



# The Competitive Impacts of Leveraged Training Outcomes

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# Introduction

- Focus:
  - the *competitive* effect of government policies aimed at securing training outcomes from public construction contracts
- Contexts:
  - the trend towards the contracting out of public construction works and the attempts that have been made to use construction contracts to ‘leverage’ a wide range of social outcomes.
  - Lack of studies which address the ability of contracting arrangements to ensure the delivery of desired ‘quality’ outcomes, or the costs of achieving these outcomes via contracting arrangements.



# Empirical Analysis

- Quantitative study of the effects of 2 WA Training Policies on bid activity in the public construction 'market'
  - Compare to the theoretical prediction that additional training requirements will lead to lower willingness to bid, *ceteris paribus*



# The Training Policies

- **Priority Access**
  - first implemented in August 1999
  - obliged contractors to meet a range of minimum training requirements before tendering on public construction contracts with a value greater than \$150,000.
- **The Building Skills Policy**
  - first implemented in October 2002
  - specified additionally that 10% of deemed labour hours spent on public construction projects with a value of \$2 million or more be allocated to the employment of apprentices and/or trainees.



# Data from the Tender Registration System

- 2519 government non-residential construction contracts awarded between 1997 and 2006.
  - 11,525 tender bids were submitted for these contracts.
  - Excluded are poor records
    - No acceptance date
    - No tenderer name
    - No positive tender amount
    - No postcode



# Approach

- Examine variations in the number of tender bids for non-residential government construction contracts around the time of the implementation of each policy
  - Two 48 month analysis periods:
    - August 1997 to August 2001 for the Priority Access policy
    - October 2000 to October 2004 for Building Skills

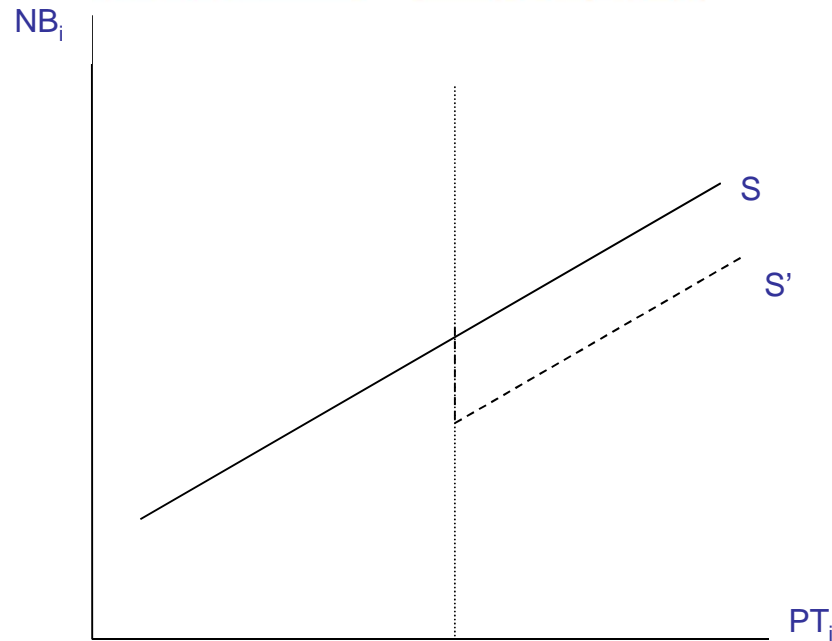


# Approach

- Focuses on differences in bid activity between the ‘market’ segments affected and unaffected by the policy.
  - Priority Access: compare changes in bid activity across the analysis period between
    - a) projects with a pre-tender value of at least \$150,000; and
    - b) projects with a pre-tender value of less than \$150,000
  - Building Skills: compare changes in bid activity across the analysis period between
    - a) projects with a pre-tender value of more than \$2million; and
    - b) projects with a pre-tender value of \$2 million or less



# Conceptual Framework & OLS model



$$NB_i = \beta_1 + \beta_2 PDi + \beta_3 Zi + \beta_4 PzTi + \beta_5 RNi + \beta_6 OFi + \gamma_2 (Zi \times PDi) + \epsilon_{it}$$







# Results: Priority Access Policy

Estimated Coefficients for Equation on Bid Numbers on Government Non-Residential Construction Contracts (*Priority Access Policy*), Western Australia 1997-2001.

Variable	Coefficient	Prob.
Constant	-4.2950	0.6142
Policy Implementation Date (PD)	-0.4990	0.3528
Contract above trigger value (Z)	0.9299	0.0007
Pre-Tender Value (PT)	-1.29E-07	0.0033
Perth/South West Region (RN)	1.4243	0.0000
Building Cost Index (OF)	0.0720	0.3394
PD*Z	0.0216	0.9612



# Results: Building Skills Policy

Estimated Coefficients for Equation on Bid Numbers on Government Non-Residential Construction Contracts (Building Skills Policy), Western Australia 2000-2004.

Variable	Coefficient	Prob.
Constant	9.3524	0.0000
Policy Implementation Date (PD)	-0.4719	0.0516
Contract above trigger value (Z)	1.4512	0.1009
Pre-Tender Value (PT)	1.39E-07	0.0008
Perth/South West Region (RN)	1.2794	0.0000
Building Cost Index (OF)	-0.0436	0.0004
PD*Z	-1.4152	0.0986

# Discussion

- The PSP apparently produced no supply-side impacts on the public construction 'market'.
  - Implies that it produced no benefits in terms of improved training outcomes.

A Clayton's training policy!



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*“It became so flexible over the years so that people just needed to show that they were committed to training, they provided work experience, and they employed uni-graduates, that sort of thing. It got a piece of cake to meet. At the end of the day I didn’t believe it added any value to the system other than one of perception.”* Policy Officer, Department of Education and Training



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*“When they brought in Priority Access the Priority Access that we ended up with had no particular focus on training either apprentices or professionals or graduates, so providing a contractor could demonstrate training obligations...they became registered...There were comments made across the industry that ‘well now we’ve sacked all of our apprentices because we don’t need them’”. Policy Officer, The Department of Housing and Works*



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# Building Skills

- Quantitative results suggest that it has some bite.

There is a *possibility* that contractors actually devoted more resources to training as a result of the policy.

- However, the negative measured effects may be due to the impacts of the administrative requirements.
- Alternatively, the policy may have had only selection effects.



*“The evaluation of the Building Skills Policy was not very positive, it was found not to have added any new apprentices, we could only find one, we could only identify one.” Policy Officer, Department of Education and Training*



*“You get a hospital say, and you’ve got a component for the mechanical contractor, whose got to provide so many training hours, and he’s got a DHW contract with us, and he’s got 15 others with a resource company, and he’s got two apprentices, he shoots those two apprentices over here, and meets all his requirements. He hasn’t actually gone forward. You know, so that’s where the whole system flounders.” Contractor*



*“It wouldn’t encourage me to employ apprentices. We employ apprentices because we employ apprentices. I’m not going to employ an apprentice just because I want to get a government job.” Contractor*



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# Conclusion

- There's a need for a re-think of policy approach!
- “Quantitative” approaches which specify minimum training investments appear to encourage avoidance activity and add large administrative costs
- Alternatives include levies on construction projects to fund a pool of apprentices/trainees.

