnings question after 1992. Also, since the comparisons across the cohorts involve different individuals, there may be compositional changes in the samples.
- For college grads, a substantial *science premium* also prevailed for the same individuals within the same cohort, for both 2 and 5 years after graduation and for all three cohorts. Unlike university grads where this *science premium* generally dissipated slightly for the same individuals between 2 and 5 years after graduation, for college grads the premium did not generally dissipate.