

The Centre for Research on the Wider Benefits of Learning



www.learningbenefits.net

The effects of adult learning
on
health and social cohesion

Leon Feinstein, Cathie Hammond, John Preston & Laura
Woods

www.learningbenefits.net

1. Introduction

Motivation

- Finding that AL doesn't impact on wages
- Attempt to establish relative efficacy of investments
- Opportunity to reduce inequality and enhance social inclusion
- Fieldwork findings from Centre for Research on the Wider Benefits of Learning

Reasons for wider benefits of AL

- generic cognitive development
- positional benefits
- emotional development
- economic effects
- peer group effects
- effects due to the development of specific skills

Findings from WBL fieldwork

- AL can lead to increased confidence and future orientation, and hence healthier behaviour
- importance of context and type of provision
- complexity of learning-life relationships
- interplay between outcomes of AL

2. Data and descriptives

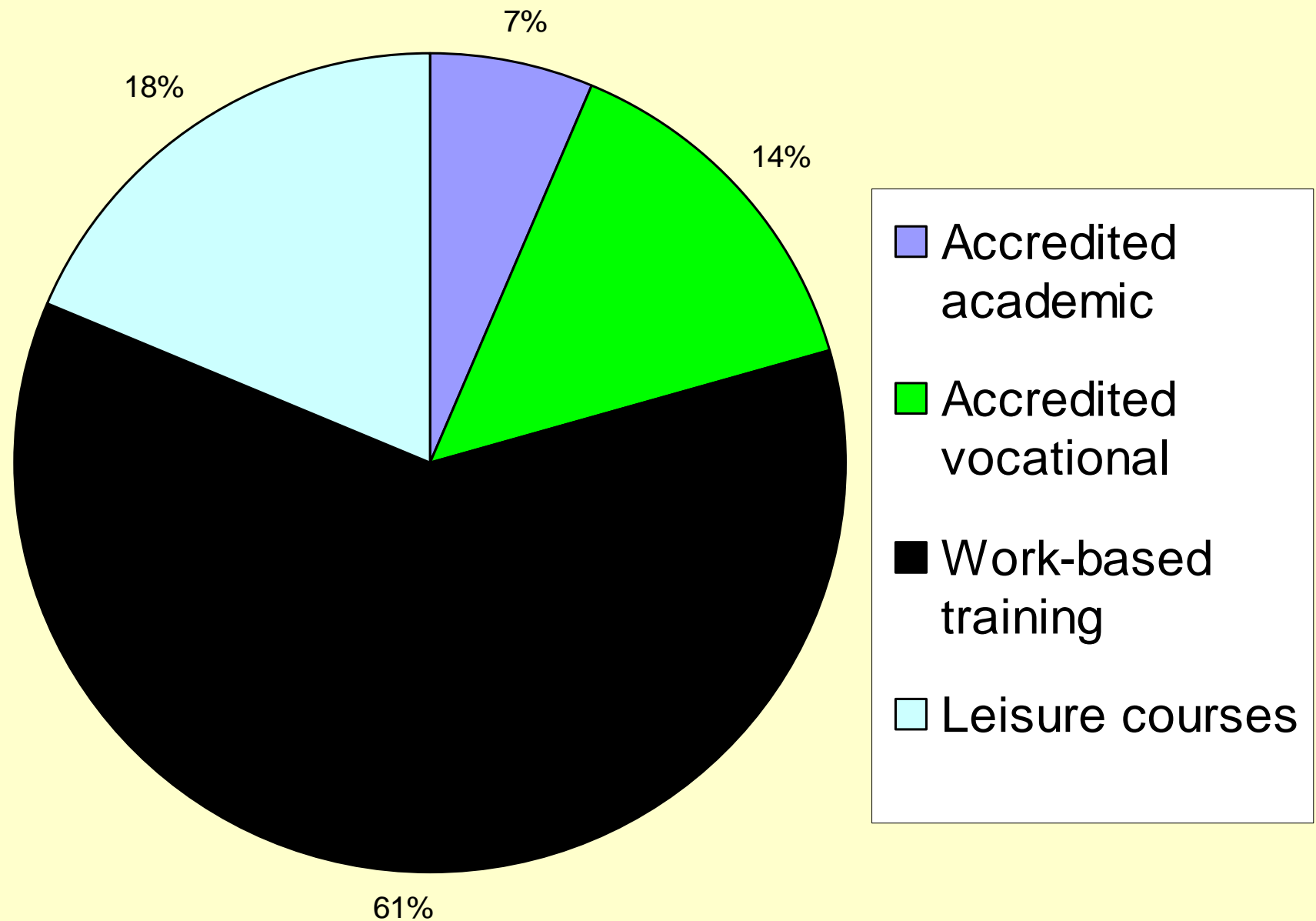
The 1958 cohort data

- Educational achievement in childhood
- AL (1991-2000)
- Changes in health, social attitudes and civic participation (1991-2000)
- Measures of prior learning, childhood advantage and circumstances in adulthood (1958-2000)

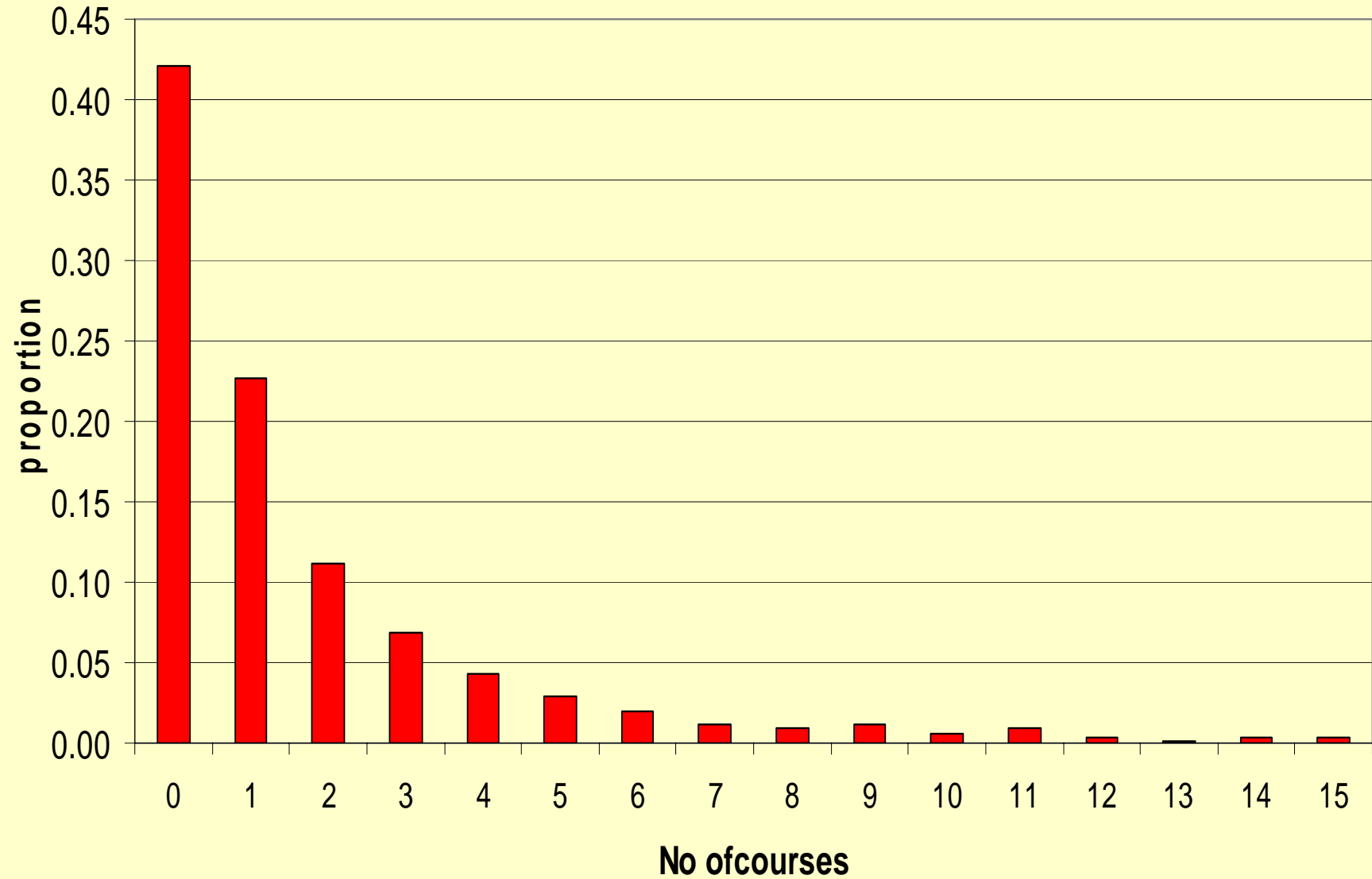
AL (1991-2000)

- accredited academic courses
- accredited vocational courses
- work-related courses
- leisure courses

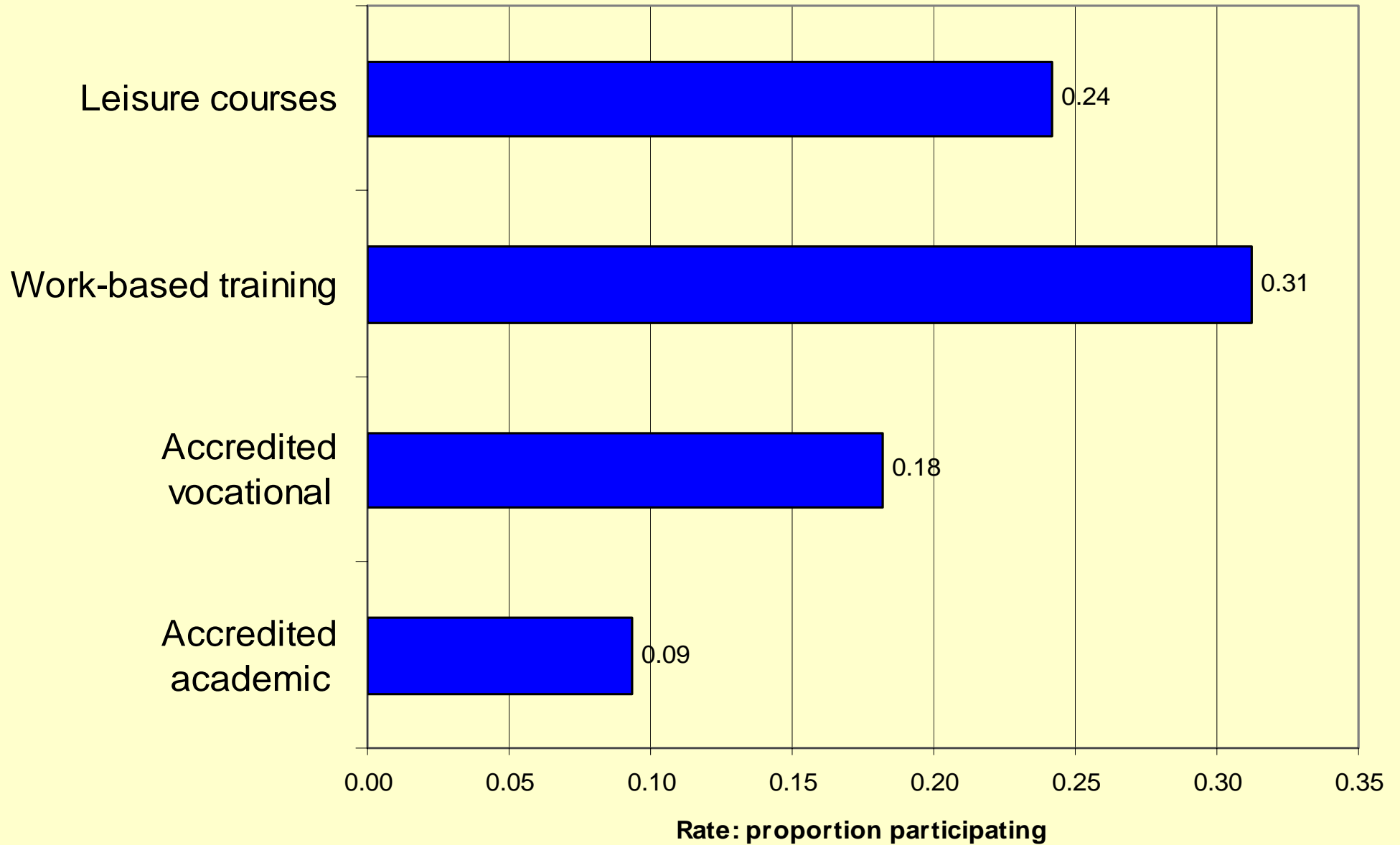
Adult learning, by course type



The take-up of adult learning



Participation rates



The health outcomes

1. Giving-up smoking: roughly 30% smoked in 1991, 28% had given up in 2000.
2. Increase in exercise: 37% increased their level of exercise
3. Change in life-satisfaction

3. Life-satisfaction

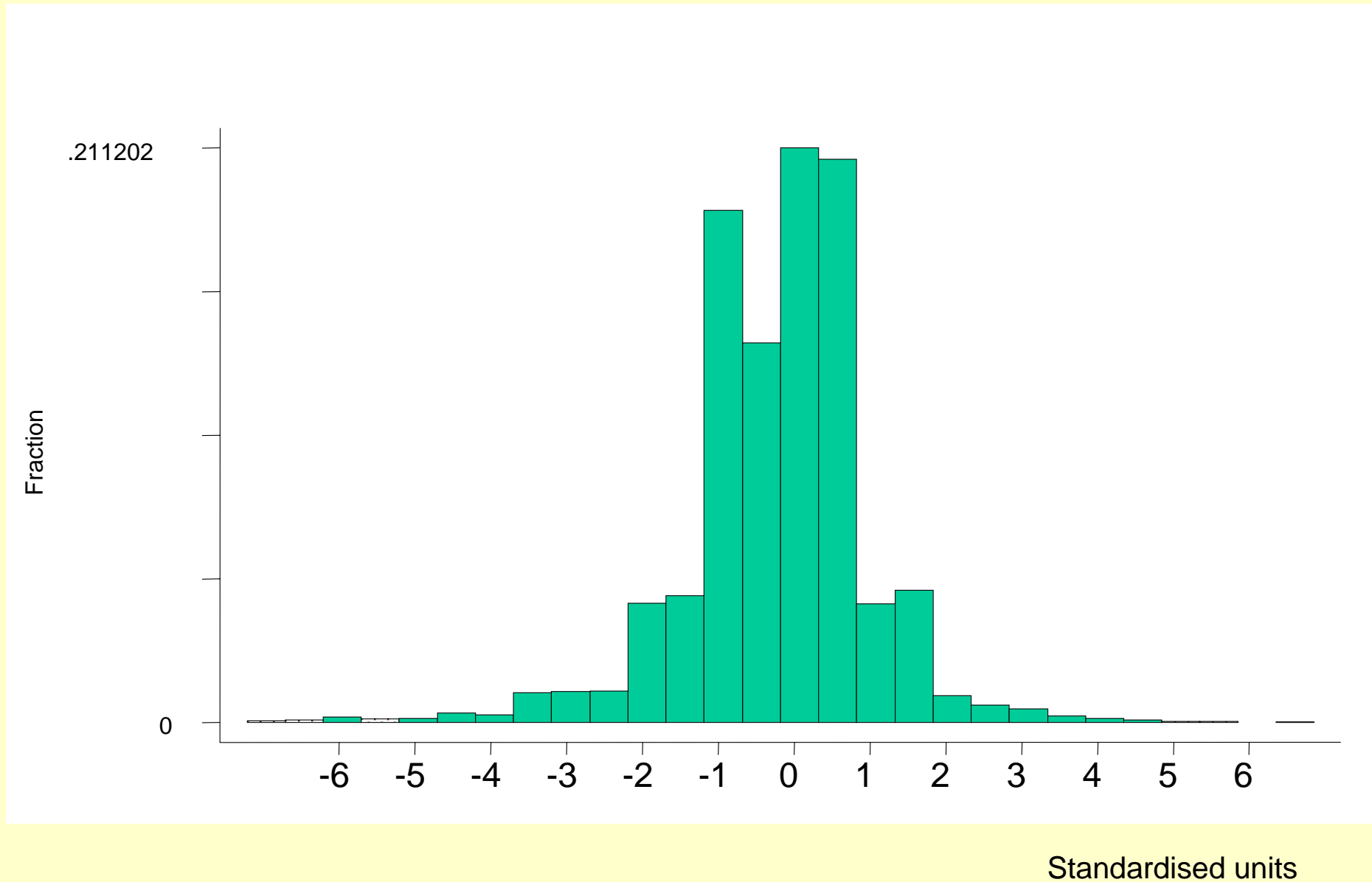
On a scale from 0-10:

- how satisfied are you about “the way your life has turned out so far;”
- how satisfied do you “expect to be in ten years time.”

Average score = 8

Average change = -0.2

Changes in life satisfaction



The civic participation and social cohesion outcomes

4. Change in race tolerance
5. Change in political cynicism
6. Increase in number of memberships (12%)

4. Race tolerance

On a scale from 1-5:

- “It is alright for different races to get married”
- “I would not mind if a family from another race moved in next door to me”
- “I would not mind if my child went to a school where half the children were of another race”
- “I would not mind working with other races”
- “I would not want a person from another race to be my boss”

Average score = 3.8

Average change = 0.2

5. Political cynicism

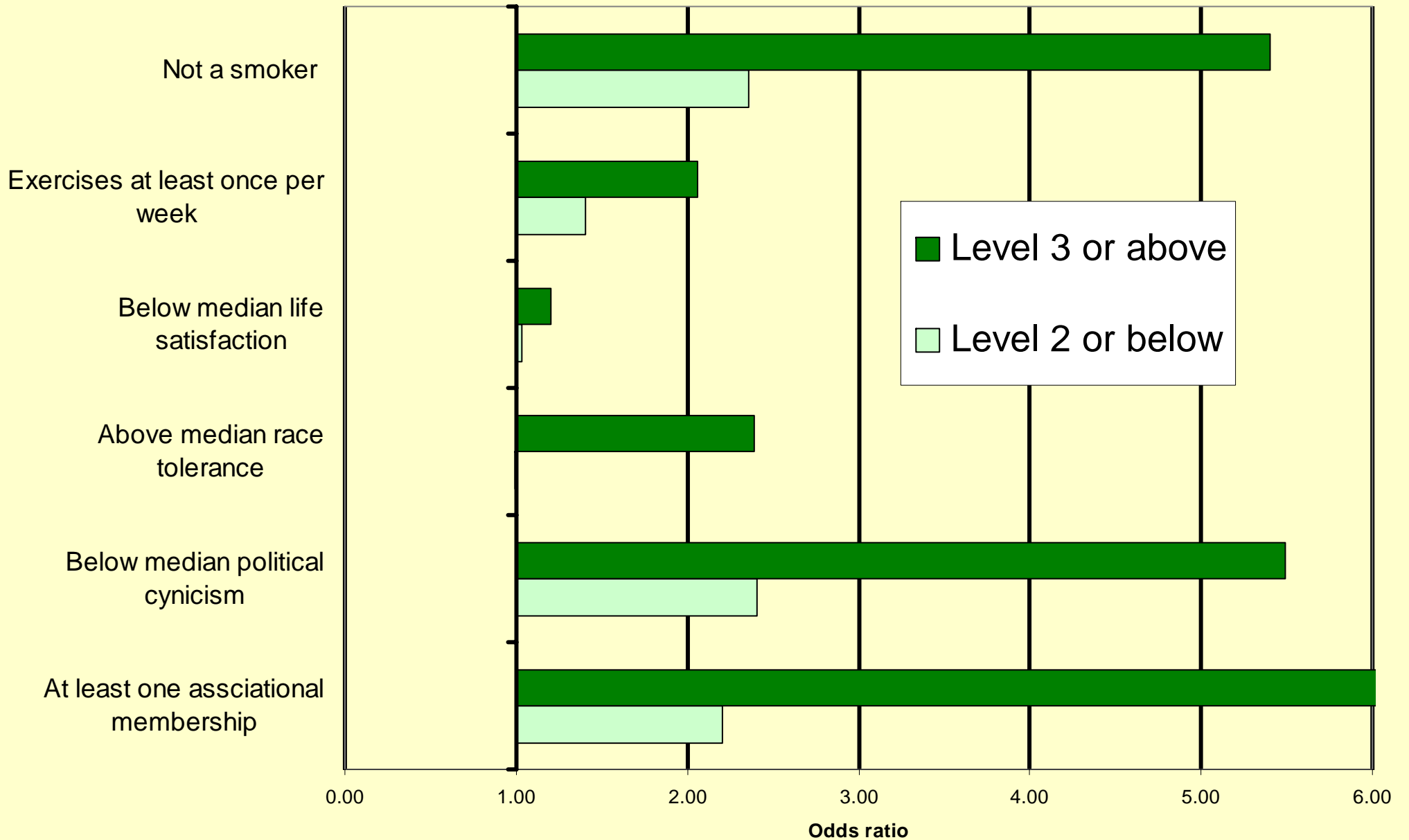
On a scale from 1-5:

- “None of the political parties would do anything to benefit me”
- “It does not really make much difference which political party is in power in Britain”
- “Politicians are mainly in politics for their own benefit and not for the benefit of the community”

Average score = 2.8

Average change = 0.44

Odds ratios for age 33 outcomes



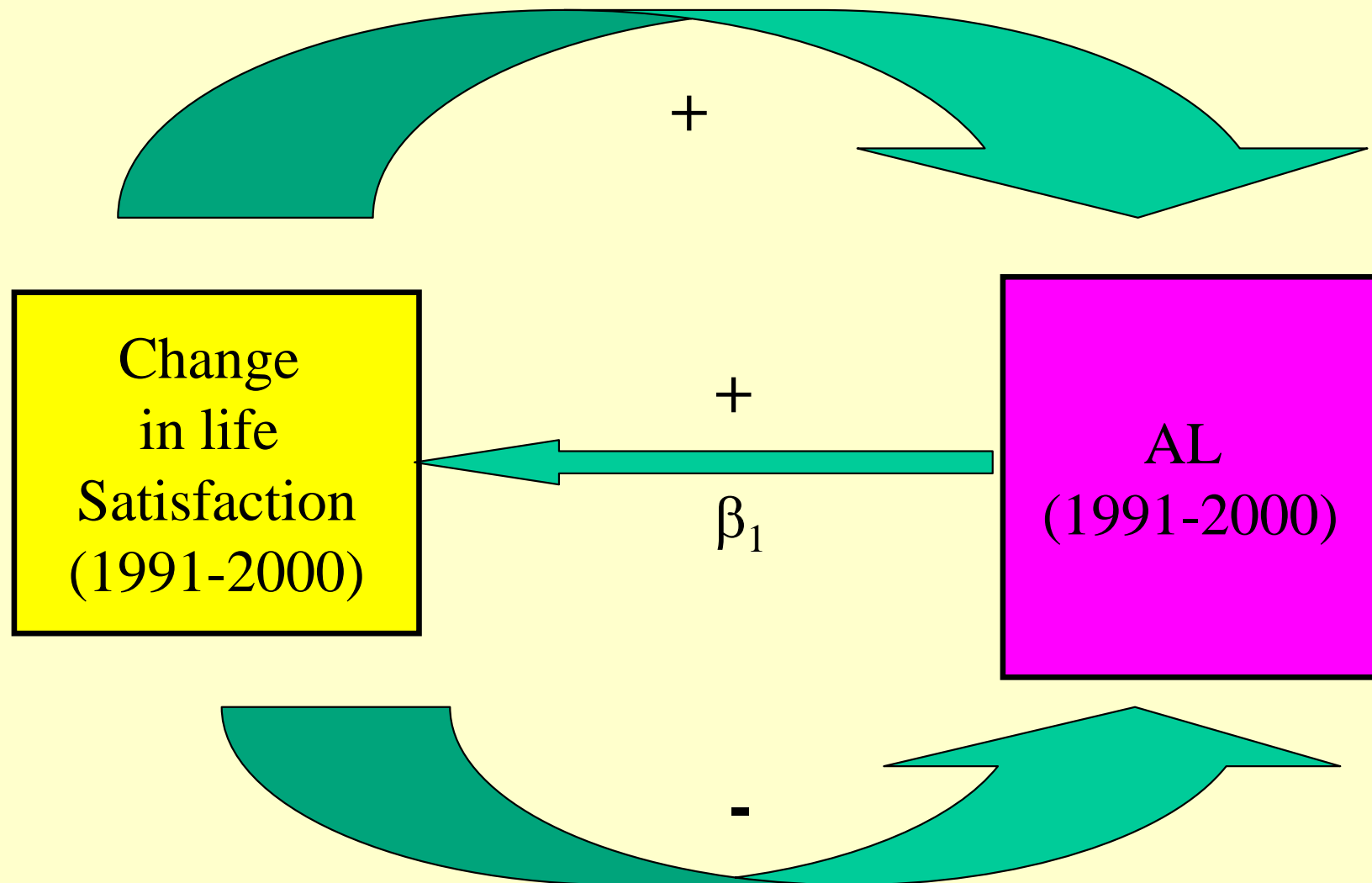
3. Methodological issues

Selection bias

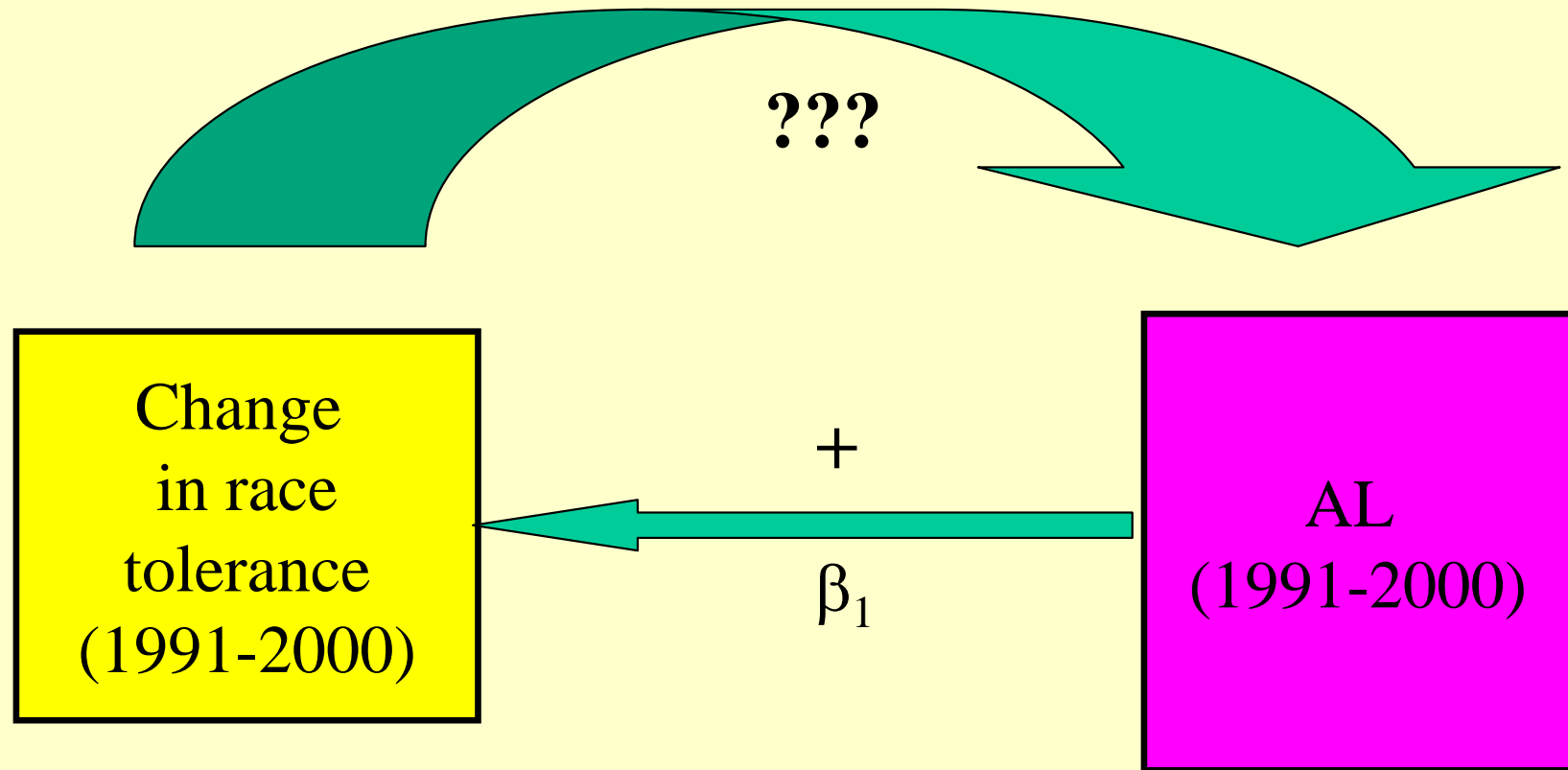
1. Reverse causality: e.g. you feel happier so you enrol
2. Confounding: e.g. you win lottery so you feel happier and you enrol on a course

In both cases a spurious effect of AL results

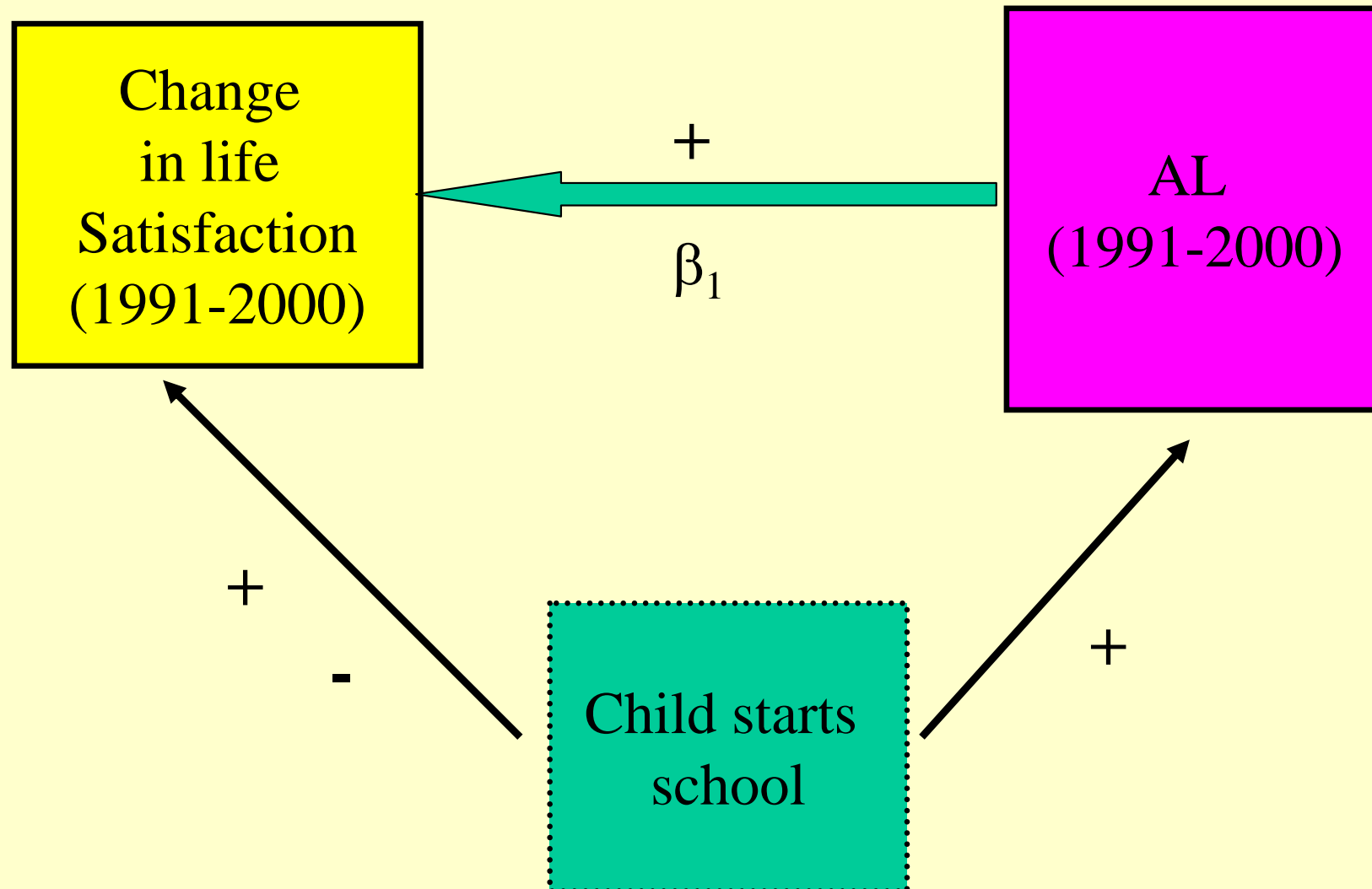
1. Reverse causality selection: Life satisfaction



Reverse causality selection: Race tolerance



2. Confounding selection: Life satisfaction



Other confounders

- Unemployment
- Promotion/demotion
- Financial change
- Change in well-being
- Change in attitudes/aspirations
- Other family changes

Control sets

- Changes between 33 and 42
- Life circumstances at 33
- Childhood circumstances
- The lagged dependent variable

Control set 1: changes

- Unemployment shocks
- Changes in partnership status
- Changes in child-care
- SES changes
- Home ownership changes

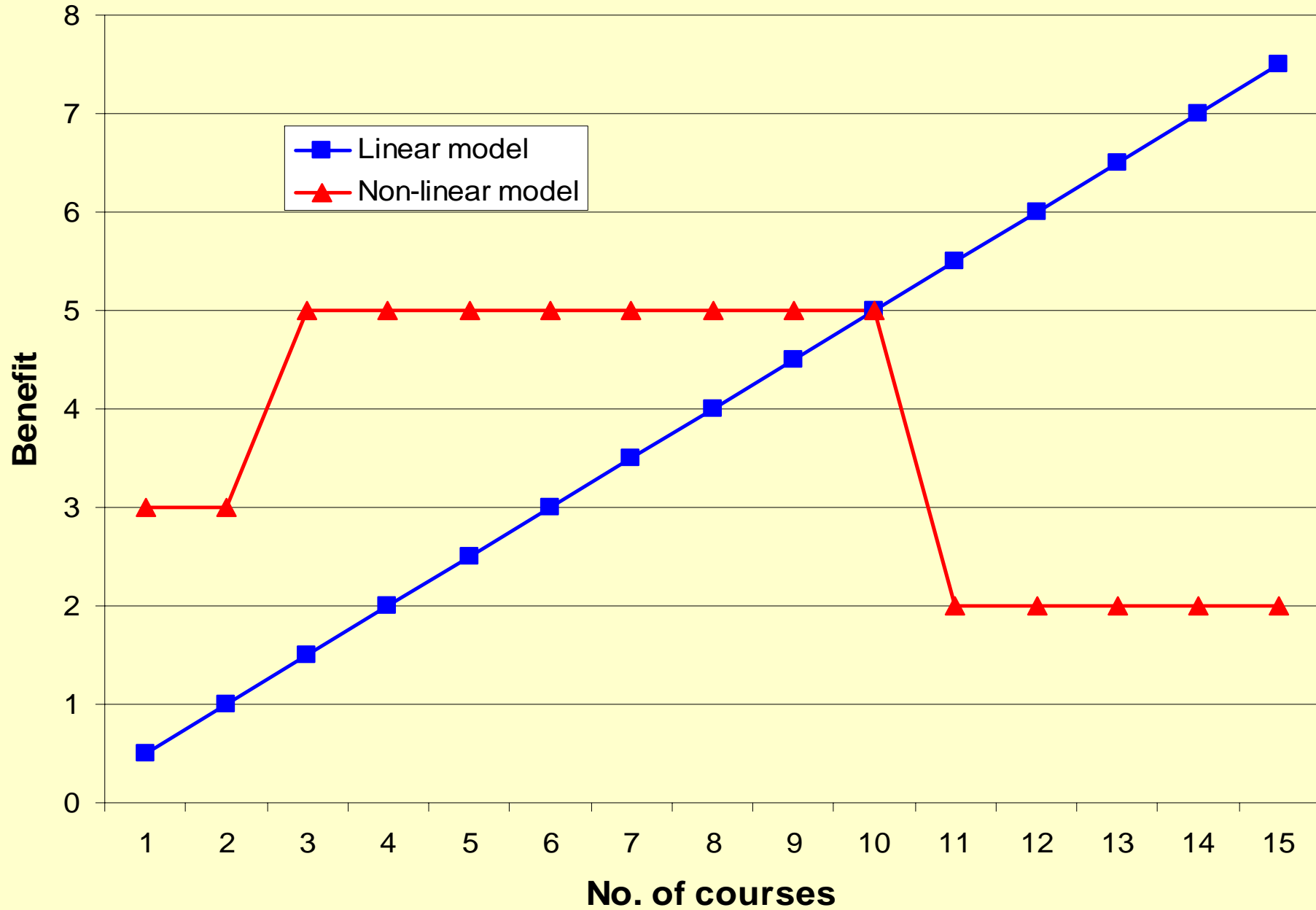
Control set 2

- Education levels (academic and vocational)
- SES
- Partnership status
- Home ownership
- Unemployment
- Depression and self-efficacy

Control set 3

- SES of parents
- Free meals status and financial hardship
- Overcrowding in the home
- Parents' interest in education
- Anti-social behaviour at 11
- Academic test scores at 11

Different specifications of the benefits of AL



4. Results

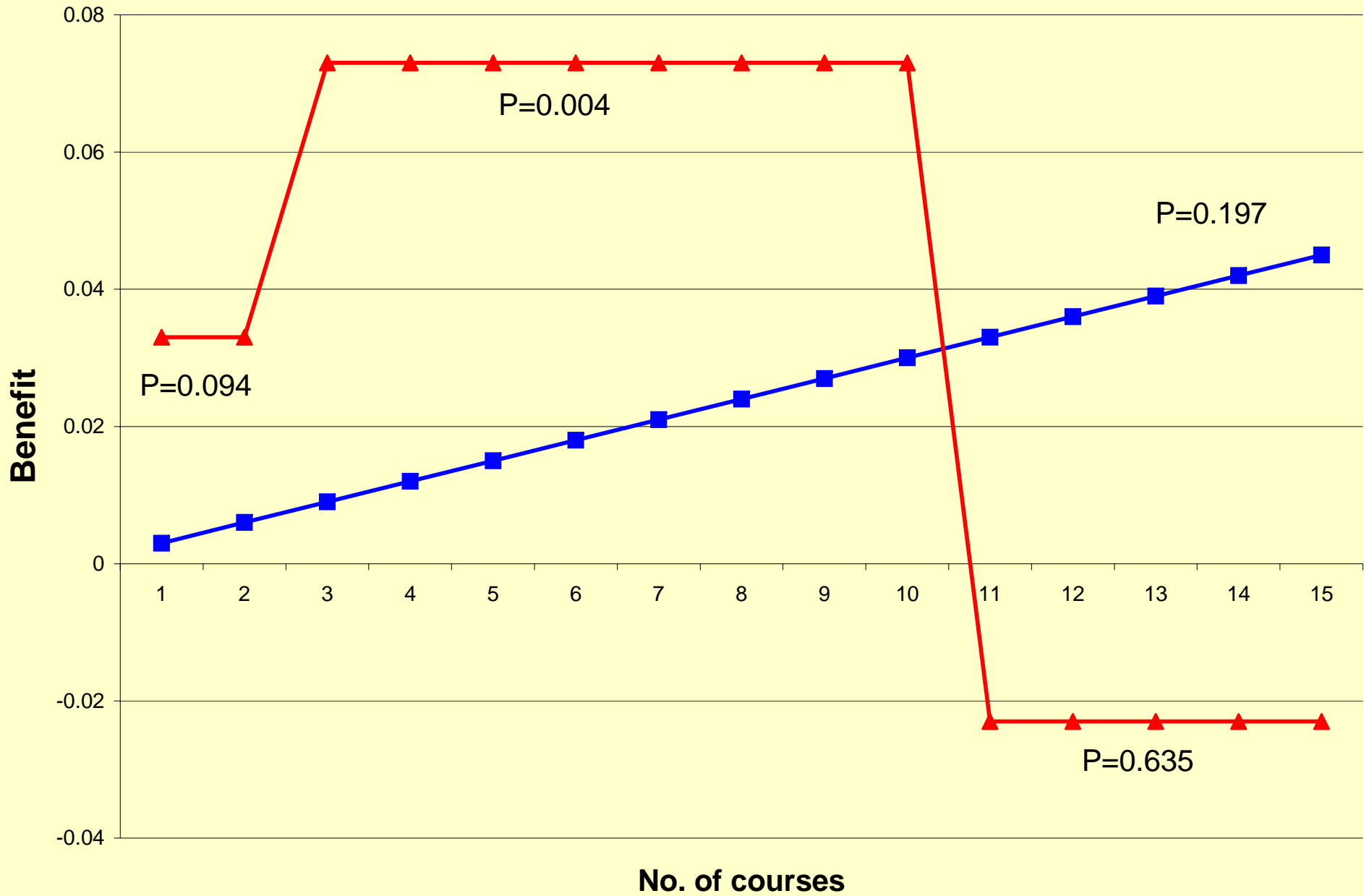
Health results (linear)

	Estimate	P-value
Giving up smoking	0.003	0.197
Increased exercise	0.004	0.006
Change in life-satisfaction	0.007	0.007

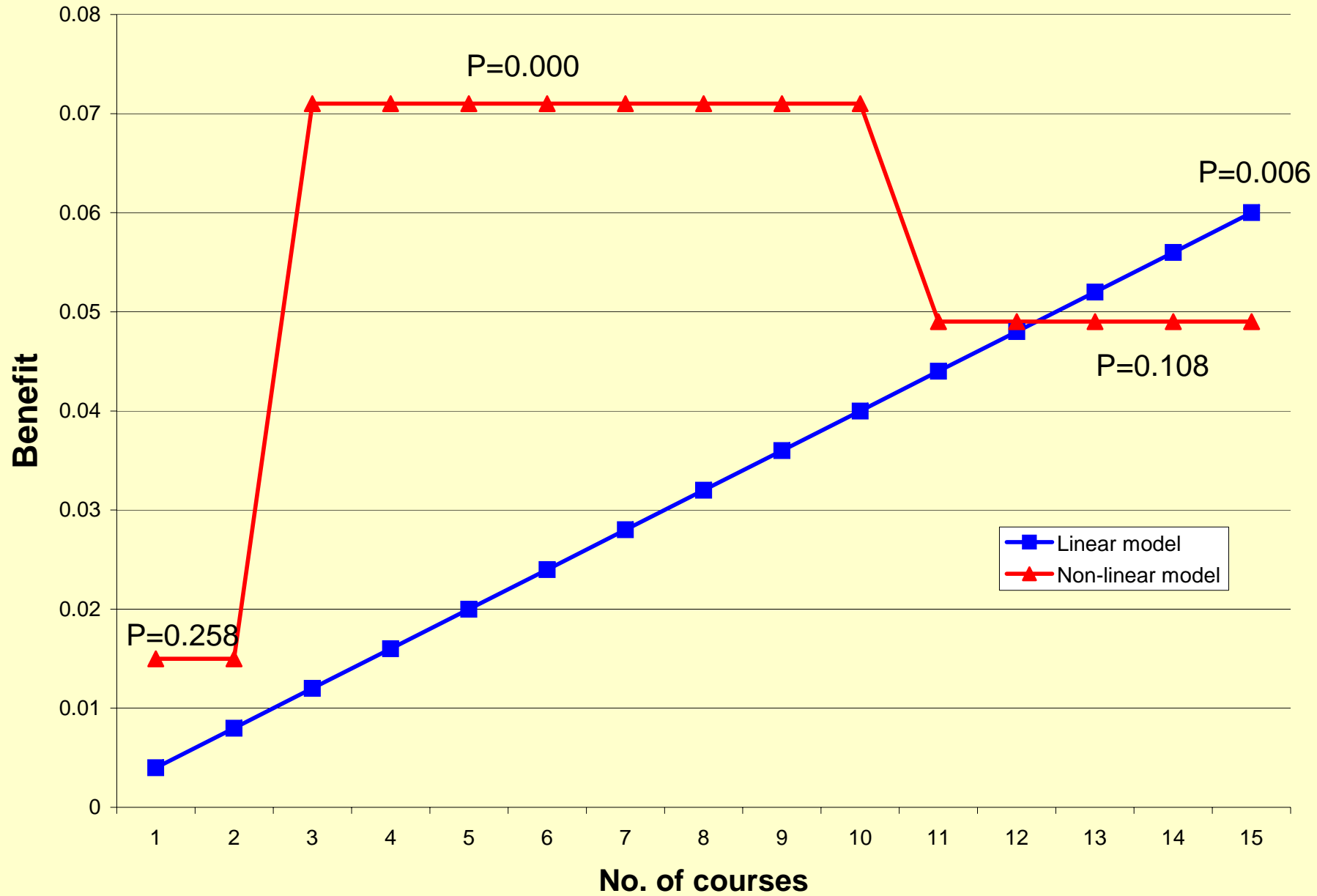
Social cohesion results (linear)

	Estimate	P-value
Change in race tolerance	0.013	0.000
Change in political cynicism	-0.002	0.150
Increased no. of memberships	0.003	0.000

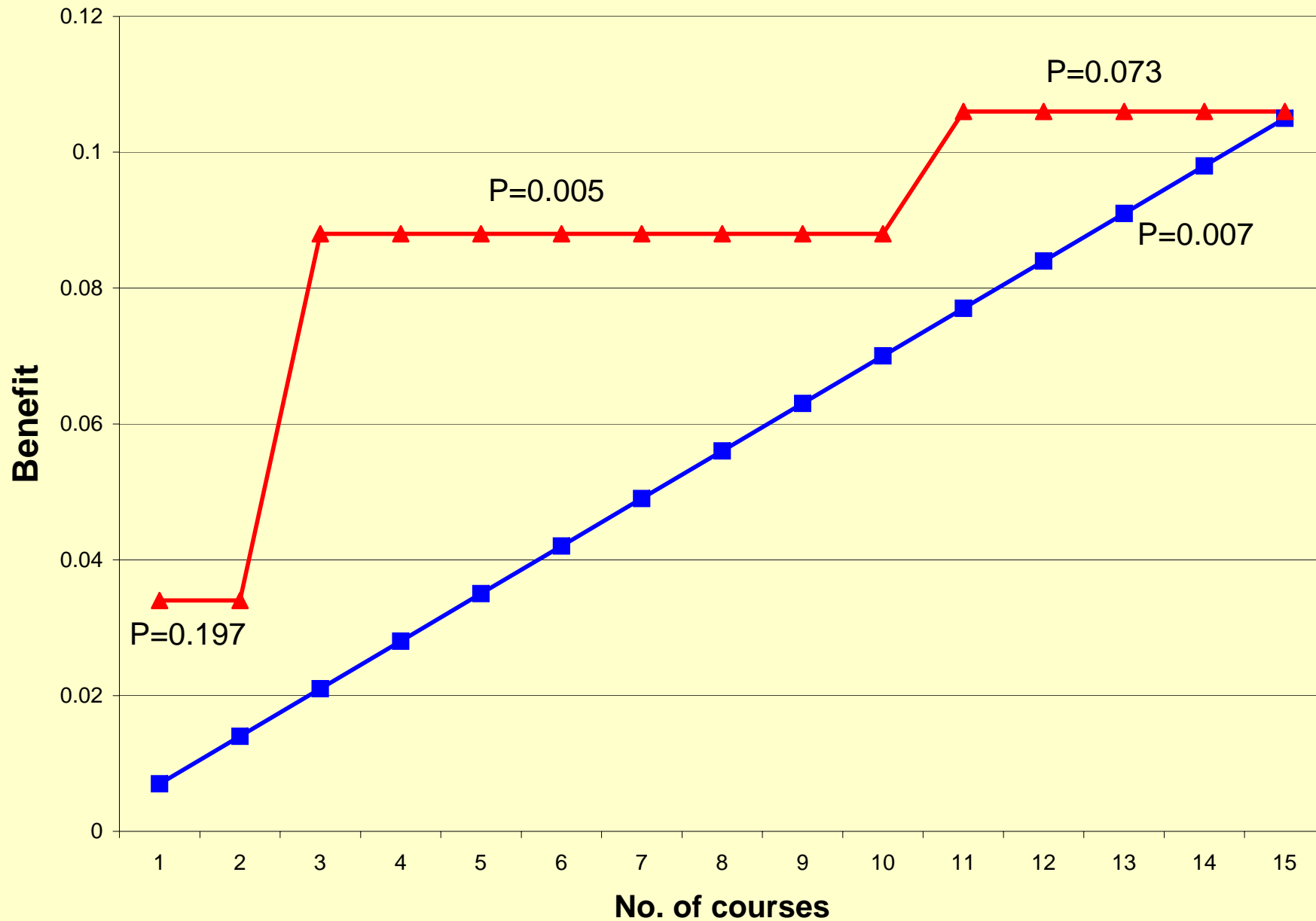
Effects of AL on giving up smoking



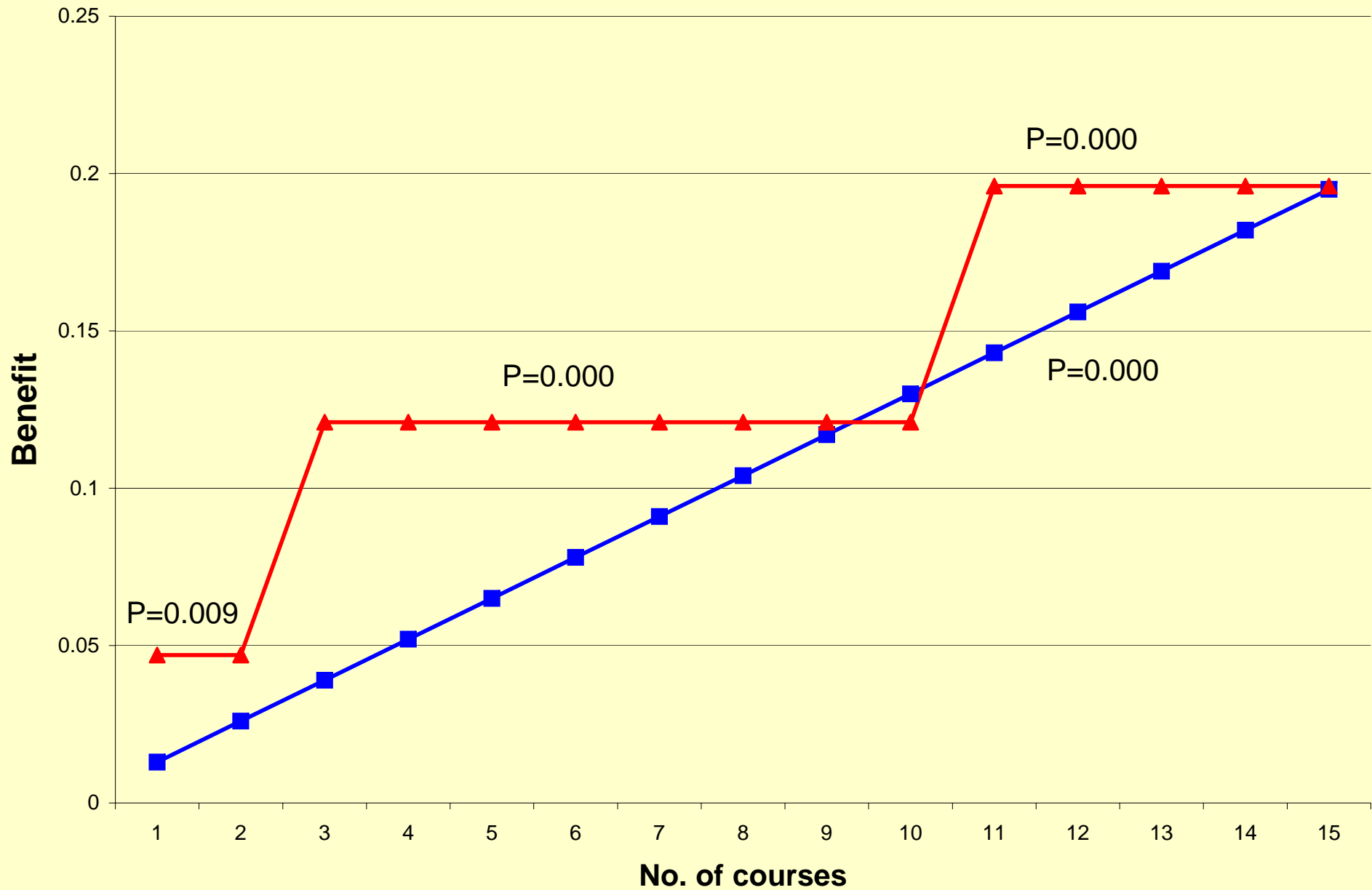
Effects of AL on increased level of exercise



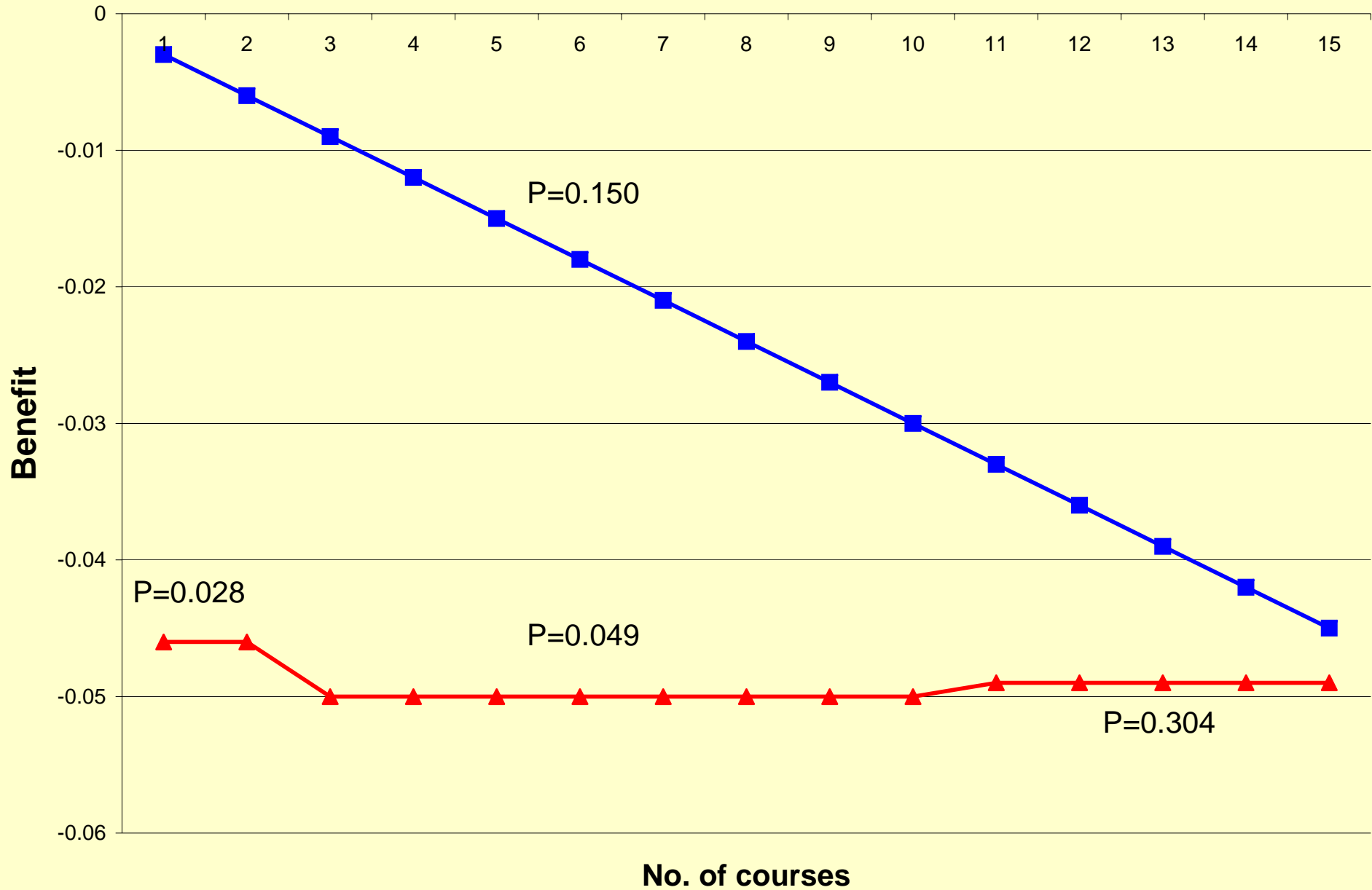
Effects of AL on change in life satisfaction



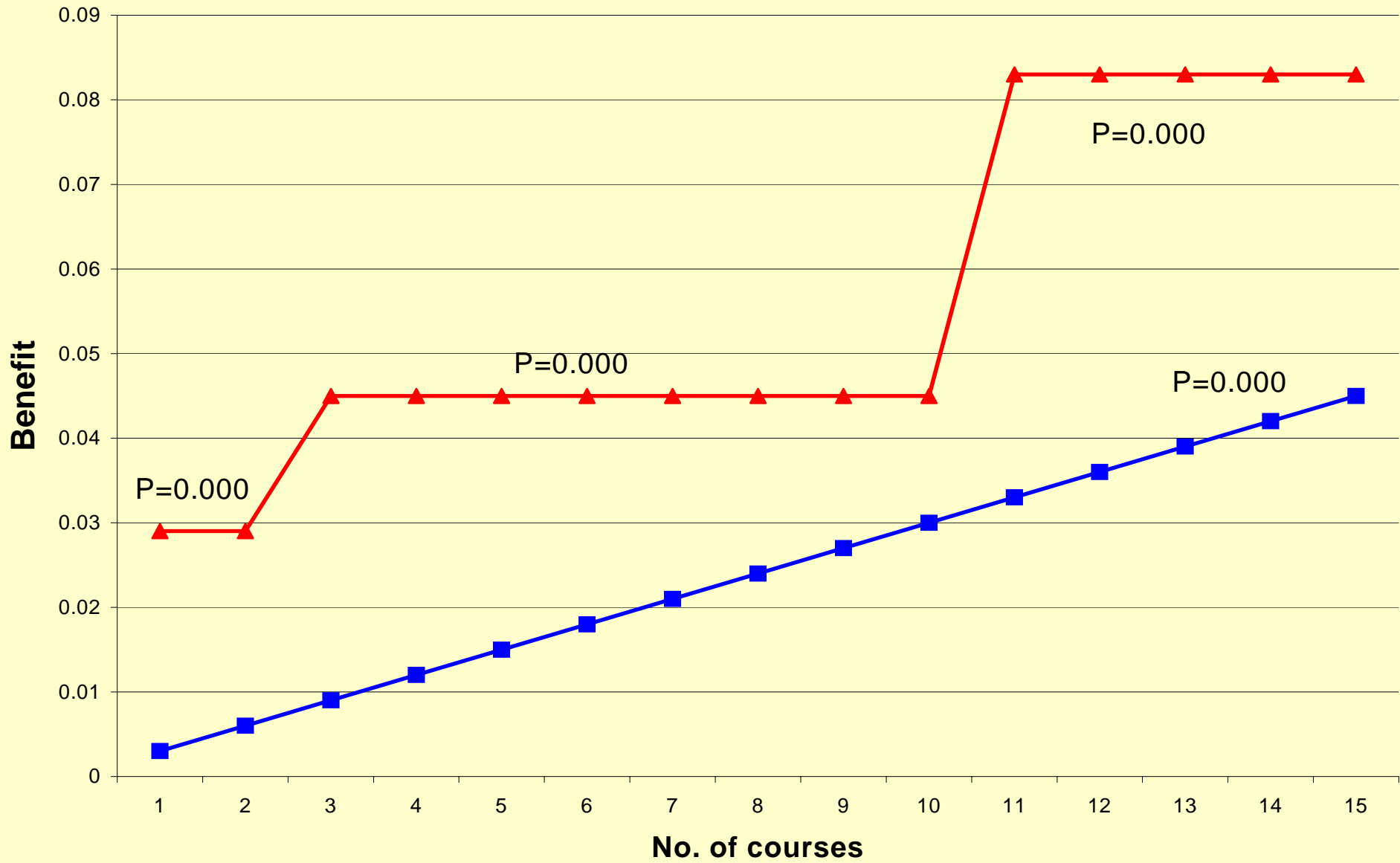
Effects of AL on change in race tolerance



Effects of AL on change in political cynicism



Effects of AL on increase in memberships



What do these numbers mean?

- We can compare them to the predicted changes in these outcomes for those who took no courses

	Effect of 1 or 2 courses (1)
Smoking	0.033
Exercise	0.015
Life-sat.	0.034
Race tol.	0.047
Pol. cynic.	-0.046
Mem'ships	0.029

	Effect of 1 or 2 courses (1)	Predicted effect, if no courses taken (2)
Smoking	0.033	0.244
Exercise	0.015	0.383
Life-sat.	0.034	-0.251
Race tol.	0.047	0.140
Pol. cynic.	-0.046	0.470
Mem'ships	0.029	0.086

	Effect of 1 or 2 courses (1)	Predicted, if no courses (2)	Relative effect (1) / (2)
Smoking	0.033	0.244	0.13
Exercise	0.015	0.383	0.04
Life-sat.	0.034	-0.251	-0.14
Race tol.	0.047	0.140	0.34
Pol. cynic.	-0.046	0.470	-0.10
Mem'ships	0.029	0.086	0.34

What about course types?

We introduce 4 separate variables into the regressions:

- Academic accredited
- Vocational accredited
- Work-based courses
- Leisure courses

Linear results presented

Academic accredited

	Effect	P-value
Smoking	0.020	0.239
Exercise	0.019	0.070
Life-sat.	0.043	0.047
Race tol.	0.086	0.000
Pol. cynic.	-0.043	0.015
Mem'ships	0.006	0.256

Vocational accredited

	Effect	P-value
Smoking	0.016	0.122
Exercise	0.008	0.250
Life-sat.	-0.014	0.335
Race tol.	0.023	0.018
Pol. cynic.	0.006	0.624
Mem'ships	0.004	0.297

Work-based

	Effect	P-value
Smoking	0.000	0.975
Exercise	0.001	0.203
Life-sat.	0.010	0.002
Race tol.	0.010	0.000
Pol. cynic.	-0.002	0.449
Mem'ships	0.002	0.006

Leisure courses

	Effect	P-value
Smoking	0.023	0.013
Exercise	0.016	0.002
Life-sat.	-0.011	0.287
Race tol.	0.013	0.064
Pol. cynic.	-0.010	0.233
Mem'ships	0.013	0.000

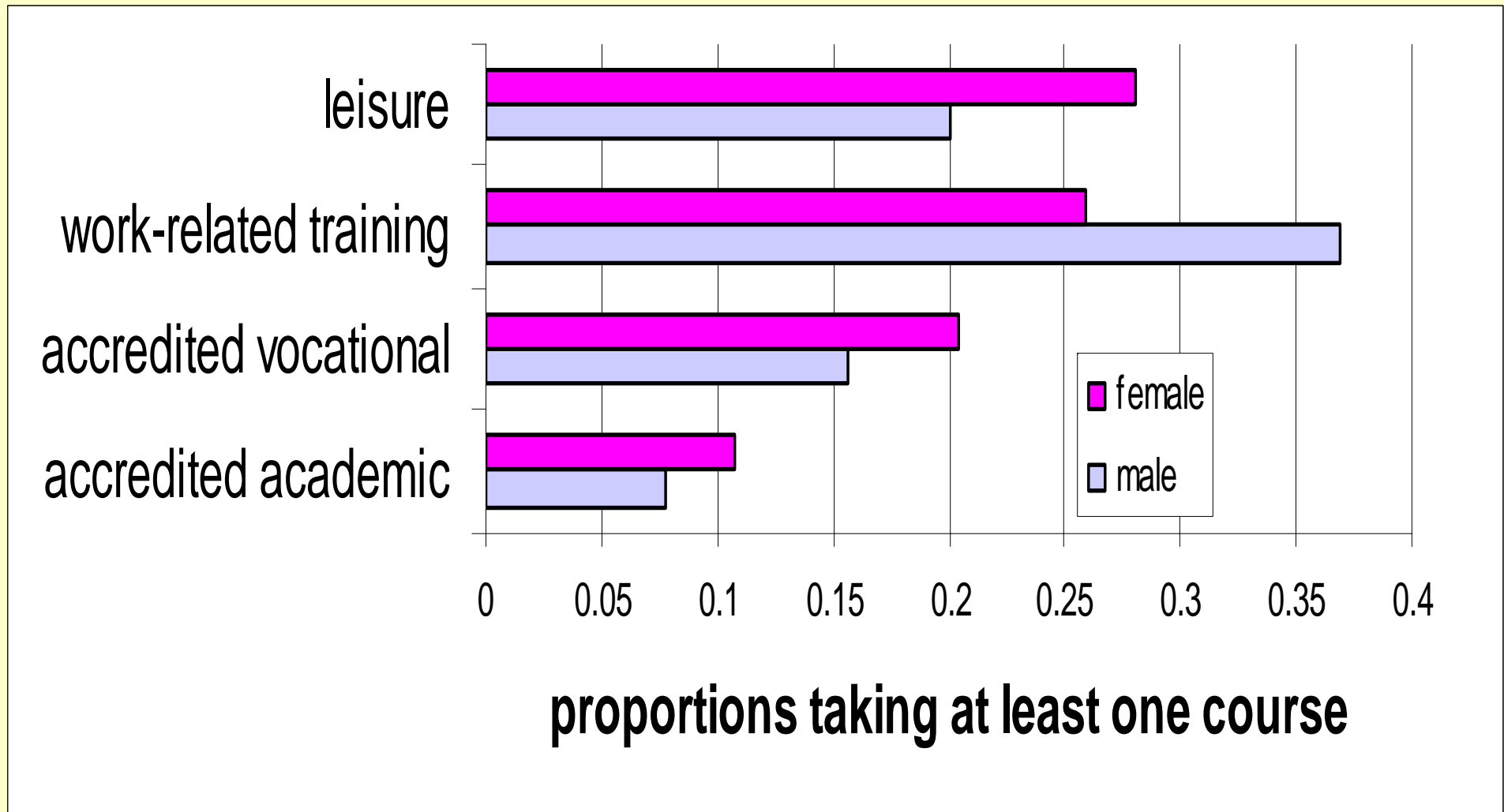
So:

- Effects of all types of courses on race tolerance;
- Effects of academic and work-based courses on life satisfaction;
- Effects of leisure courses on health behaviours and civic participation;
- Strong effects of academic courses on political attitudes.

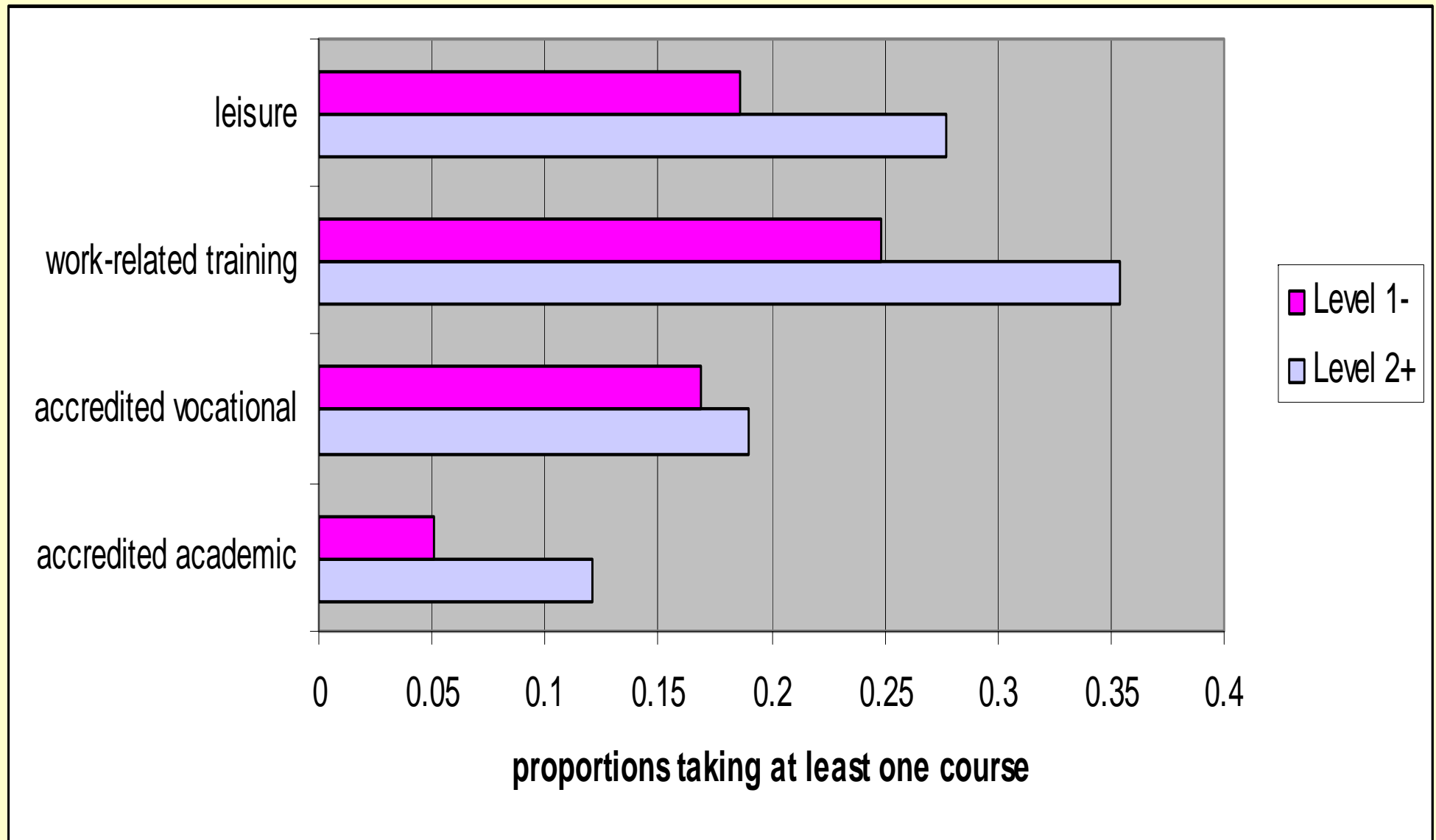
Are benefits the same for all?

Results for men/women and by prior
qualification

Participation rates by gender



Participation rates by prior quals



Difference in effect by gender: Extra benefit for women

	Gain	P-value
Smoking	0.006	0.186
Exercise	0.000	0.693
Life-sat.	-0.012	0.037
Race tol.	-0.006	0.109
Pol. cynic.	-0.000	0.931
Mem'ships	0.002	0.111

Also:

- Work-based training and academic courses lead to increases in life satisfaction for men but not for women.
- In contrast, taking vocational accredited courses is associated with reduced life satisfaction for men but not for women.

Difference in effect by prior quals: Extra benefit if below level 2

	Gain	P-value
Smoking	0.003	0.522
Exercise	0.004	0.187
Life-sat.	0.001	0.875
Race tol.	0.005	0.225
Pol. cynic.	-0.006	0.197
Mem'ships	0.001	0.467