Is VET the panacea we think it is?

An overview of 3+ years of work

Hielke Buddelmeyer & Cain Polidano The University of Melbourne

NCVER Research Forum Realising our potential: widening participation through education and training

> 3 April 2014 Melbourne Convention and Exhibition Centre

> > www.melbourneinstitute.com

 To give an overview of 3 years worth of work on VET under the broad umbrella of promoting social inclusion for disadvantaged groups through education and training

- To give an overview of 3 years worth of work on VET under the broad umbrella of promoting social inclusion for disadvantaged groups through education and training
- Present key findings and messages from 7 distinct research projects, with just enough information to encourage further reading

- To give an overview of 3 years worth of work on VET under the broad umbrella of promoting social inclusion for disadvantaged groups through education and training
- Present key findings and messages from 7 distinct research projects, with just enough information to encourage further reading
- Big picture sketch of what we've learned and implications for policy

- To give an overview of 3 years worth of work on VET under the broad umbrella of promoting social inclusion for disadvantaged groups through education and training
- Present key findings and messages from 7 distinct research projects, with just enough information to encourage further reading
- Big picture sketch of what we've learned and implications for policy
- Q&A style debate
 - A companion synthesis report will be available soon structuring the same research output into themes

Preamble

 'disadvantage' is not a personal attribute, but an impersonal statistical marker based on historical outcomes for the group to which the individual belongs, e.g.

Preamble

- 'disadvantage' is not a personal attribute, but an impersonal statistical marker based on historical outcomes for the group to which the individual belongs, e.g.
 - individuals in low socio-economic status households
 - being of indigenous or Torres Strait islander descent
 - having poor English skills
 - having low levels of formal education
 - being older workers (re-)entering the workforce
 - having a disability
 - Etc.

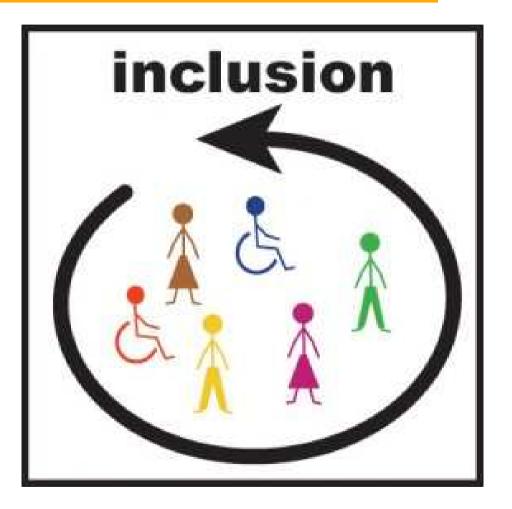
- Educating oneself out of social exclusion
- Studying beyond age 25: who does it and what do they gain?
- Training and its impact on the casual employment experience

- Educating oneself out of social exclusion
- Studying beyond age 25: who does it and what do they gain?
- Training and its impact on the casual employment experience
- Is there a VET completion gap for students from disadvantaged groups and, if so, why?

- Educating oneself out of social exclusion
- Studying beyond age 25: who does it and what do they gain?
- Training and its impact on the casual employment experience
- Is there a VET completion gap for students from disadvantaged groups and, if so, why?
- Does scored VET in schools help or hinder access to higher education in Victoria?

- Educating oneself out of social exclusion
- Studying beyond age 25: who does it and what do they gain?
- Training and its impact on the casual employment experience
- Is there a VET completion gap for students from disadvantaged groups and, if so, why?
- Does scored VET in schools help or hinder access to higher education in Victoria?
- Early impacts of the Victorian Training Guarantee on VET enrolments and graduate outcomes

- Educating oneself out of social exclusion
- Studying beyond age 25: who does it and what do they gain?
- Training and its impact on the casual employment experience
- Is there a VET completion gap for students from disadvantaged groups and, if so, why?
- Does scored VET in schools help or hinder access to higher education in Victoria?
- Early impacts of the Victorian Training Guarantee on VET enrolments and graduate outcomes
- Outcomes of Learn or Earn



www.melbourneinstitute.com

How do you measure social exclusion?

- How do you measure social exclusion?
 - Use the BSL-MI Social Exclusion Monitor

- How do you measure social exclusion?
 - Use the BSL-MI Social Exclusion Monitor
 - Multi-dimensional with 7 domains
 - education; health; income; employment; neighbourhood; social; safety

- How do you measure social exclusion?
 - Use the BSL-MI Social Exclusion Monitor
 - Multi-dimensional with 7 domains
 - education; health; income; employment; neighbourhood; social; safety
 - Wizardry gives us a single index capturing depth and incidence of multidimensional social inclusion (cf. income poverty index)

- How do you measure social exclusion?
 - Use the BSL-MI Social Exclusion Monitor
 - Multi-dimensional with 7 domains
 - education; health; income; employment; neighbourhood; social; safety
 - Wizardry gives us a single index capturing depth and incidence of multidimensional social inclusion (cf. income poverty index)
 - Can plot this over time, and for subgroups

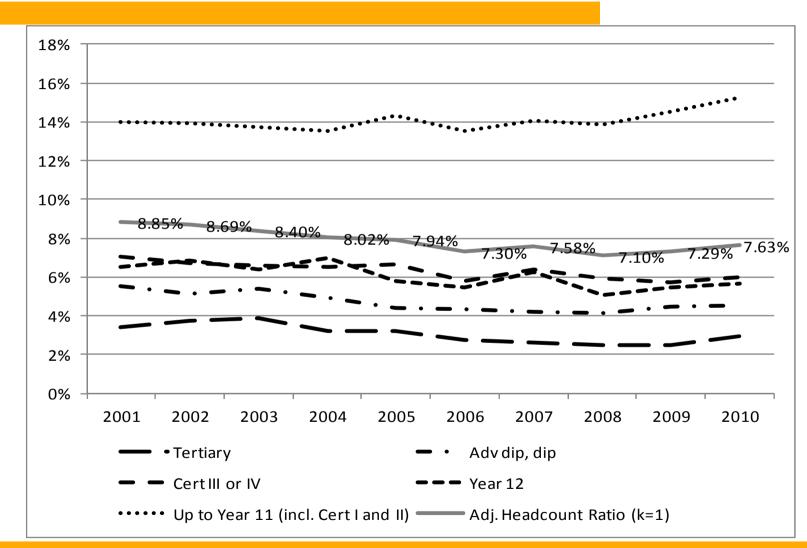
- How do you measure social exclusion?
 - Use the BSL-MI Social Exclusion Monitor
 - Multi-dimensional with 7 domains
 - education; health; income; employment; neighbourhood; social; safety
 - Wizardry gives us a single index capturing depth and incidence of multidimensional social inclusion (cf. income poverty index)
 - Can plot this over time, and for subgroups
 - Can break it down to a proportional contribution by each of the 7 domains (summing to 100%)
 - Income alone ~ 30%.

• You can manipulate the level of exclusion, but it has no impact on the story

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else

A nation divided



www.melbourneinstitute.com

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else
- Aha! That is because education is one of the domains! Wrong!

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else
- Aha! That is because education is one of the domains! Wrong!
 - Implementing the COAG goal of reducing by half the proportion of people aged 20-64 without at least certificate III only moderately reduces the social exclusion rate

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else
- Aha! That is because education is one of the domains! Wrong!
 - Implementing the COAG goal of reducing by half the proportion of people aged 20-64 without at least certificate III only moderately reduces the social exclusion rate
 -but also assigning the average characteristics of existing Year 12 / certificate III holders reduces social exclusion rates by as much as 30%

- You can manipulate the level of exclusion, but it has no impact on the story
- Decline in exclusion levels since 2008, then a slight increase (GFC)
- When it comes to social exclusion, Australia is a divided nation:
 - Certificate III or Year 12 and anything overversus everyone else
- Aha! That is because education is one of the domains! Wrong!
 - Implementing the COAG goal of reducing by half the proportion of people aged 20-64 without at least certificate III only moderately reduces the social exclusion rate
 -but also assigning the average characteristics of existing Year 12 / certificate III holders reduces social exclusion rates by as much as 30%
- Moral: Education as a pathway to education+. Be prepared for a long road



www.melbourneinstitute.com

• Groups of interest:

www.melbourneinstitute.com

- Groups of interest:
 - students with a disability
 - indigenous students
 - students living in low SES areas, and
 - students with poor English language skills

- Groups of interest:
 - students with a disability
 - indigenous students
 - students living in low SES areas, and
 - students with poor English language skills
- Compared with the general student population:
 - Is there a completion gap?

- Groups of interest:
 - students with a disability
 - indigenous students
 - students living in low SES areas, and
 - students with poor English language skills
- Compared with the general student population:
 - Is there a completion gap?
 - Is there an employment gap post-course?

- Groups of interest:
 - students with a disability
 - indigenous students
 - students living in low SES areas, and
 - students with poor English language skills
- Compared with the general student population:
 - Is there a completion gap?
 - Is there an employment gap post-course?
 - Is the employment gap the result of the completion gap?

- Groups of interest:
 - students with a disability
 - indigenous students
 - students living in low SES areas, and
 - students with poor English language skills
- Compared with the general student population:
 - Is there a completion gap?
 - Yes
 - Is there an employment gap post-course
 - Yes
 - Is the employment gap the result of the completion gap?
 - On average, no; Moving from unemployment to employment post-course is not affected by completion, or any other observables

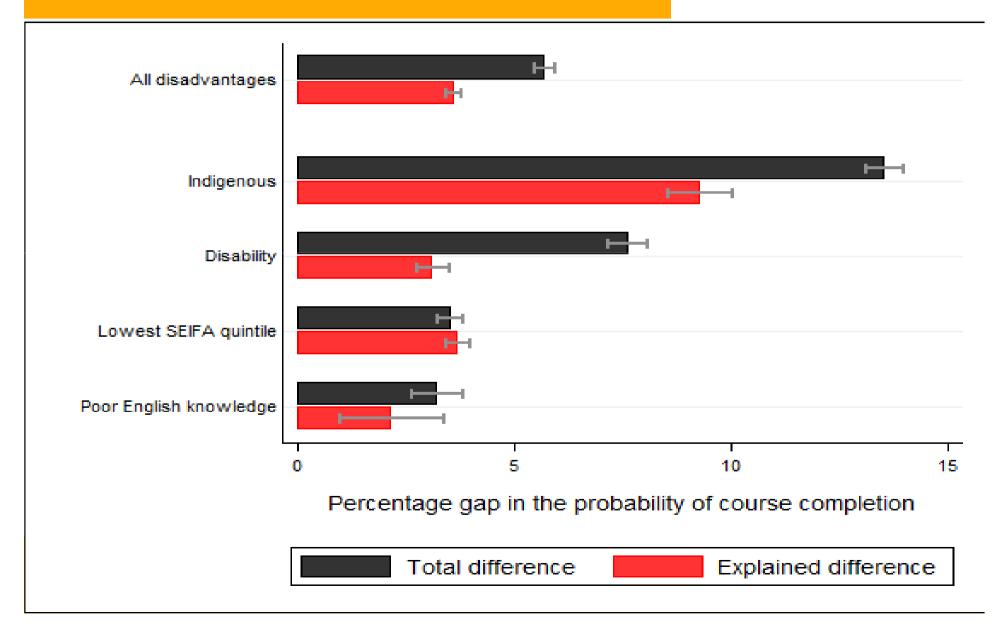
 Gaps are analysed in the same way as studies into the gender wage gap

- Gaps are analysed in the same way as studies into the gender wage gap
- Based on regression for two groups separately

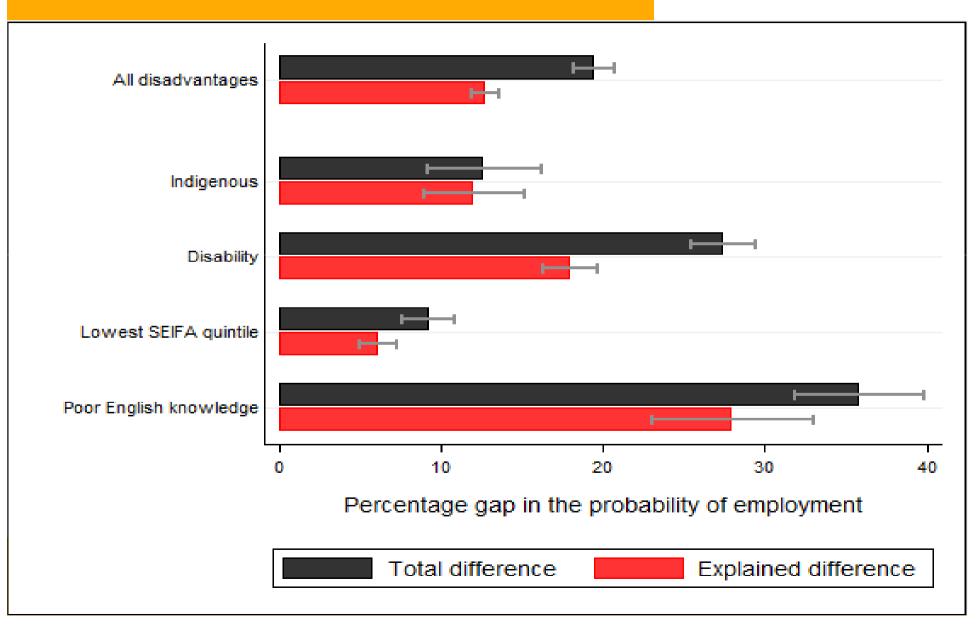
- Gaps are analysed in the same way as studies into the gender wage gap
- Based on regression for two groups separately
- The explained part is the share of the gap we eliminate if disadvantaged students had on average the same observed characteristics as do the non-disadvantaged students

- Gaps are analysed in the same way as studies into the gender wage gap
- Based on regression for two groups separately
- The explained part is the share of the gap we eliminate if disadvantaged students had on average the same observed characteristics as do the non-disadvantaged students
 - What remains of the gap is referred to as the unexplained gap, the gap due to so-called unobservables, or sometimes plainly stated to be discrimination

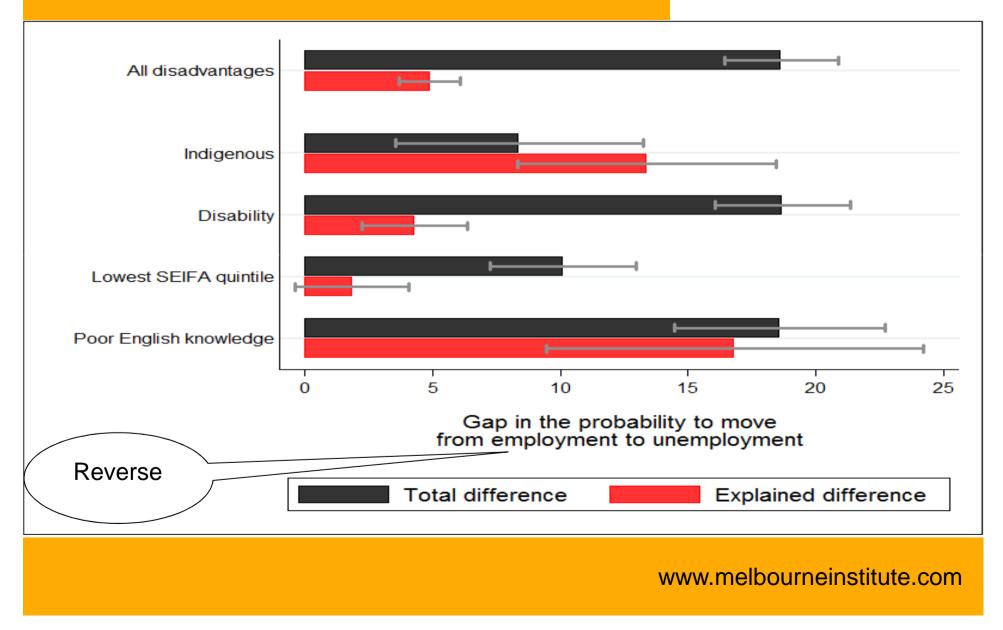
How big is the gap? Course Completion



How big is the gap? Employment post-course



How big is the gap? Escaping unemployment



Is VET the panacea? A tale of two policies

Cain Polidano Melbourne Institute of Applied Economic and Social Policy cainp@unimelb.edu.au

3 April 2014



FACULTY OF BUSINESS & ECONOMICS



- Three policies that (among other things) aimed to encourage engagement in VET
 - 1. Victorian Training Guarantee (VTG)
 - 2. Scored VET-in-school subjects
 - 3. Learn or Earn
- At various stages of publication
 - Taster of the approach, findings and implications

- Three policies that (among other things) aimed to encourage engagement in VET
 - 1. Victorian Training Guarantee (VTG)
 - 2. Scored VET-in-school subjects
 - 3. Learn or Earn
- At various stages of publication
 - Taster of the approach, findings and implications

Victorian Training Guarantee



Victorian Training Guarantee (VTG)

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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+

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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+

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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+

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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+

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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+

- July 2009-June 2012 (excluding 'Refocussing VET')
- 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?

What the media said...

Collision Course of Learning

THE AUSTRALIAN (16/5/2012)

"Victorian taxpayers...got an explosion in dubious courses from private colleges as the reputation of the education and training sector sped south... What were they learning? Skills the economy needed? Not necessarily. Those cheap to teach? Definitely. Enrolments in real estate, warehousing, recreation and finance more than doubled in just three years. Despite the resources boom, mining was the only area where enrolments declined."

'Market design' fails to supply the skills

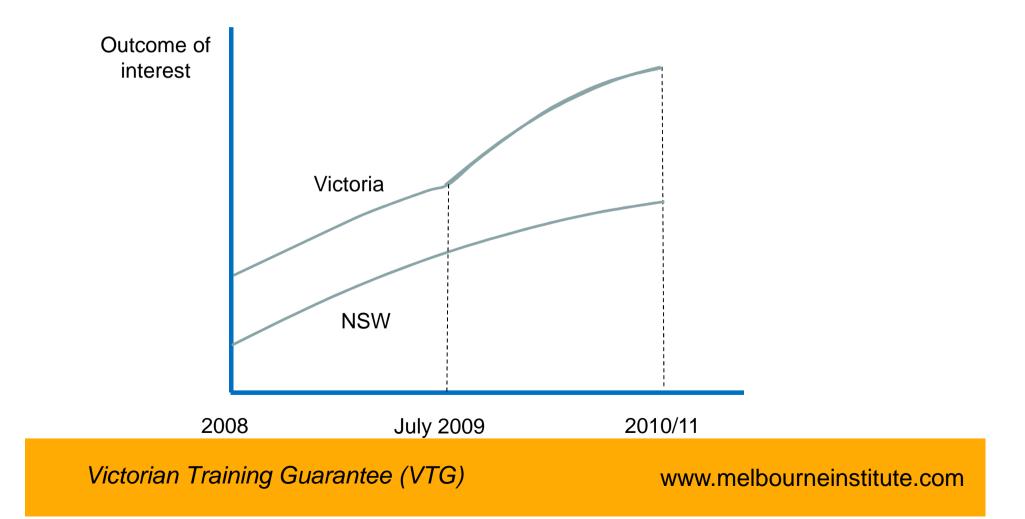
THE AUSTRALIAN FINANCIAL REVIEW (3/7/2012)

"...the Victorian experience of meddling in the education market led to a budget blowout and oversupply of workers with skills, such as personal fitness trainers, that do little to ease the skill bottlenecks holding back the economy's mining boom."

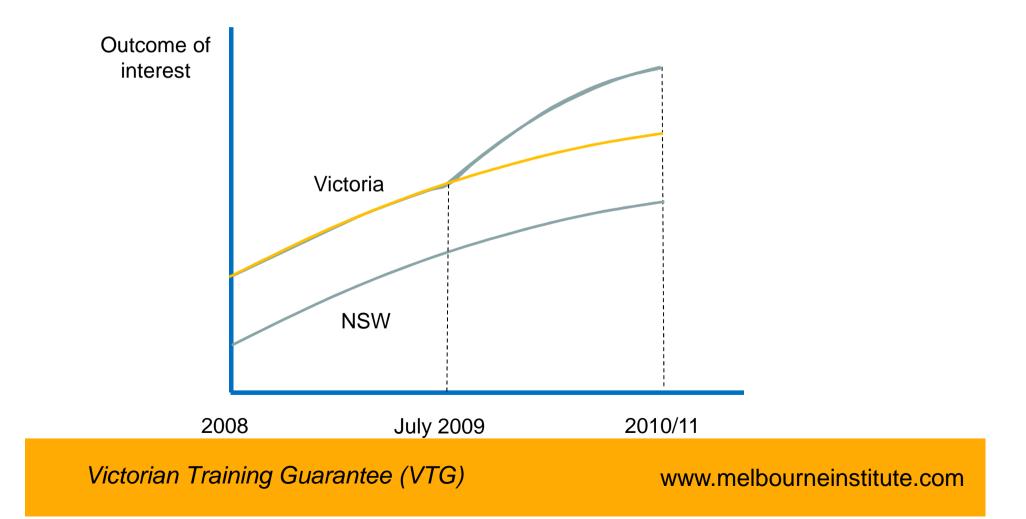
Difference-in-differences

- New enrolments from VET provider collection (VETPC) 2008-2011, tracked over time
 - Individual course choice linked skill demand information:
 - skill shortage (DEEWR),
 - previous year's graduate wages (Student Outcome Survey (SOS)
 - Student completion information from VETPC
 - Student outcome data from SOS

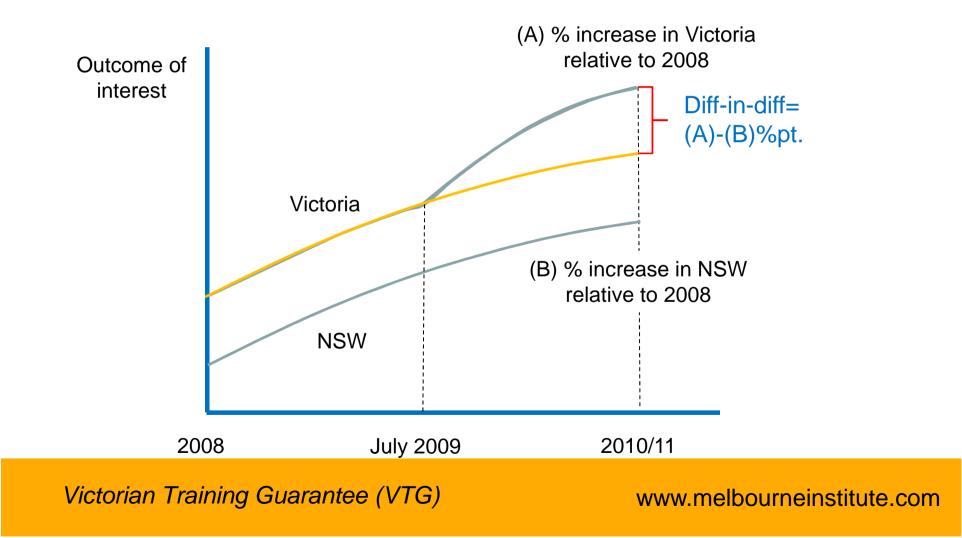
Difference-in-differences (DiD) estimation



Difference-in-differences (DiD) estimation

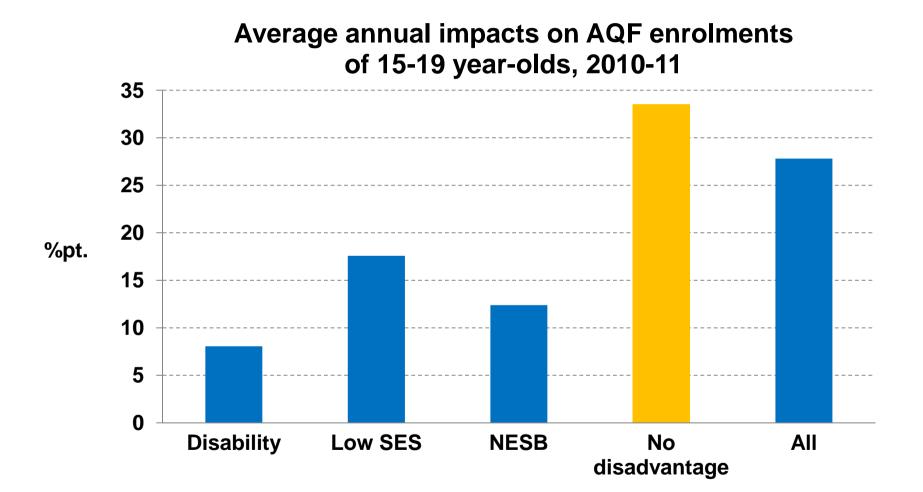


Difference-in-differences (DiD) estimation



- Difference-in-differences
- New enrolments from VET provider collection (VETPC) 2008-2011, tracked over time
 - Individual course choice linked to skill demand information:
 - skill shortage (DEEWR)
 - previous year's graduate wages (Student Outcome Survey (SOS)
 - Student completion information from VETPC
 - Student outcome data from SOS

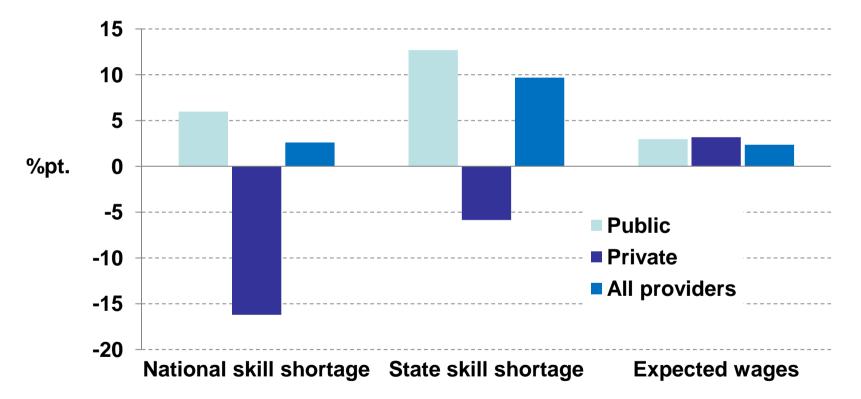
Results - enrolments



Victorian Training Guarantee (VTG)

Results – demand responsiveness

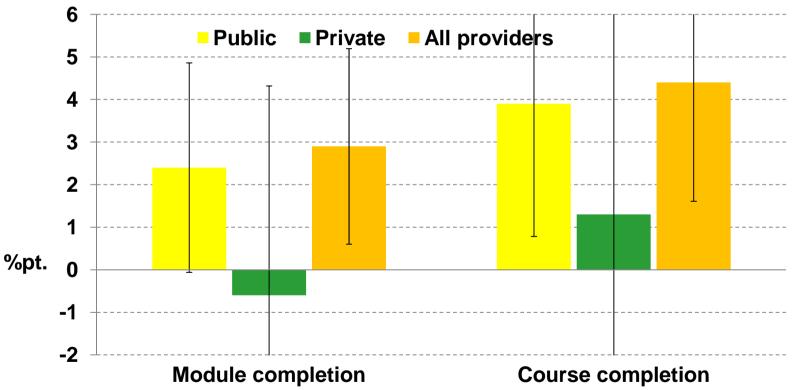
Average annual impact on demand responsiveness of 15-19 year old enrolments by provider type, 2010-11



Victorian Training Guarantee (VTG)

Results – quality

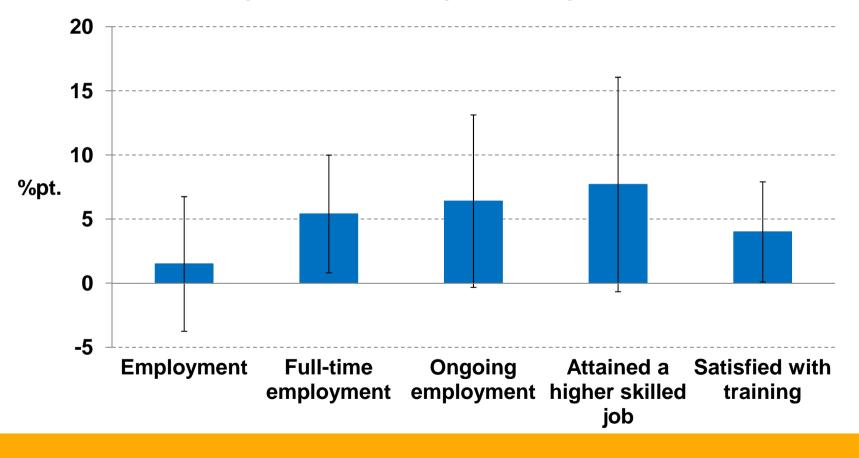
Average annual impact on course & module completion of 15-19 year old enrolments by provider type, 2010-11



Victorian Training Guarantee (VTG)

Results – student outcomes

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



Victorian Training Guarantee (VTG)

- Increasing access is not the panacea for improving participation for the disadvantaged
- Given greater opportunities, on average, young people make good course choices
 - VTG was not necessarily an efficient use of funding, but should access be rationed according to 'skill need'?
 - Can we improve choice with better information?
- Increased contestability of funding appears to have increased training quality
- Imprecise, but positive SR post-training outcomes

- Increasing access is not the panacea for improving participation for the disadvantaged
- Given greater opportunities, on average, young people make good course choices
 - VTG was not necessarily an efficient use of funding, but should access be rationed according to 'skill need'?
 - Can we improve choice with better information?
- Increased contestability of funding appears to have increased training quality
- Imprecise, but positive SR post-training outcomes

- Increasing access is not the panacea for improving participation for the disadvantaged
- Given greater opportunities, on average, young people make good course choices
 - VTG was not necessarily an efficient use of funding, but should access be rationed according to 'skill need'?
 - Can we improve choice with better information?
- Increased contestability of funding appears to have increased training quality
- Imprecise, but positive SR post-training outcomes

- Increasing access is not the panacea for improving participation for the disadvantaged
- Given greater opportunities, on average, young people make good course choices
 - VTG was not necessarily an efficient use of funding, but should access be rationed according to 'skill need'?
 - Can we improve choice with better information?
- Increased contestability of funding appears to have increased training quality
- Imprecise, but positive SR post-training outcomes

Scored VET-in-schools



Scored VET-in-schools

- VET-in-school subjects are often stigmatised
- Scored VET subjects count towards ATAR score
- Potentially allow flexibility to pursue vocational paths without compromising access to university
- The model varies by state
 - we focus on Victorian model, 'VCE VET'
- Key research question
 - What is the relationship between taking VCE VET subjects and university access

- VET-in-school subjects are often stigmatised
- Scored VET subjects count towards ATAR score
- Potentially allow flexibility to pursue vocational paths without compromising access to university
- The model varies by state
 - we focus on Victorian model, 'VCE VET'
- Key research question
 - What is the relationship between taking VCE VET subjects and university access

- VET-in-school subjects are often stigmatised
- Scored VET subjects count towards ATAR score
- Potentially allow flexibility to pursue vocational paths without compromising access to university
- The model varies by state
 - we focus on Victorian model, 'VCE VET'
- Key research question
 - What is the relationship between taking VCE VET subjects and university access

Introduction

- VET-in-school subjects are often stigmatised
- Scored VET subjects count towards ATAR score
- Potentially allow flexibility to pursue vocational paths without compromising access to university
- The model varies by state
 - we focus on Victorian model, 'VCE VET'
- Key research question
 - What is the relationship between taking VCE VET subjects and university access

Introduction

- VET-in-school subjects are often stigmatised
- Scored VET subjects count towards ATAR score
- Potentially allow flexibility to pursue vocational paths without compromising access to university
- The model varies by state
 - we focus on Victorian model, 'VCE VET'
- Key research question
 - What is the relationship between taking VCE VET subjects and university access

Propensity score matching

- De-identified datasets linked at student level
 - NAPLAN (DEECD), university offers (DEECD), VCE study scores (VCAA) & pre-exam university preferences (VTAC)
- University access
 - Year 12 scaled study scores used in ATAR
 - Predicted offers, based on ATAR & preference cut-offs
 - Self-reported offers
- Controls
 - University applicants who complete Year 12 in 2011
 - NAPLAN, university preferences, school & student factors

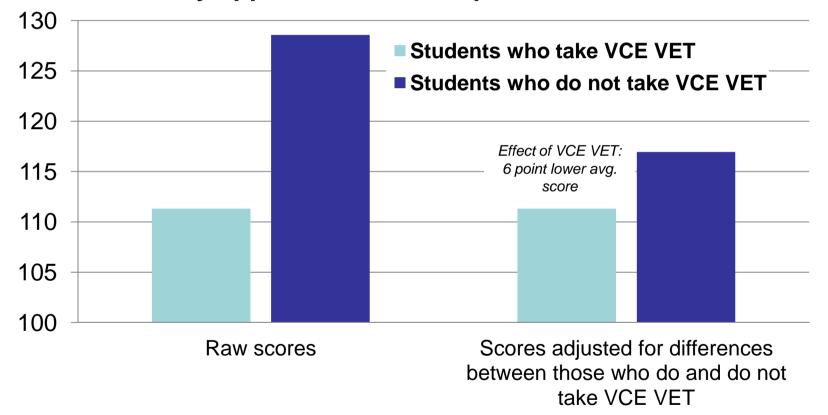
- Propensity score matching
- De-identified datasets linked at student level
 - NAPLAN (DEECD), university offers (DEECD), VCE study scores (VCAA) & pre-exam university preferences (VTAC)
- University access
 - Year 12 scaled study scores used in ATAR
 - Predicted offers, based on ATAR & preference cut-offs
 - Self-reported offers
- Controls
 - University applicants who complete Year 12 in 2011
 - NAPLAN, university preferences, school & student factors

- Propensity score matching
- De-identified datasets linked at student level
 - NAPLAN (DEECD), university offers (DEECD), VCE study scores (VCAA) & pre-exam university preferences (VTAC)
- University access
 - Year 12 scaled study scores used in ATAR
 - Predicted offers, based on ATAR & preference cut-offs
 - Self-reported offers
- Controls
 - University applicants who complete Year 12 in 2011
 - NAPLAN, university preferences, school & student factors

- Propensity score matching
- De-identified datasets linked at student level
 - NAPLAN (DEECD), university offers (DEECD), VCE study scores (VCAA) & pre-exam university preferences (VTAC)
- University access
 - Year 12 scaled study scores used in ATAR
 - Predicted offers, based on ATAR & preference cut-offs
 - Self-reported offers
- Controls
 - University applicants who complete Year 12 in 2011
 - NAPLAN, university preferences, school & student factors

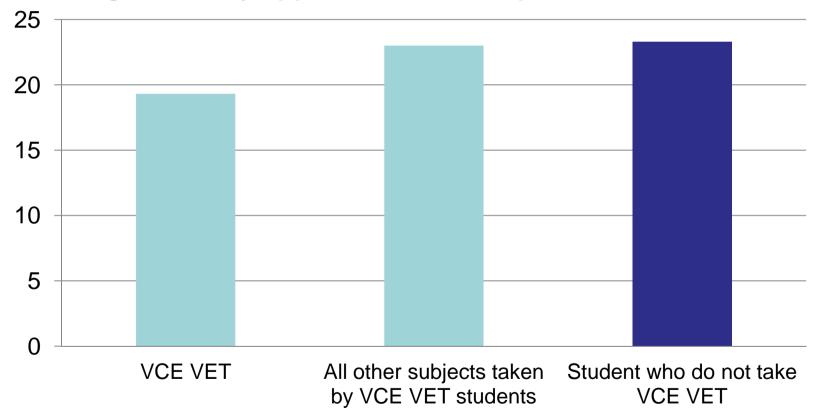
Results – effect on VCE study score

Average VCE study scores (out of a possible 205) among university applicants who complete Year 12 in 2011



Results – explaining the effect

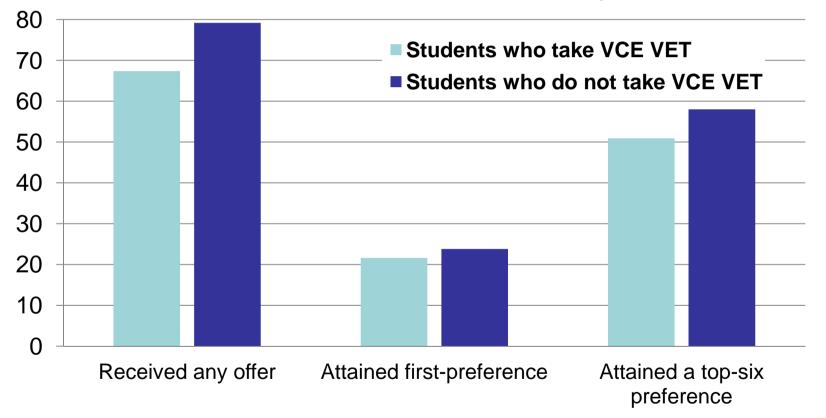
Average subject contribution to study score (out of 50) among university applicants who complete Year 12 in 2011



Scored VET-in-schools

Results – effect on university access

Average proportion of university applicants who complete Year 12 in 2011 who attain a university offer



Implications

- Results suggest that the existing scaling approach may not adequately deal with the unique nature of VCE VET
- There are a range of possible responses
 - Adopt the NSW model VCE VET students 'opt-in' to receive a score rather than having to 'opt-out'
 - Restrict scaling only to students who apply for university

Implications

- Results suggest that the existing scaling approach may not adequately deal with the unique nature of VCE VET
- There are a range of possible responses
 - Adopt the NSW model VCE VET students 'opt-in' to receive a score rather than having to 'opt-out'
 - Restrict scaling only to students who apply for university



 What increases access for disadvantaged students increases access for all students

- What increases access for disadvantaged students increases access for all students
 - Means that it can be expensive
 - Means that even if it helps disadvantaged students it doesn't necessarily narrows any gaps or reduces inequality

- What increases access for disadvantaged students increases access for all students
 - Means that it can be expensive
 - Means that even if it helps disadvantaged students it doesn't necessarily narrows any gaps or reduces inequality
- Move the bottom to the middle, but don't "waste" time and effort on moving the middle to the top

- What increases access for disadvantaged students increases access for all students
 - Means that it can be expensive
 - Means that even if it helps disadvantaged students it doesn't necessarily narrows any gaps or reduces inequality
- Move the bottom to the middle, but don't "waste" time and effort on moving the middle to the top
 - Articulation is important, but especially so at the low end of the ladder

- What increases access for disadvantaged students increases access for all students
 - Means that it can be expensive
 - Means that even if it helps disadvantaged students it doesn't necessarily narrows any gaps or reduces inequality
- Move the bottom to the middle, but don't "waste" time and effort on moving the middle to the top
 - Articulation is important, but especially so at the low end of the ladder
- In terms of things that matter for outcomes policy can only affect a portion of that; a large share is up to the individual

- What increases access for disadvantaged students increases access for all students
 - Means that it can be expensive
 - Means that even if it helps disadvantaged students it doesn't necessarily narrows any gaps or reduces inequality
- Move the bottom to the middle, but don't "waste" time and effort on moving the middle to the top
 - Articulation is important, but especially so at the low end of the ladder
- In terms of things that matter for outcomes policy can only affect a portion of that; a large share is up to the individual
- VET is asked to serve many different objectives; Sometimes one comes at the expense of another. Be prepared for that.