



Does Industry Training Improve Earnings?

Employment Outcomes of Tertiary Education

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Industry Training

- Formalised learning in the workplace linked to standards and qualifications on the NQF
- Can include on-the-job and off-the-job training
- Participation doubled between 2001-07
 - 180,000 learners
 - \$200M and 5% of tertiary spend
- We look at whether training improves employment, earnings and retention



Industry Training

- What qualifications were gained?
- Were earnings during and after training higher than those of comparable non-participants?
- How did this vary by the level of qualification gained, age, and gender?
- To what extent were non-completions explained by jobs ending?
- To what extent were trainees retained by employers and within industries after training?



Methods

Population

- training data for 2001-06
- linked to LEED: match rate 94%
- training started after 2001 and ended during 2003-05 (72,000)
- observed before, during and after training

Training

- Longitudinal analysis of learners
- Training period can include breaks up to 12 months
- Can include several programmes and qualifications
- Focus on highest qualification gained



Methods

Matching

Comparing participants with non-participants, who looked very similar before training started:

- Age and sex
- Employment and earnings in the 12 months before training started
- Industry and firm size
- 81% matched



Methods

Analysis

- Average earnings in the months training before and after training started
- Compare changes in average monthly earnings over time for participants and non-participants



Main Findings

Programme completion and qualification achievement:

- 31% gained a national qualification:
 - 13% at Level 4+
 - 9% at Level 3
 - 9% at Level 1-2
- 5% completed a limited credit programme

Loss of employment explained 17% of programme terminations, and job changes 10%



Main findings

- Training improved the average earnings of those who:
 - gained a level 4 qualification
 - males aged 16-24 years when training started (11%)
 - males aged 25+ years when training started (3%)
 - females (2%)
 - males who gained a level 3 qualification (2%)



Main findings

- Training did not improve the average earnings of:
 - females who gained a level 3 qualification
 - those who gained a level 1-2 qualification
 - those who completed a limited credit programme
 - those who gained no qualifications



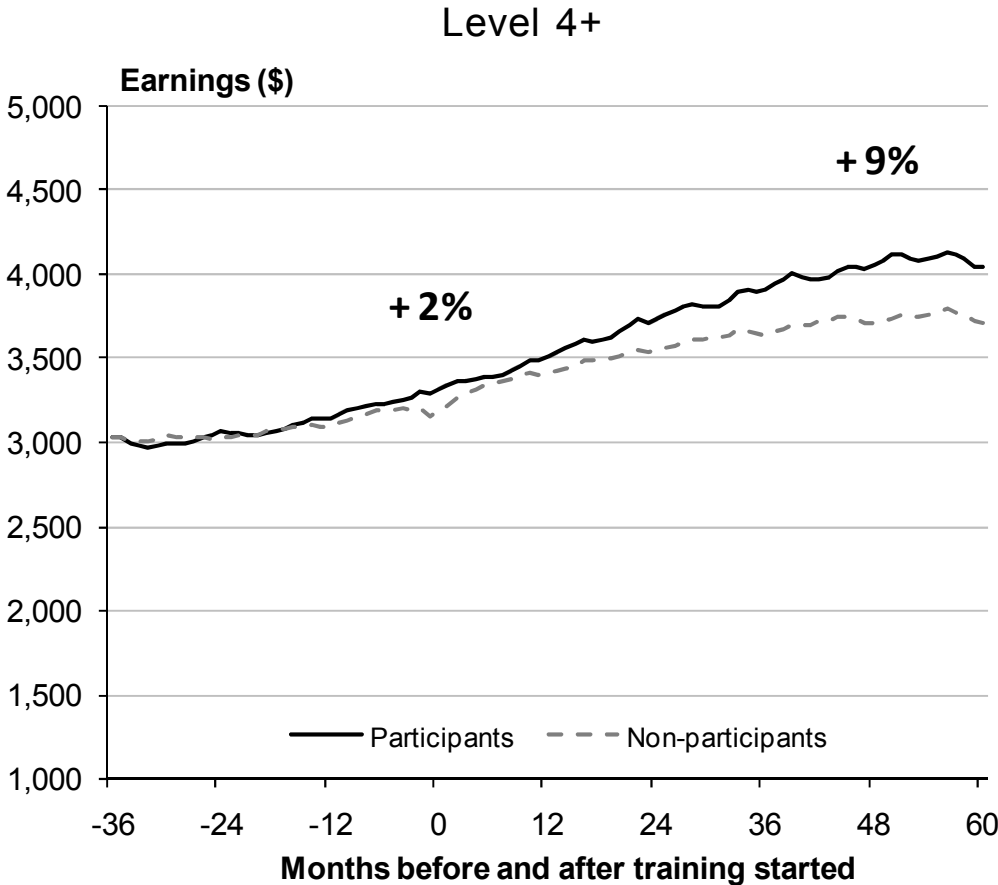
Main Findings

- Variation by duration, credits achieved, firm size, industry/ITO explained by differences in age and gender
- Employment rates were between 4-8% higher during and after training for those who gained a qualification
- Retention by employers and industries:
 - 50% of those who completed training were with the same employer 12 months later
 - 65% were employed in the same industry subgroup



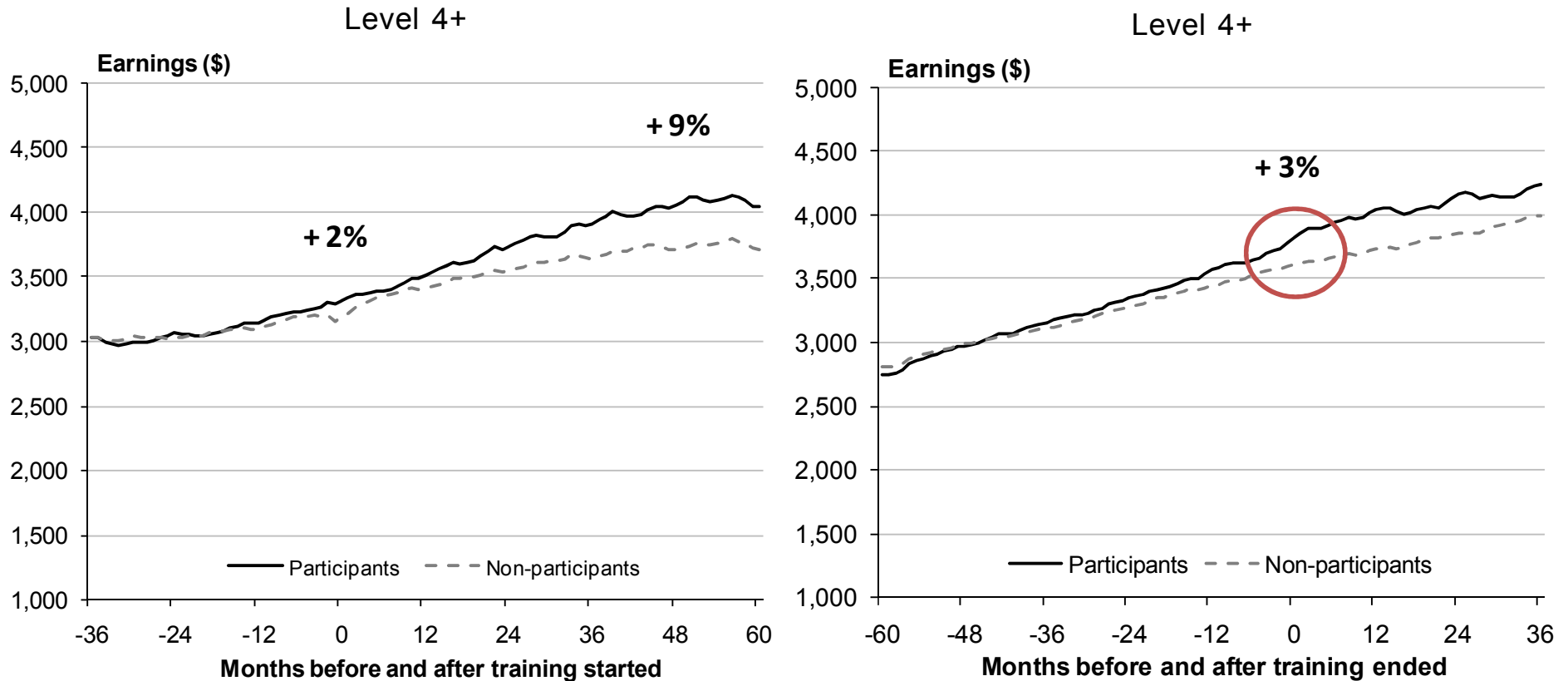
Average Monthly Earnings

In the months before and after training started



Level 4

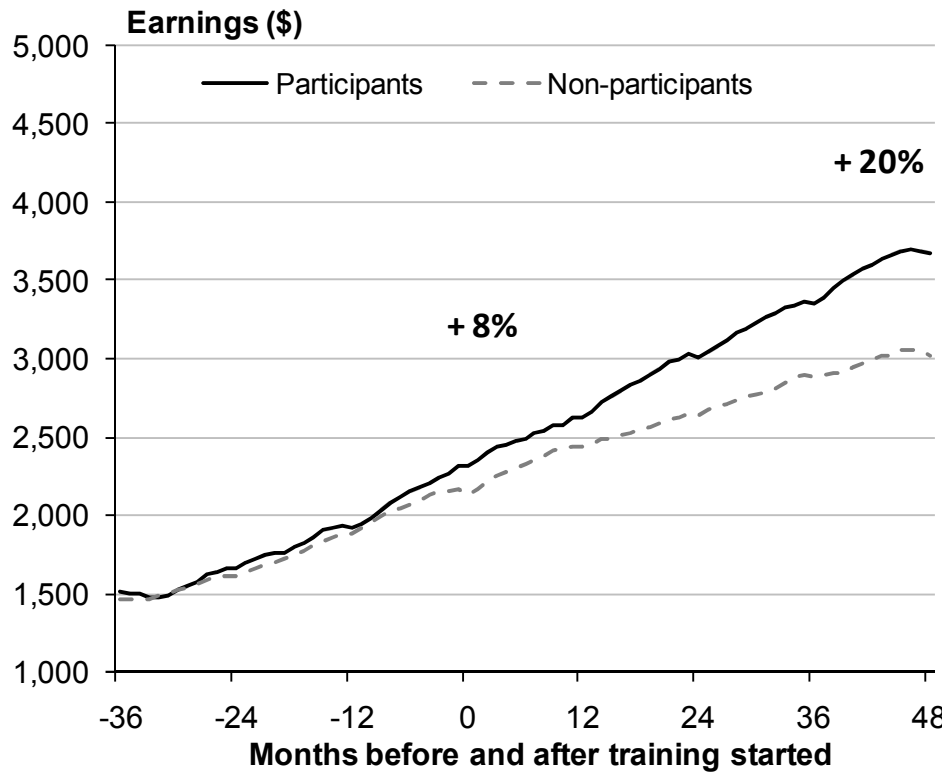
Average earnings improved 7% four years after training started, including 3% around the time training ended



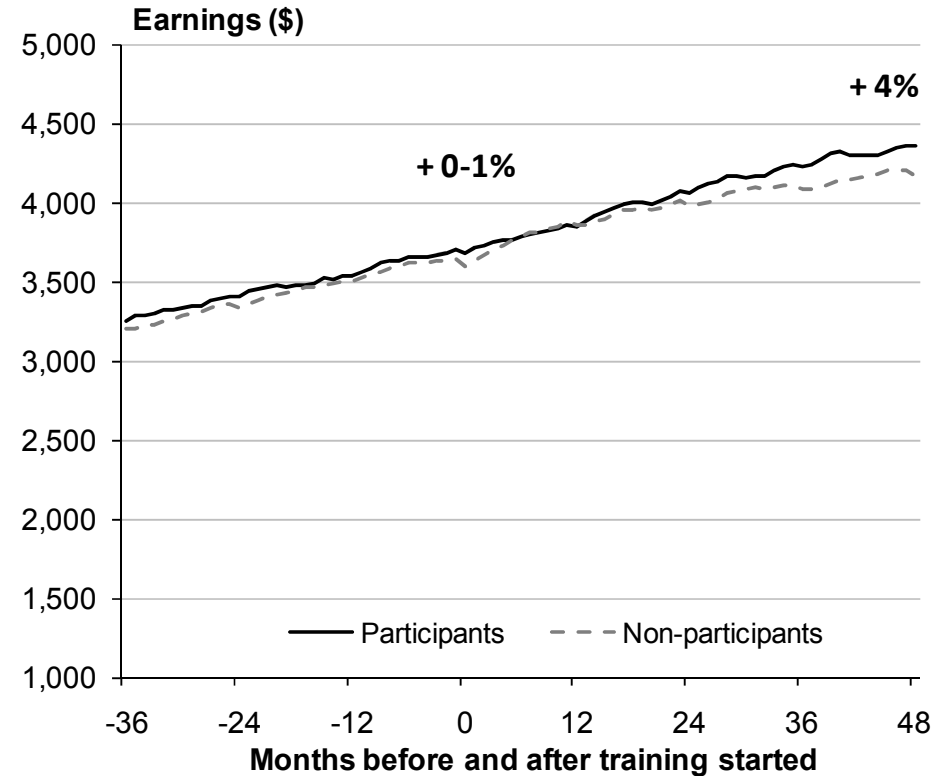
Level 4

Improvements in average earnings varied by sex and age

Males: 15–24 years

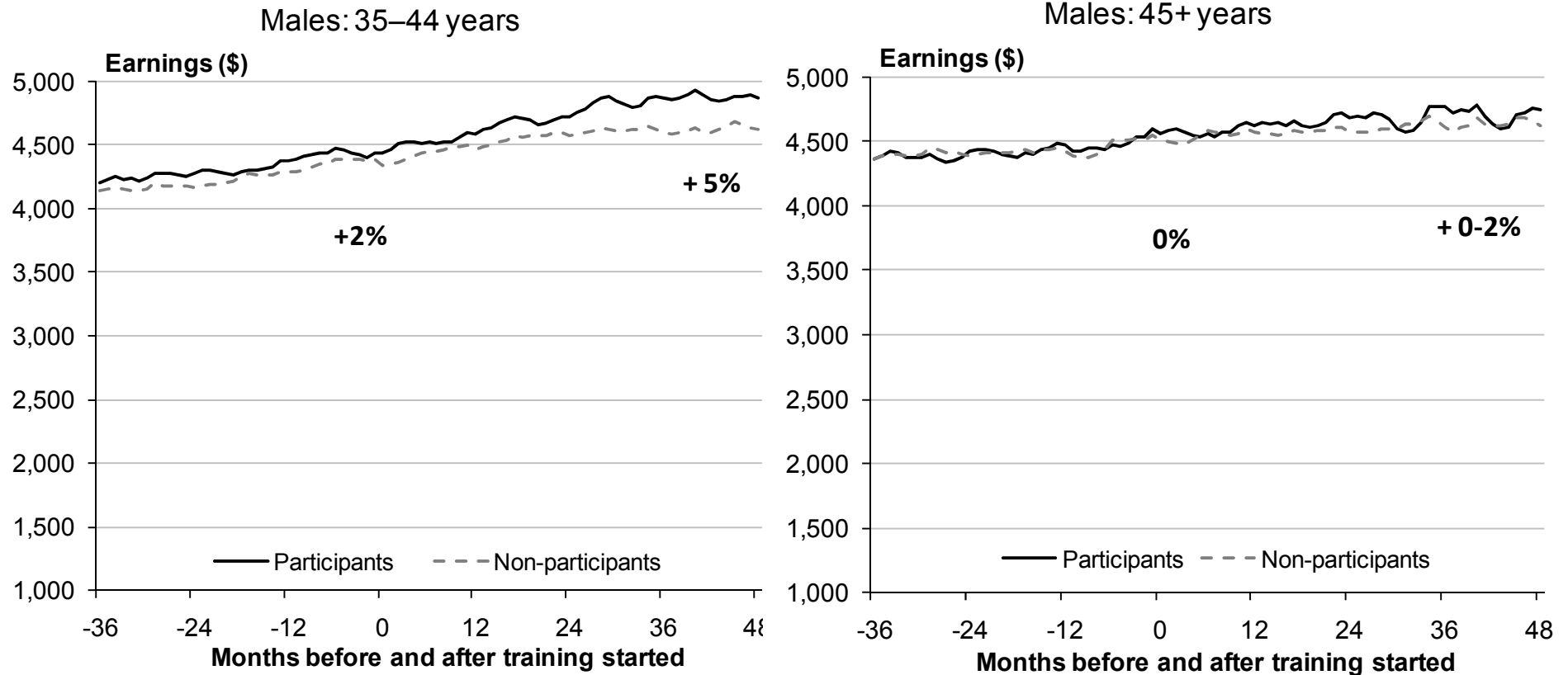


Males: 25–34 years



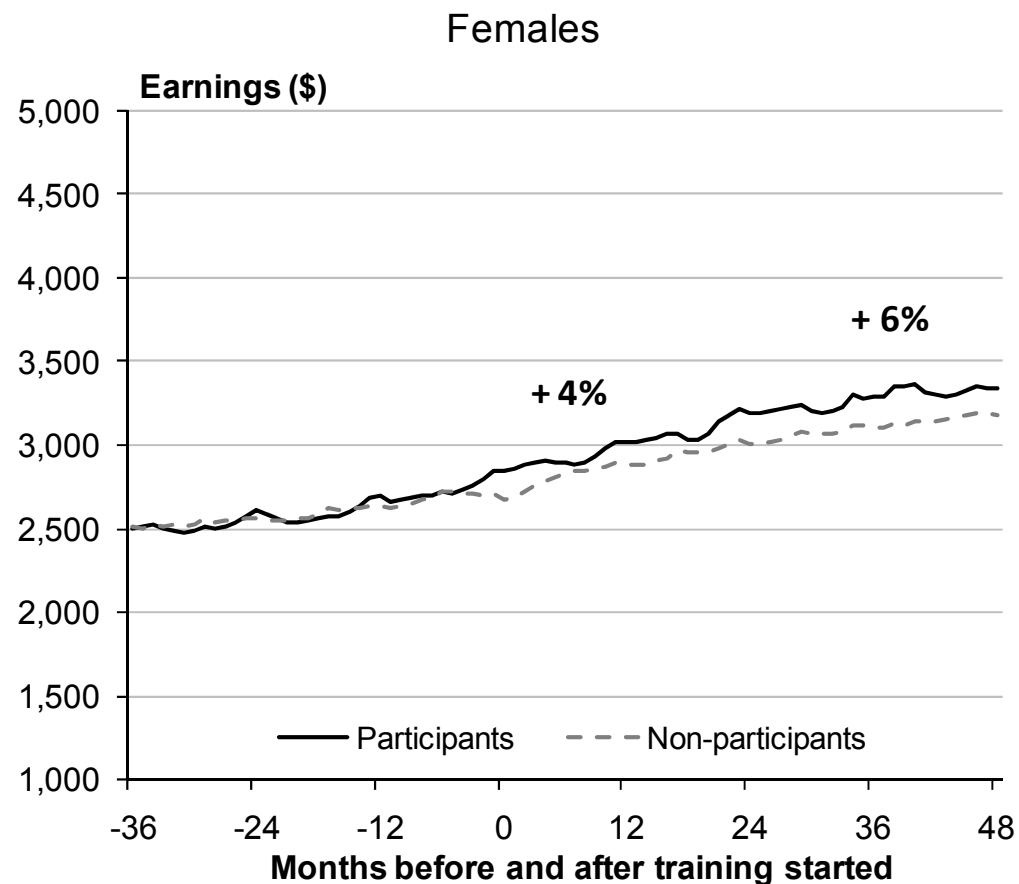
Level 4

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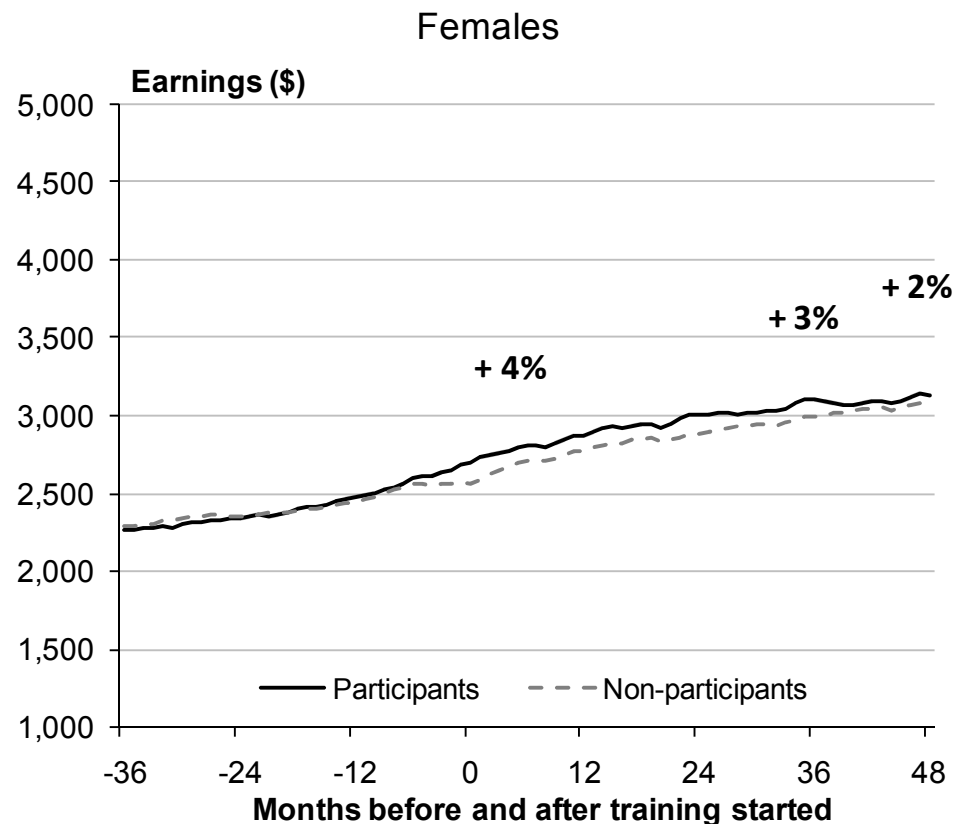
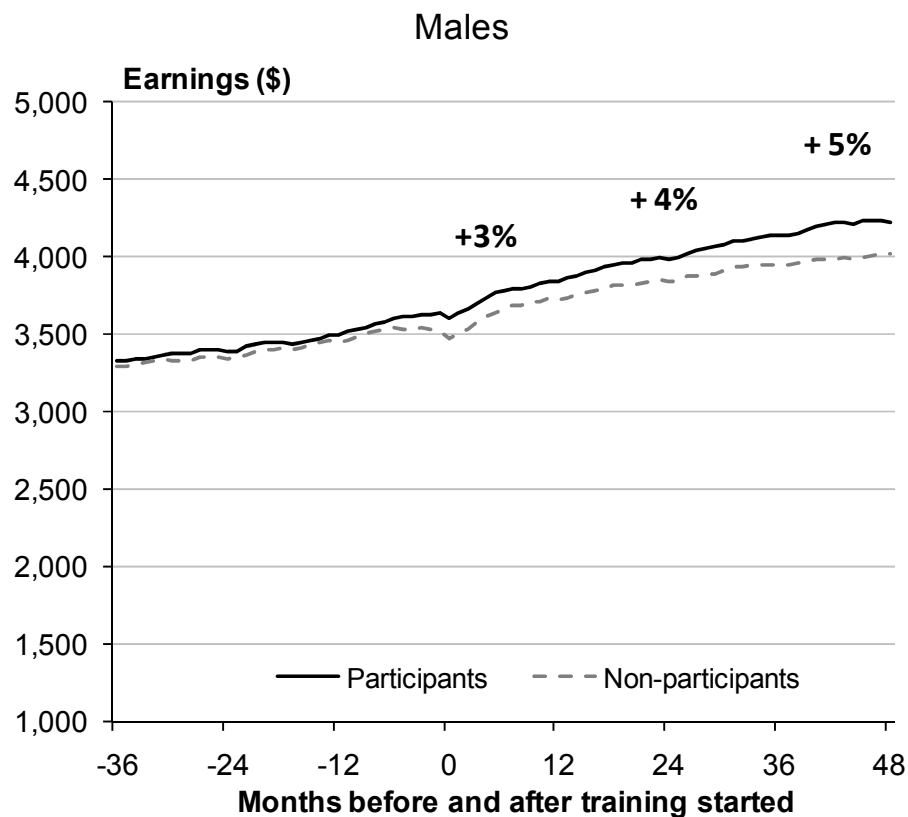
Level 4

Improvements in average earnings varied by sex and age



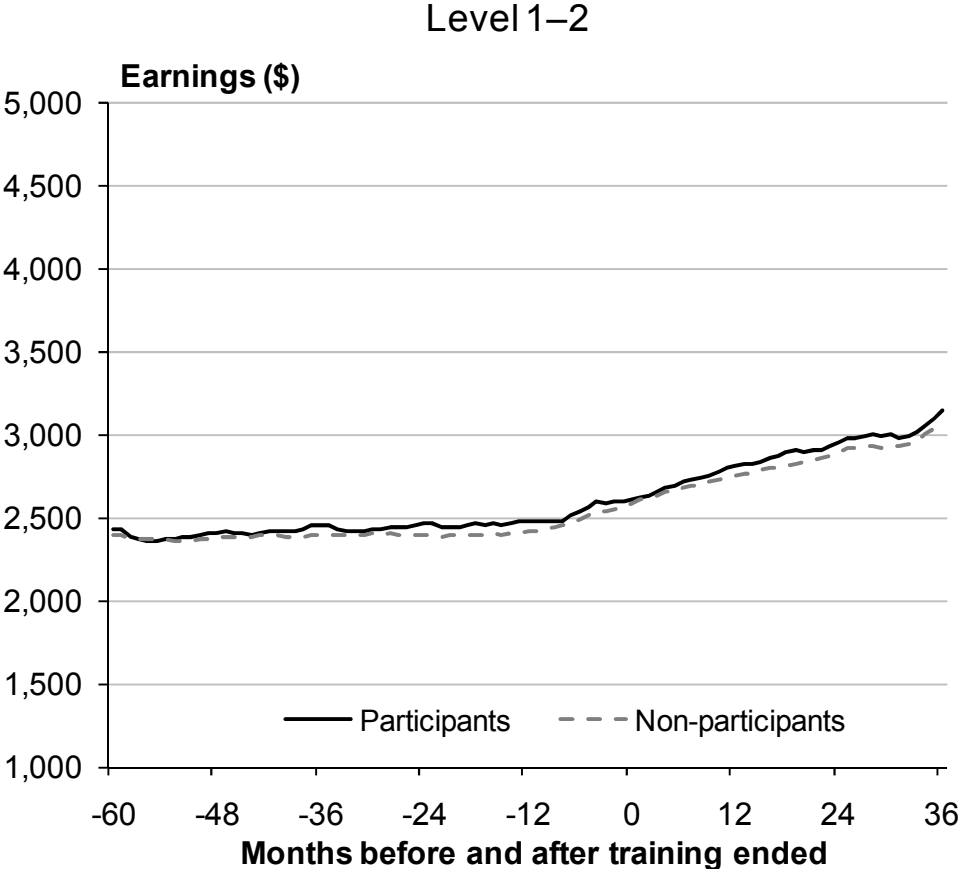
Level 3

Average earnings improved for males, but not for females



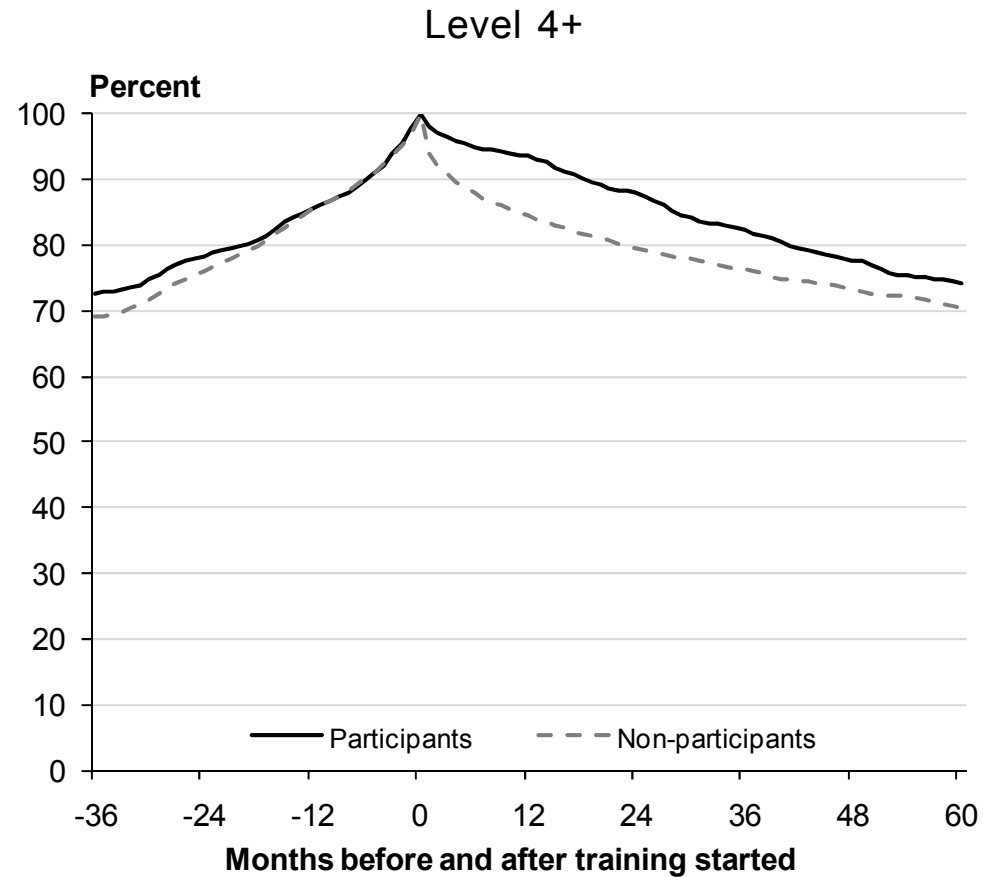
Level 1-2

Average earnings did not improve during the four years after training started, or around the time training ended



Employed

In the months before and after training started



Those who left training during 2003–05

Highest qualification gained	Percentage of learners	Improvement in average earnings (%)
Level 4	13	7
Males 15–24 years	4	11
Males 25+ years	6	3
Females	3	2
Level 3	9	1
Males	6	2
Females	3	0
Level 1–2	9	0
Completed a limited credit programme	5	0
No qualification gained	64	0



Caveats

- What would learners outcomes have been if they hadn't participated in training?
- Selection effects - who decides to start training and why
- Earnings may have increased for participants anyway
- Employment effects
- In come cases average earnings increased *before* training started
- Earnings increases around the time training ended attributable to training



Future Research

Does institution-based tertiary education improve earnings?

Add education and training data for 2007 & 08

- Modern Apprenticeships
- Industry and employer analysis
- Are there links between firm productivity and training?
- Youth transitions

