

Early impacts of the Victorian VET reforms

Cain Polidano

cainp@unimelb.edu.au

with Felix Leung, Duncan McVicar and Rong Zhang



FACULTY OF
BUSINESS &
ECONOMICS



MELBOURNE INSTITUTE®
of Applied Economic and Social Research

Background

- National Agreement for Skills and Workforce Development (NASWD)
- State-by-state implementation
- Victorian reforms
 - Victorian Training Guarantee (VTG), July 2009-June 2012
 - Refocussing VET, July 2012-

Background

- National Agreement for Skills and Workforce Development (NASWD)
- **State-by-state implementation**
- Victorian reforms
 - Victorian Training Guarantee (VTG), July 2009-June 2012
 - Refocussing VET, July 2012-

Background

- National Agreement for Skills and Workforce Development (NASWD)
- State-by-state implementation
- Victorian reforms
 - Victorian Training Guarantee (VTG), July 2009-June 2012
 - Refocussing VET, July 2012-

Background

- What the VTG meant for Victoria:
 - Uncapping of publicly-subsidised places in VET
 - Change allocation of publicly-subsidised places from government supply-driven to student demand-driven
 - Full contestability for publicly-subsidised VET courses
 - Greater, but limited, fee competition
 - Extra entitlements for 25+

Key research questions

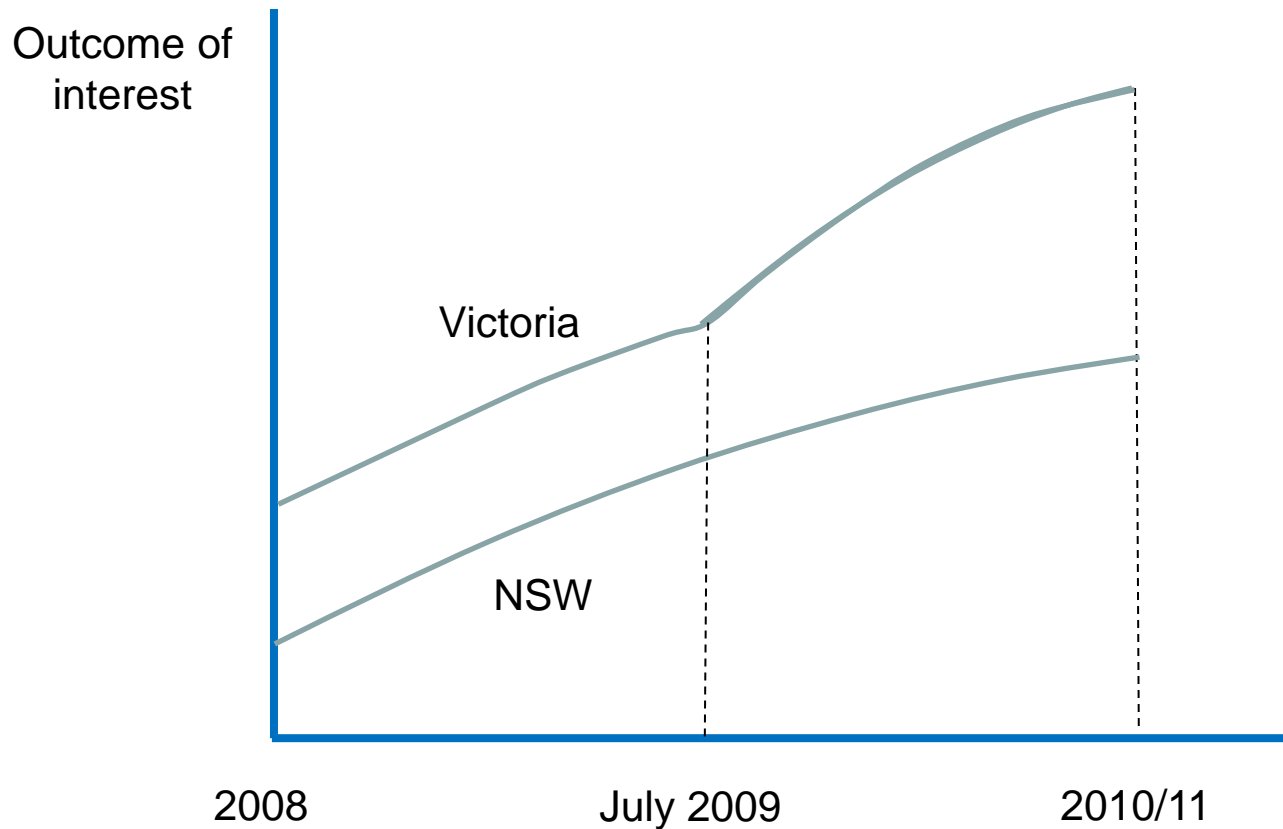
- For 15-19 year olds, what has been the impact of the VTG in 2010-2011 on:
 - VET enrolments?
 - The responsiveness of enrolments to skill demands?
 - The quality of VET training?
 - Student outcomes?

Methodology

- **Difference-in-differences**
 - Controlling for changes in other factors, such as student compositional changes, due to VTG
- **Data**
 - New enrolments from VET provider collection (VETPC) 2008-2011, tracked over time
 - Linked to skill demand information & student outcome data from the Student Outcome Surveys (SOS)

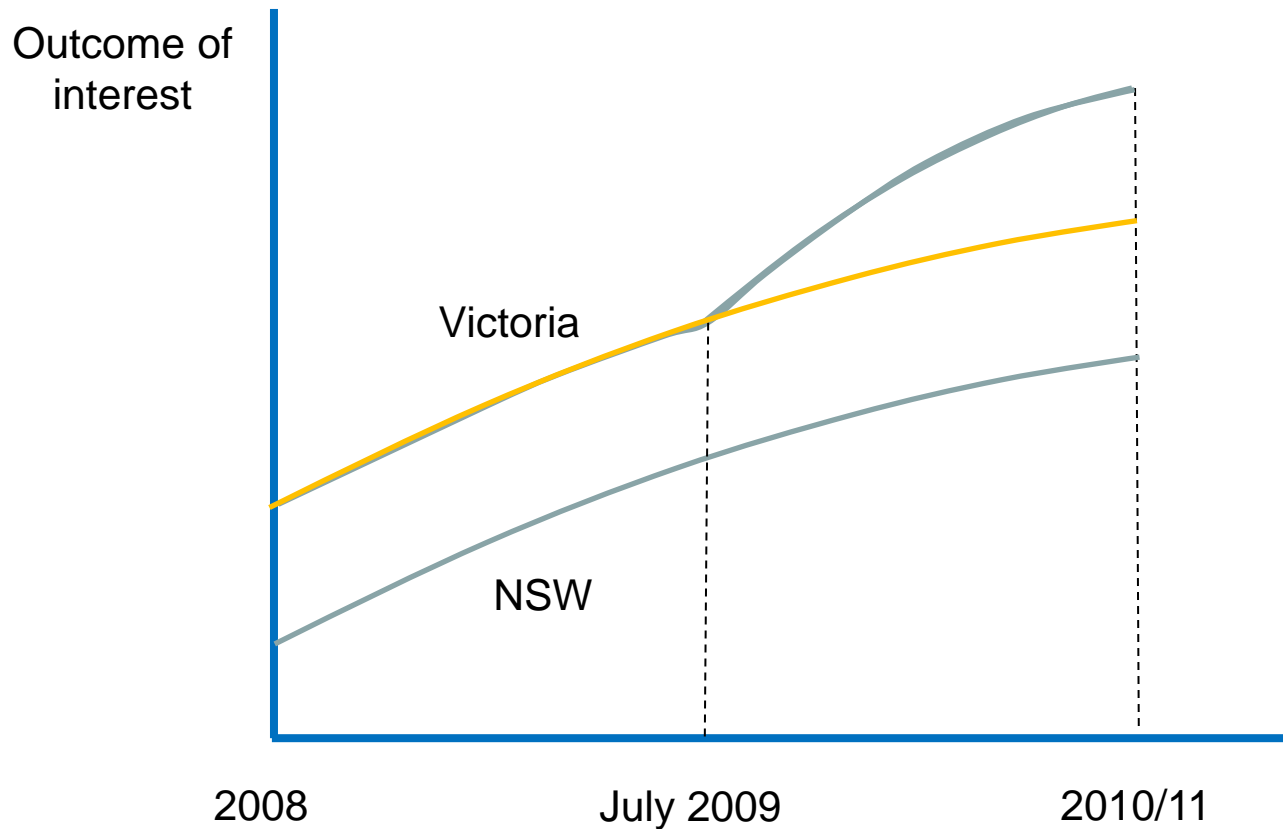
Methodology

Difference-in-differences (DiD) estimation



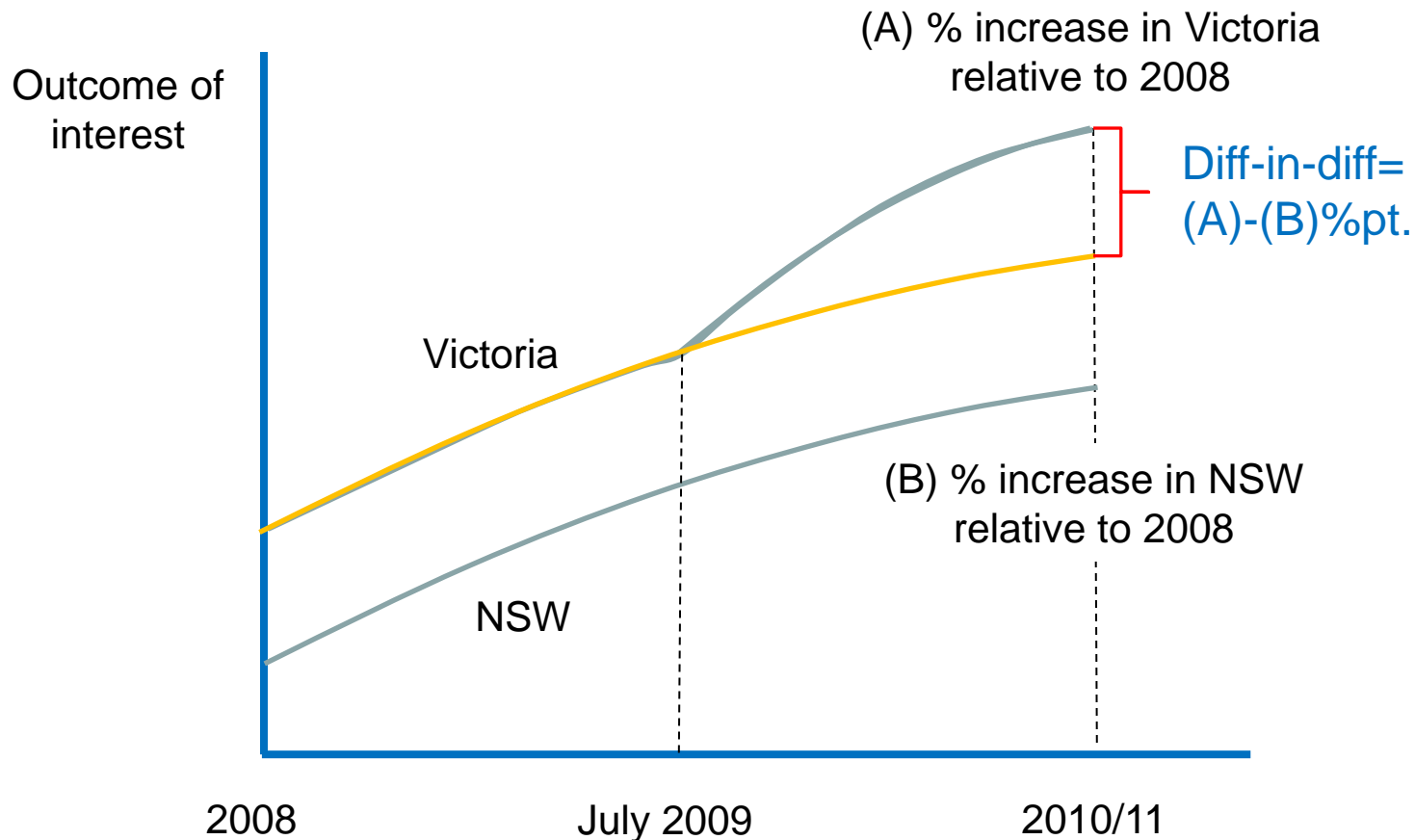
Methodology

Difference-in-differences (DiD) estimation



Methodology

Difference-in-differences (DiD) estimation



Methodology

- Difference-in-differences
 - Controlling for changes in other factors, such as student compositional changes, due to VTG
- Data
 - New enrolments from VET provider collection (VETPC) 2008-2011, tracked over time
 - Linked to skill demand information & student outcome data from the Student Outcome Surveys (SOS)

Methodology

- Difference-in-differences
 - Controlling for changes in other factors, such as student compositional changes, due to VTG
- Data
 - New enrolments from VET provider collection (VETPC) 2008-2011, tracked over time
 - Linked to skill demand information & student outcome data from the Student Outcome Surveys (SOS)

Methodology

- Outcomes of interest
 - VET enrolments, 2010-11 VETPC
 - New student enrolments in AQF level courses
 - Demand responsiveness, 2010-11 VETPC linked to:
 - Courses that are on skill shortage lists
 - Expected graduate wages from course enrolments (SOS)
 - Training quality, Jan-June 2010 VETPC enrolments
 - Course completion within 18 months of enrolment
 - Outcomes, Jan-Feb 2010 VET enrolments linked to:
 - Employment, full-time employment, on-going employment, found a higher-skilled job and enrolled in further study (SOS)

Methodology

- Outcomes of interest
 - VET enrolments, 2010-11 VETPC
 - New student enrolments in AQF level courses
 - Demand responsiveness, 2010-11 VETPC linked to:
 - Courses that are on skill shortage lists
 - Expected graduate wages from course enrolments (SOS)
 - Training quality, Jan-June 2010 VETPC enrolments
 - Course completion within 18 months of enrolment
 - Outcomes, Jan-Feb 2010 VET enrolments linked to:
 - Employment, full-time employment, on-going employment, found a higher-skilled job and enrolled in further study (SOS)

Methodology

- Outcomes of interest
 - VET enrolments, 2010-11 VETPC
 - New student enrolments in AQF level courses
 - Demand responsiveness, 2010-11 VETPC linked to:
 - Courses that are on skill shortage lists
 - Expected graduate wages from course enrolments (SOS)
 - Training quality, Jan-June 2010 VETPC enrolments
 - Course completion within 18 months of enrolment
 - Outcomes, Jan-Feb 2010 VET enrolments linked to:
 - Employment, full-time employment, on-going employment, found a higher-skilled job and enrolled in further study (SOS)

Methodology

■ Outcomes of interest

- VET enrolments, 2010-11 VETPC
 - New student enrolments in AQF level courses
- Demand responsiveness, 2010-11 VETPC linked to:
 - Courses that are on skill shortage lists
 - Expected graduate wages from course enrolments (SOS)
- Training quality, Jan-June 2010 VETPC enrolments
 - Course completion within 18 months of enrolment
- Outcomes, Jan-Feb 2010 VETPC linked to:
 - Employment, full-time employment, on-going employment, found a higher-skilled job and satisfied with training (SOS)

Results



Enrolments

Impacts on AQF enrolments of 15-19 year-olds

	Course enrolments, no.			Difference relative to 2008, %		
	2008	2010	2011	2010	2011	Average 2010-11
Victoria						
Public providers	49392	53229	49535	8	0	4
Private providers	10892	19921	31383	83	188	136
Total	60284	73150	80918	21	34	28
NSW						
Public providers	52874	55892	51928	6	-2	2
Private providers	6545	5708	5189	-13	-21	-17
Total	59419	61600	57117	4	-4	0
Difference-in-differences, %pt.						
Public providers	-	-	-	2	2	2
Private providers	-	-	-	96	209	152
Total	-	-	-	18	38	28

Enrolments

Impacts on AQF enrolments of 15-19 year-olds

	Course enrolments, no.			Difference relative to 2008, %		
	2008	2010	2011	2010	2011	Average 2010-11
Victoria						
Public providers	49392	53229	49535	8	0	4
Private providers	10892	19921	31383	83	188	136
Total	60284	73150	80918	21	34	28
NSW						
Public providers	52874	55892	51928	6	-2	2
Private providers	6545	5708	5189	-13	-21	-17
Total	59419	61600	57117	4	-4	0
Difference-in-differences, %pt.						
Public providers	-	-	-	2	2	2
Private providers	-	-	-	96	209	152
Total	-	-	-	18	38	28

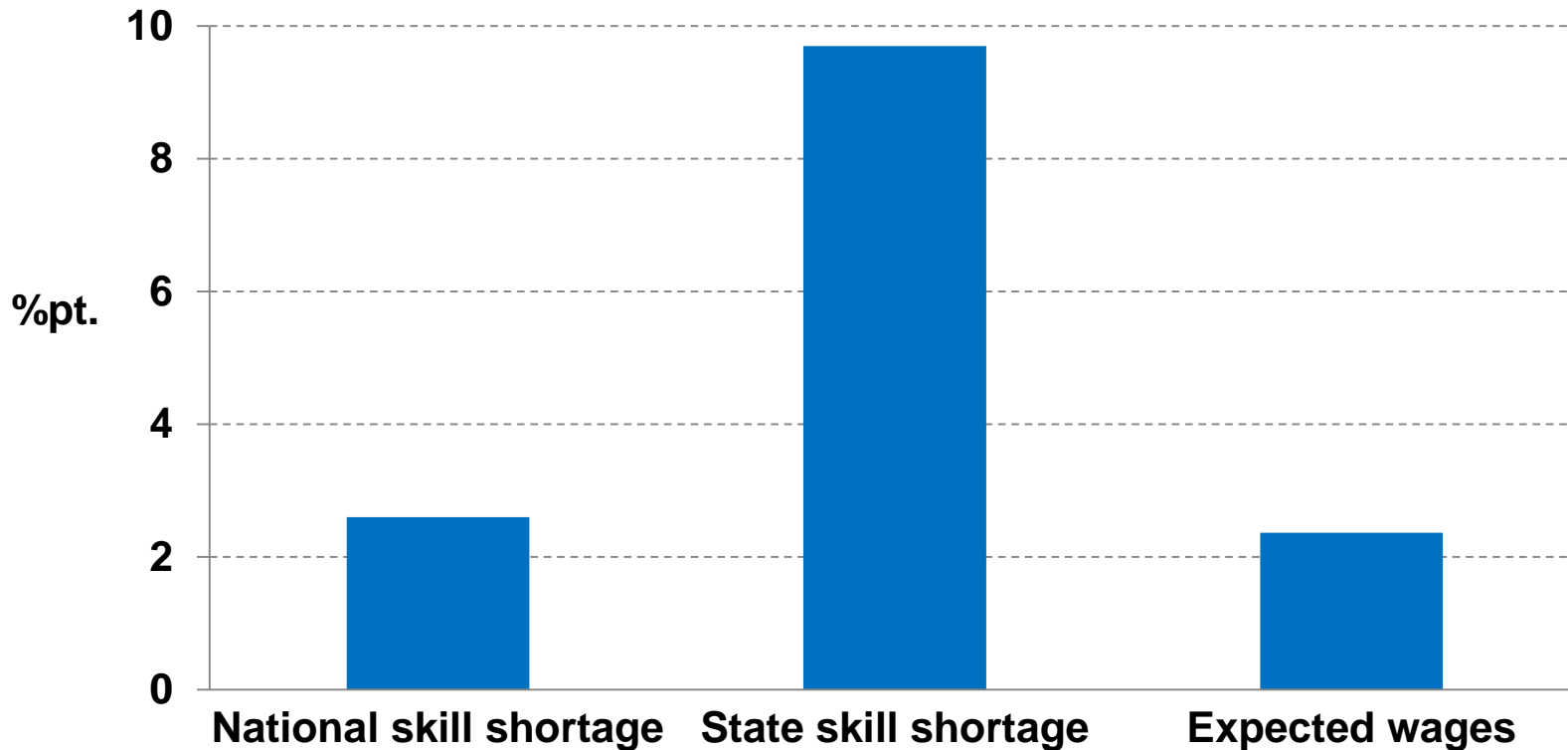
Enrolments

Impacts on AQF enrolments of 15-19 year-olds

	Course enrolments, no.			Difference relative to 2008, %		
	2008	2010	2011	2010	2011	Average 2010-11
Victoria						
Public providers	49392	53229	49535	8	0	4
Private providers	10892	19921	31383	83	188	136
Total	60284	73150	80918	21	34	28
NSW						
Public providers	52874	55892	51928	6	-2	2
Private providers	6545	5708	5189	-13	-21	-17
Total	59419	61600	57117	4	-4	0
Difference-in-differences, %pt.						
Public providers	-	-	-	2	2	2
Private providers	-	-	-	96	209	152
Total	-	-	-	18	38	27

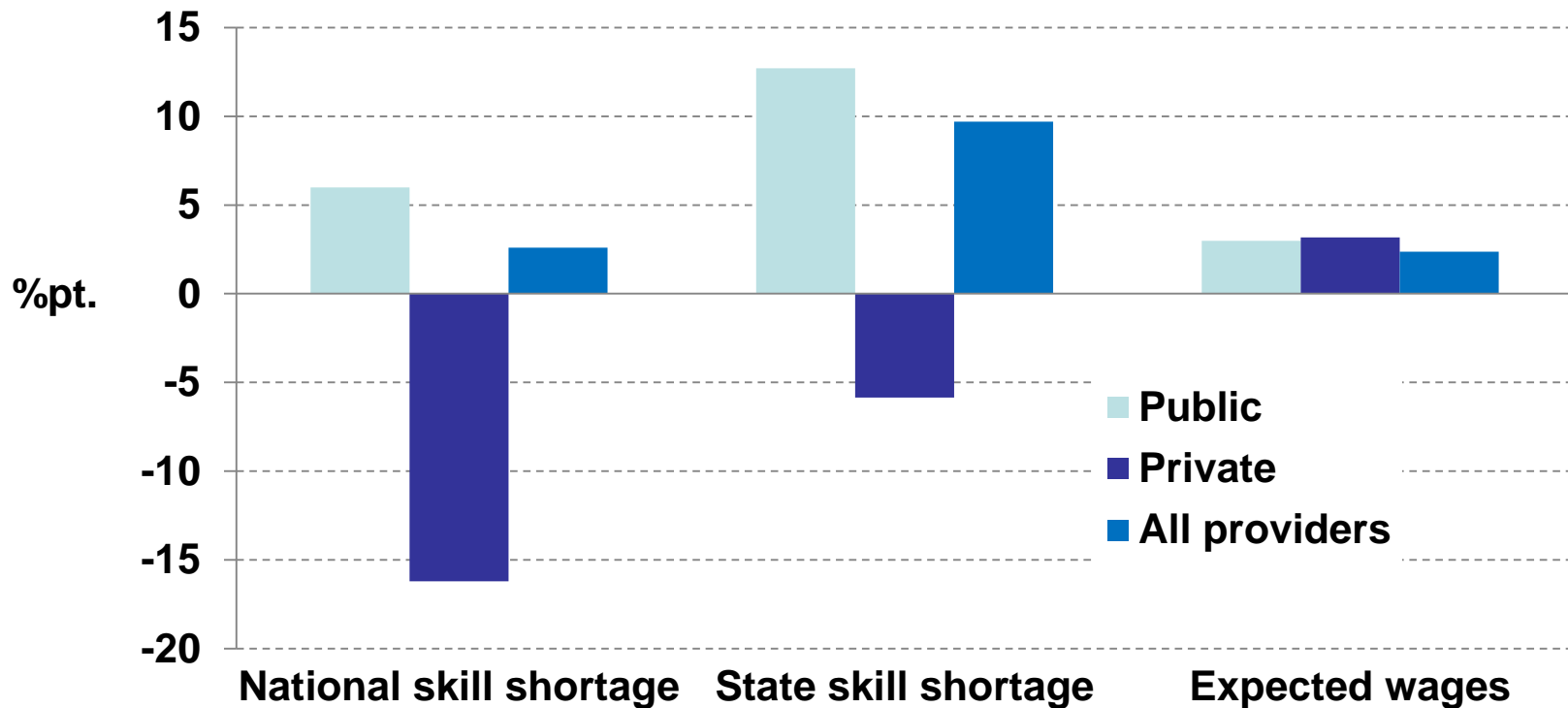
Demand responsiveness

Average annual impact on demand responsiveness
of 15-19 year old enrolments, 2010-11



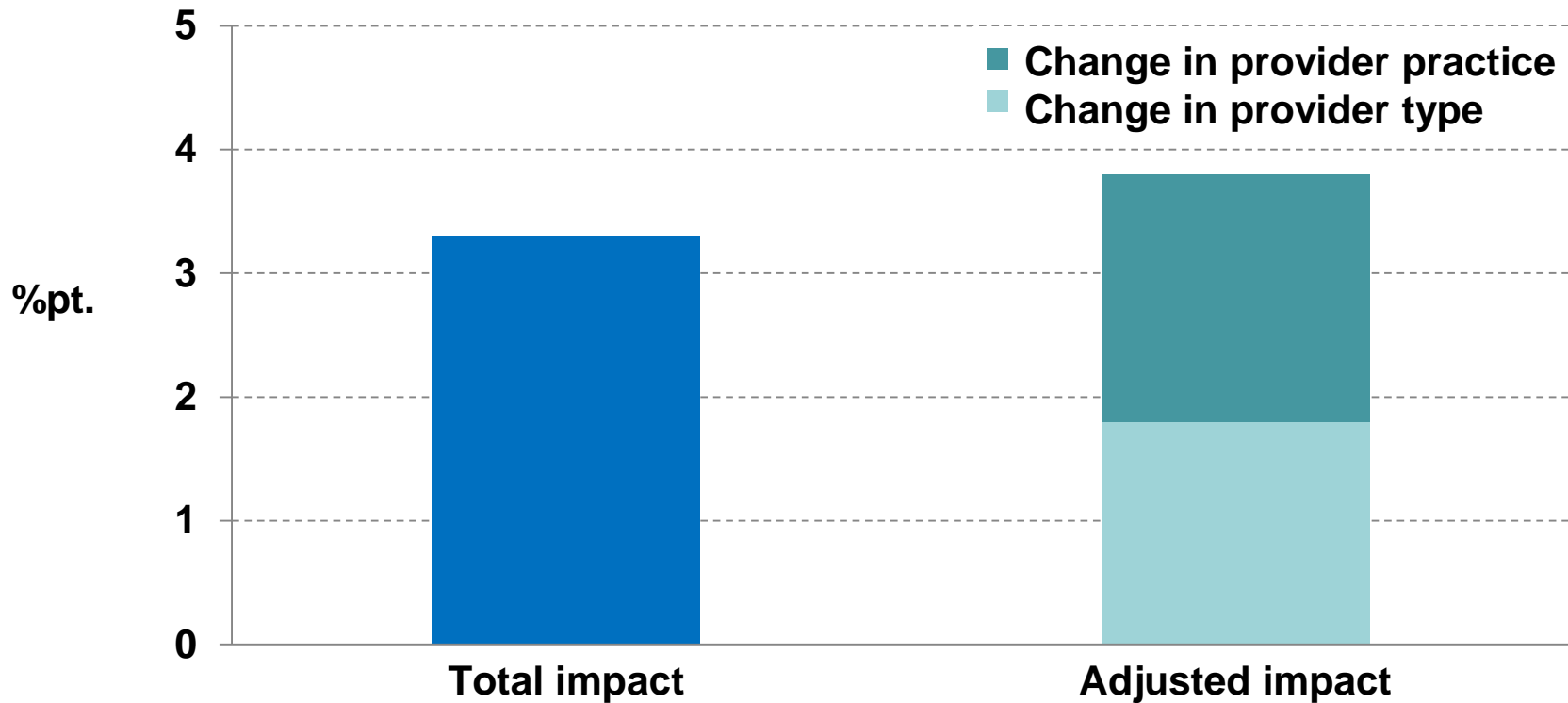
Demand responsiveness

Average annual impact on demand responsiveness of 15-19 year old enrolments by provider type, 2010-11



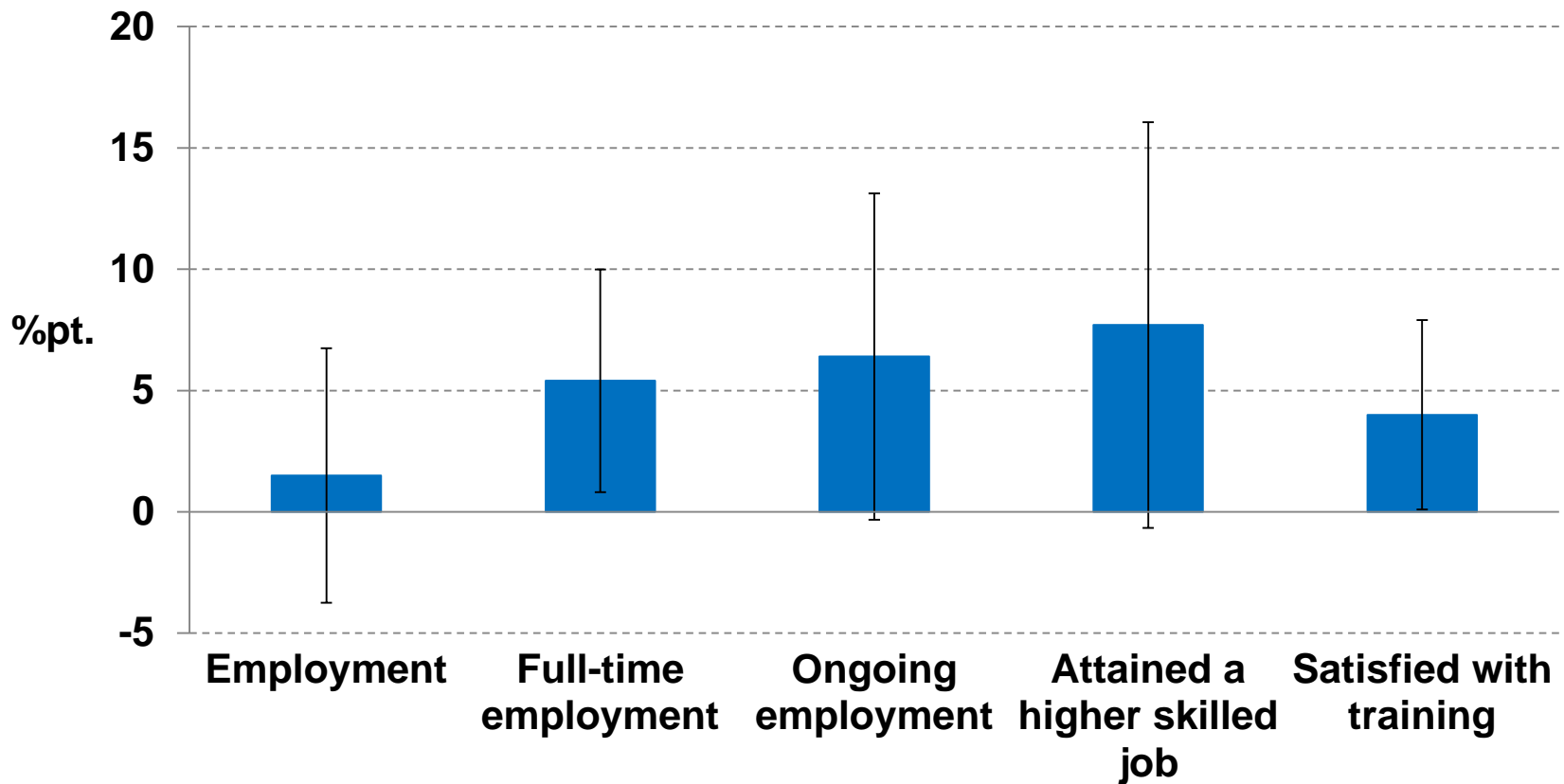
Impacts on quality

Impact on course completion within 18 months
for 15-19 year-old January-June 2010 enrolments



Student outcomes

Impact on labour market outcomes 6 months after graduation for 15-19 year-old January-February 2010 enrolments



Summing-up

- VTG had a large impact on VET enrolments
 - Driven by increased private provision
- Overall improvements in demand response
 - Different response between public and private
- Increased completion rates may indicate improved training quality
- Imprecisely estimated positive post-training outcomes

Summing-up

- VTG had a large impact on VET enrolments
 - Driven by increased private provision
- Overall improvements in demand response
 - Different response between public and private
- Increased completion rates may indicate improved training quality
- Imprecisely estimated positive post-training outcomes

Summing-up

- VTG had a large impact on VET enrolments
 - Driven by increased private provision
- Overall improvements in demand response
 - Different response between public and private
- **Increased completion rates may indicate improved training quality**
- Imprecisely estimated positive post-training outcomes

Summing-up

- VTG had a large impact on VET enrolments
 - Driven by increased private provision
- Overall improvements in demand response
 - Different response between public and private
- Increased completion rates may indicate improved training quality
- **Imprecisely estimated positive post-training outcomes**

Implications

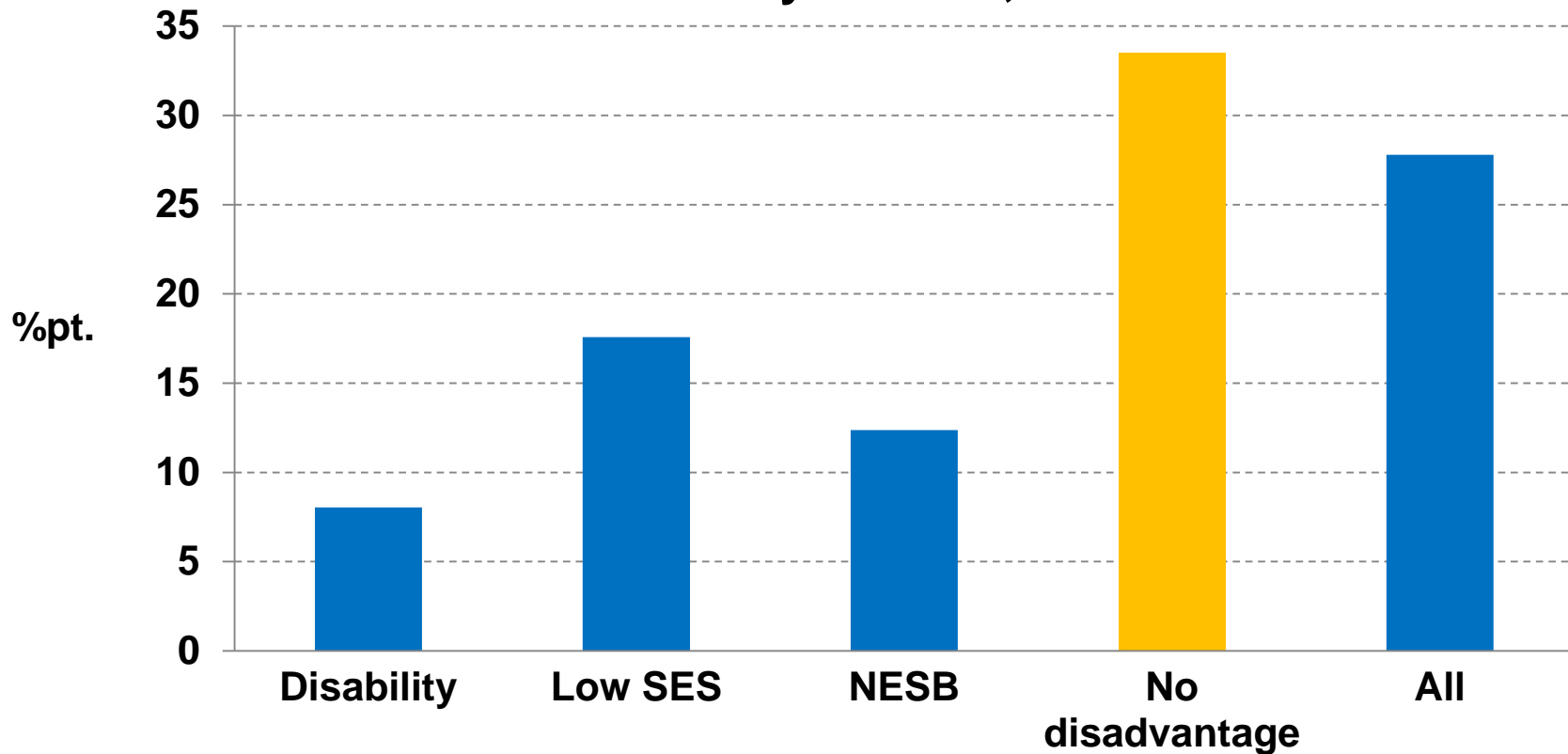
- For other states, evidence suggests demand-driven reforms lead to positive outcomes
- Students are better at responding to skill demands than governments
 - Public benefit from government measures to restrict student choice should be made clear
 - Outcomes may be further enhanced with better information on course outcomes
 - Information may need to be better targeted
 - Need to boost the Student Outcome Survey (SOS) collection

Implications

- For other states, evidence suggests demand-driven reforms lead to positive outcomes
- Students are better at responding to skill demands than governments
 - Public benefit from government measures to restrict student choice should be made clear
 - Outcomes may be further enhanced with better information on course outcomes
 - Information may need to be better targeted
 - Need to boost the Student Outcome Survey (SOS) collection

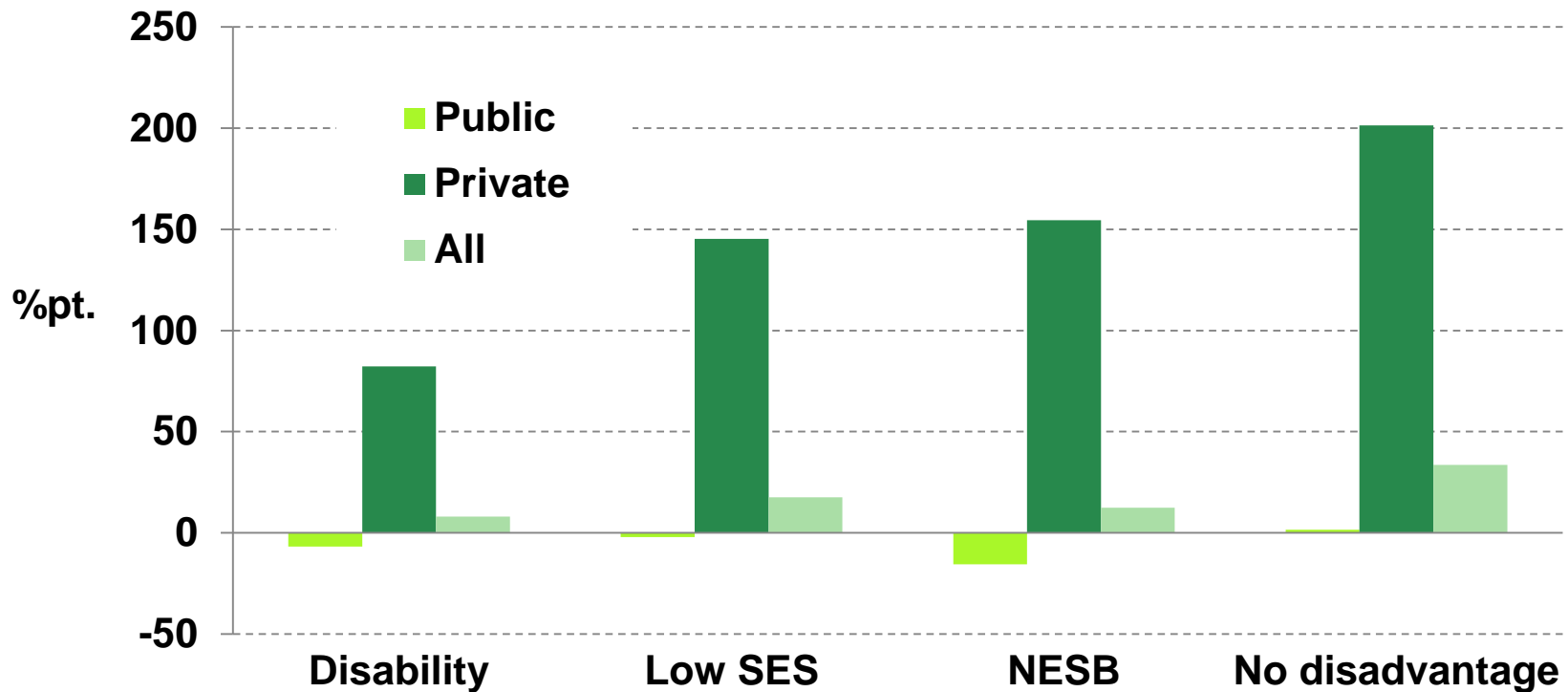
Enrolments

Average annual impacts on AQF enrolments
of 15-19 year-olds, 2010-11



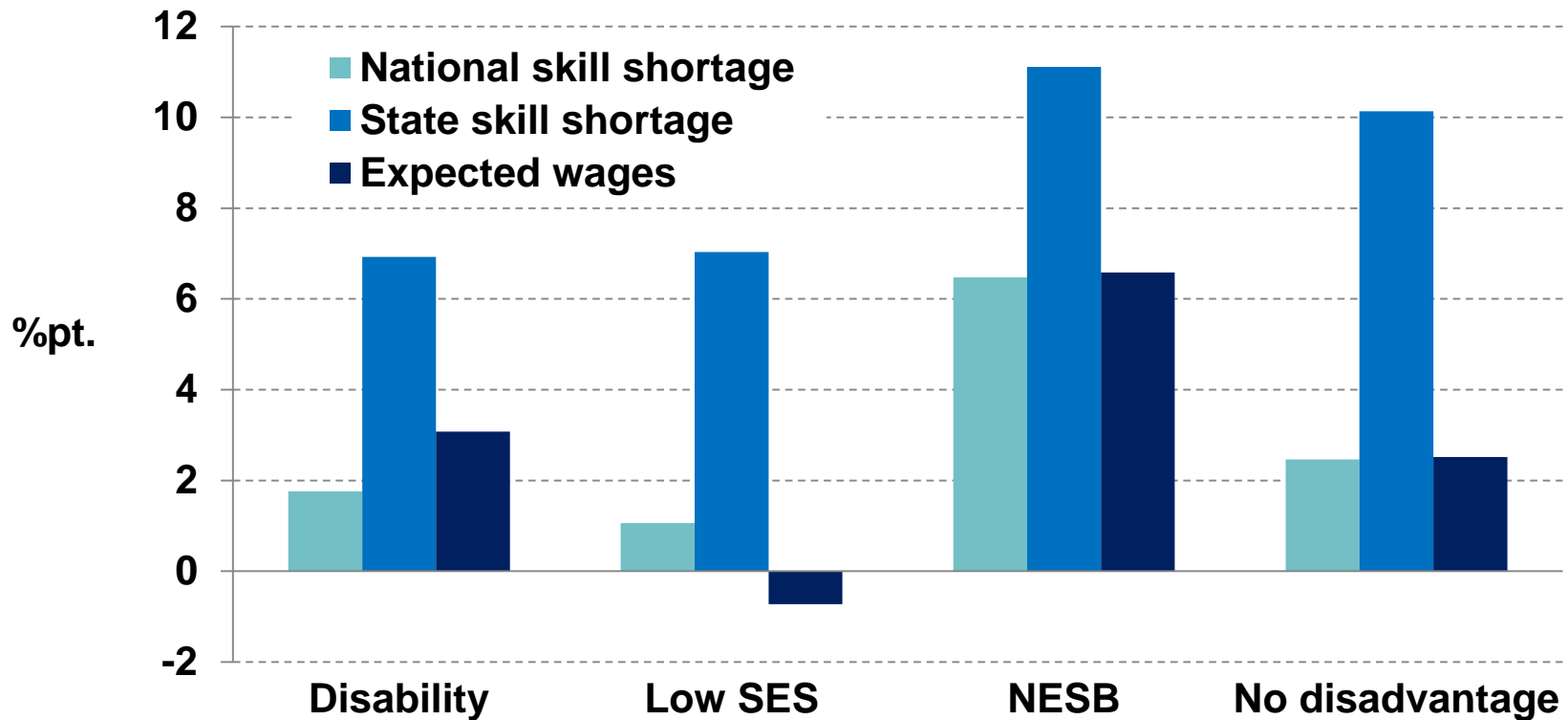
Enrolments

Average annual impacts on AQF enrolments of 15-19 year-olds by provider type, 2010-11



Demand responsiveness

Average annual impact on demand responsiveness of 15-19 year old enrolments, 2010-11



DiD Methodology

- Demand responsiveness - conditional DiD:

$$y_i = \alpha + \beta X_i + \delta Vic_i + \tau Reform_i + \gamma Vic_i * Reform_i + u_i$$

y_i =skill shortage/expected returns at time of enrolment;

X_i =personal characteristics at enrolment, such as employment status, age, previous education, gender, disadvantage;

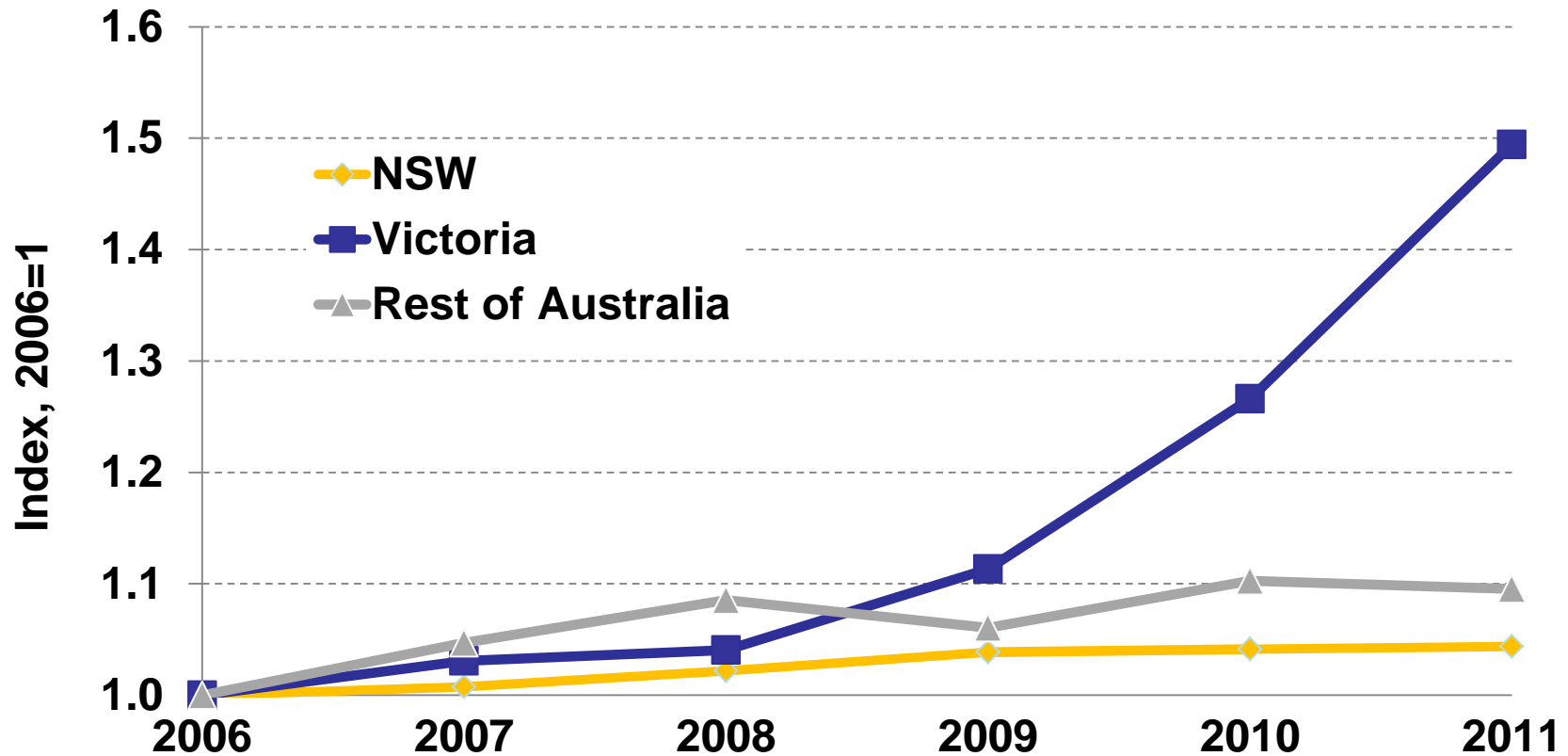
$Reform_i = 1$ if 2010/2011, 0 otherwise;

$Vic_i = 1$ if Victoria, 0 if NSW;

γ_i =Treatment effect of the reforms.

Common trends

Growth in total training hours since 2006



Source: VOCSTATS 2012

Data and key definitions

Number of jobs on skill shortage list (ANZSCO 6-digit)

Year	Number on shortage list	From Year-1	Left list in Year	Joined list in Year
2007	136	-	-	-
2009	79	71	65	8
2010	91	58	21	33
Total	306	129	86	41

DiD methodology

Enrolments in courses associated with jobs on the national skill shortage list in 2008

	Victoria	NSW
	%	%
Not on skill shortage list	61	70
On skill shortage list	28	21
General course	10	9
Total	59,419	60,284

Data and key definitions

Jobs on skill shortage lists and associated courses, 2007, 2009, 2010

Occupation on the skill shortage list (6-digit ANZSCO)

On list each year (53 occupations)

e.g. Childcare centre manager

2 years on the list (51 occupations)

e.g. Electronic equipment
trades worker

1 year on the list (39 occupations)

e.g. Boat builder and repairer

Associated courses

Children's services ISCED 5B

Electronics and communications
ISCED 3C/Electrotechnology
entertainment ISCED 3C-4B/Security
equipment ISCED 3C

Boat services ISCED 2C

The Media Headlines...

- “Beware the Rise of Worthless Training”
Adele Horin, The Age, June 16 2012
- “Frankenstein Devours its Creators”
John Mitchell, Campus Review, Sept. 3 2012
- “The Market Must be Servant Not Master...”
John Buchanan, The Australian, May 23 2012

Data and key definitions

- Estimation of expected returns
 - Data from a national survey of VET graduates 6 months after graduation ~ 20K-50K observations
 - Wage information is banded (use mid-point of bands)
 - Estimate log wage equation for full-time employed
 - Estimate separately for 2007, 2009, 2010
 - Rich set of controls, including employment and education history
 - Returns (wage coefficients) are estimated for 230 ISCED field of education (4-digit) & course level combinations

Data and key definitions

Estimated expected returns in 2007 for graduates in 2006

Percentile	Expected returns ^a	ISCED4-digit FOE	ISCED level
10th	-0.19	Communication and media	2C
20th	-0.15	Automotive engineering and technology	2C
30th	-0.13	Horticulture & viticulture	3C
40th	-0.12	Manufacturing engineering and technology	5B
50th	-0.10	Sports and recreation	2C
60th	-0.08	Sports and recreation	3C
70th	-0.06	Banking, finance and related	4B
80th	-0.03	Justice and law enforcement	3C
90th	0.05	Civil engineering	2C

^aRelative to Building ISCED 3C. Source: Student outcome survey 2007

Background

- Learning for Jobs 2008 recommendations:
 - Move away from central planning (no. 4)

*“Skills forecasts are often unreliable and should not be the foundation of central planning. In future, there should be **more emphasis** on a system driven by student demand **balanced** by employer willingness to offer workplace training.”*
 - Introduce contestability (no. 3)

“Students entitled to funding should be able to choose VET providers. Open competition should be accompanied by support measures designed to ensure that a good range of provision is accessible to all, including disadvantaged groups...”
 - Improve student information (no. 3)

“[Ensure] that better information is available to potential students on the quality of providers.”

Background

- Learning for Jobs 2008 recommendations:

- Move away from central planning (no. 4)

*“Skills forecasts are often unreliable and should not be the foundation of central planning. In future, there should be **more emphasis** on a system driven by student demand **balanced** by employer willingness to offer workplace training.”*

- Introduce contestability (no. 3)

“Students entitled to funding should be able to choose VET providers. Open competition should be accompanied by support measures designed to ensure that a good range of provision is accessible to all, including disadvantaged groups...”

- Improve student information (no. 3)

“[Ensure] that better information is available to potential students on the quality of providers.”

Background

- Learning for Jobs 2008 recommendations:

- Move away from central planning (no. 4)

*“Skills forecasts are often unreliable and should not be the foundation of central planning. In future, there should be **more emphasis** on a system driven by student demand **balanced** by employer willingness to offer workplace training.”*

- Introduce contestability (no. 3)

“Students entitled to funding should be able to choose VET providers. Open competition should be accompanied by support measures designed to ensure that a good range of provision is accessible to all, including disadvantaged groups...”

- Improve student information (no. 3)

“[Ensure] that better information is available to potential students on the quality of providers.”