



CRC Construction Innovation
B U I L D I N G O U R F U T U R E

Final Report

Multi-Outcomes Construction Policies

Research Report No: 2006-036-A-01

The Research describe in this report was carried out by:

Project Leader Siobhan Austen

Researchers Siobhan Austen
Richard Seymour
Kerry Brown
Craig Furneaux
Angela McCabe

Project Affiliates Western Australian Department of Housing and Works
Rider Levett Bucknall
Curtin University of Technology
Queensland University of Technology
Queensland Department of Public Works

Research Program: A
Business and industry development

Project: 2006-036-A
Multi Outcomes Construction Policies

Date: December 2007

Leaders in Construction and Property Research

Distribution List

Cooperative Research Centre for *Construction Innovation*

Disclaimer

The Reader makes use of this Report or any information provided by the Cooperative Research Centre for *Construction Innovation* at their own risk. *Construction Innovation* will not be responsible for the results of any actions taken by the Reader or third parties on the basis of the information in this Report or other information provided by *Construction Innovation* nor for any errors or omissions that may be contained in this Report. *Construction Innovation* expressly disclaims any liability or responsibility to any person in respect of any thing done or omitted to be done by any person in reliance on this Report or any information provided.

© 2009 Icon.Net Pty Ltd

To the extent permitted by law, all rights are reserved and no part of this publication covered by copyright may be reproduced or copied in any form or by any means except with the written permission of Icon.Net Pty Ltd.

Please direct all enquiries to:

Chief Executive Officer
Cooperative Research Centre for Construction Innovation
9th Floor, L Block, QUT, 2 George St
Brisbane Qld 4000
AUSTRALIA
T: 61 7 3138 9291
F: 61 7 3138 9151
E: enquiries@construction-innovation.info
W: www.construction-innovation.info

Table of Contents

Background.....	1
Project Objectives & Scope	4
Methodology	5
Key Project Stages	5
Social Policies Leveraged on Public Construction Projects in Western Australia and Queensland.....	8
Western Australia.....	8
Queensland.....	15
Literature Review.....	23
Economic Perspectives	23
Empirical Studies Utilising Economic Frameworks.....	29
The Economic Literature: Conclusions	32
Theoretical Framework.....	33
Data Collection and Analysis.....	40
The Training Policies of the Western Australian Government: A Quantitative Analysis.....	40
The Training and Employment Policies of the Western Australian Government: A Qualitative Analysis.....	61
The Training and Employment Policies of the Queensland Government: A Qualitative Analysis.....	77
The Provision of Public Art as a Percentage of Capital Works Contracts: A Theoretical Analysis	93
The Percent for Art Policy of the Western Australian Government: A Qualitative Analysis.....	105
The Art Built-In Policy of the Queensland Government: A Qualitative Analysis .	131
Conclusions.....	166
Appendix A: Summary of interviews for percent for art.....	169
Appendix B: Summary of interviews for Art Built-in	170
References.....	171

Tables

Table 1: Minimum Apprentice and Trainee Requirements	11
Table 2: Transaction Costs: Determinants, Responses and Outcomes	29
Table 3: Percentage Decline in the Average Number of Tender Bids by Pre-Qualification Financial Level 2001-2006.	46
Table 4: Estimated Coefficients for Equation on Bid Numbers on Government Non- Residential Construction Contracts (<i>Priority Access Policy</i>), Western Australia 1997- 2001.....	56
Table 5: Estimated Coefficients for Equation on Bid Numbers on Government Non- Residential Construction Contracts (<i>Building Skills Policy</i>), Western Australia 2000- 2004.....	57
Table 6: Estimated Coefficients for Equation Including Market Segment Measures. Bid Numbers on Government Non-Residential Construction Contracts (<i>Building Skills Policy</i>), Western Australia 2000-2004.....	58
Table 7: Public Art – Benefits identified from the academic literature	104
Table 8: Costs of the Percent for Art Policy According to Key Stakeholder Groups	113
Table 9: Overall summary of the costs and benefits of the WA Percent for Art Policy compared to the literature review	130
Table 10: Costs of the Art Built-In policy According to Key Stakeholder Groups.....	138

Figures

Figure 1: Total, Private, and Public Nominal Values for Non-Residential Construction Work done in Western Australia by Quarter, December 1996 to December 2006.	42
Figure 2: Average Number of Tender Bids on WA Public, Non-Residential Construction Contracts by Year, 1997 to 2006	43
Figure 3: WA Public Non-Residential Construction Awarded Contracts by Regional Development Region, 1997 to 2006 (per cent).....	44
Figure 4: The Average Number of Tender Bids for the Perth, Peel, and South West Regional Development Regions by Year, 1997 to 2006.....	44
Figure 5: The Average Number of Tender Bids for All Regional Development Regions other than Perth, Peel, and the South West Regions by Year, 1997 to 2006.	45
Figure 6: WA Public Non-Residential Construction Contracts by Pre-Qualification Financial Level, 1997 to 2006 (per cent).	46
Figure 7: Tender Bids by Pre-Qualification Level	47
Figure 8: Building Cost Index for the Perth Region by Month, January 1997 to December 2006.....	48
Figure 9: Construction Industry Average Weekly Earnings for Western Australia and Australia by Quarter, February 1996 - November 2006.	49
Figure 10: Materials Cost Index for Buildings other than Housing for the Perth Region by Quarter, December 1997 to December 2006.	49
Figure 11: Department of Employment and Workplace Relations' Skills Vacancy Index for Western Australia by Month, December 1996 to December 2006.	50
Figure 12: Average Number of Tender Bids for Contracts with a Pre-tender value < \$150,000 and Tenders with a Pre-tender value \geq \$150,000 by Year, 1997 to 2001.....	52
Figure 13: Average Number of Tender Bids for Tenders with a Pre-tender value \leq \$2m and Tenders with a Pre-tender value > \$2m by Year, 2000 to 2006.	53
Figure 14: Costs and Benefits of Percent for Art: Comparison between the expected outcomes identified from the literature and additional outcomes from this case study..	165

Background

Construction 2020 (Hampson and Brandon 2004) outlines a series of visions for securing the long term success of the construction industry in Australia. In particular, Vision 2 proposes a future in which “the design, construction and operation of facilities truly reflect the present and future needs of the project initiator, future owners and tenants, and aspirations of stakeholders...it will develop better systems for capturing client requirements (Hampson and Brandon 2004: 14). Understanding and meeting the disparate needs of clients and other stakeholders is critical to the success of construction projects and for the construction industry overall (Seaden and Manseau 2000). This report focuses on an arena that brings a range of stakeholders into the market transactions that underpin construction contract regimes. The expansion of commercial activities to incorporate a mix of social and economic outcomes and broadening the array of those involved beyond the client and constructor to deliver projects is a policy instrument that has not been investigated in much depth in Australia.

In Australia, government is a significant client as the level of government-initiated construction projects approaches 30-40% of total industry turnover in the commercial building and engineering sectors. Government is thereby in a position to strongly influence the market due to its procurement policy for capital works and its role as regulator of the construction industry (Hampson and Brandon 2004). Until recent decades this role of designer, principal and project manager was typically undertaken in-house by public works departments, but in recent times some jurisdictions, have devolved these functions to other government agencies, some of which have little or no experience in construction (APCC 2002), and are then reliant on pre-qualified consultants to provide expertise in the procurement of built assets.

Each jurisdiction in Australia has developed capital works procurement policies that regulate the way in which government agencies procure built assets (see Furneaux, Brown, Allan, McConville, McFallan, London & Burgess 2006 for an overview); including various approaches to the way these agencies engage with the multiple

stakeholders involved in construction projects. Capital works procurement policies establish the role that individual government agencies can have in the construction process, and, depending on the policy stance adopted, may involve a number of additional government agencies in the planning, tendering and delivery of built assets.

This project extends previous research on government procurement of capital works, by explicitly exploring the multiple outcomes that may be leveraged from public works activities through public policy initiatives. McCrudden (2004) notes that government has two roles in these activities: participation in the market as a procurer of goods and services and, using this purchasing to achieve social outcomes. It is this latter element which is the focus of this research. Watermayer (2000) suggests that while public sector procurement policies have increasingly sought to integrate social outcomes into capital projects, there has been limited research on the effectiveness of utilising procurement policy to achieve these outcomes. In a later study, McCrudden (2004) finds that information about the operation of procurement programs that seek to include social outcomes is difficult to locate.

Watermayer (2000) suggests that procurement linked to social objectives may produce positive economic benefits including acting as a stimulant to economic activity, improving competitiveness with other sectors, redressing regional disparity, promoting employment of those in disadvantaged employment groups, allowing environmental sustainability and developing markets for locally sourced labour and products. However, the mix of market and state-driven imperatives in contractual arrangements is not without problems. Potential difficulties identified by Watermayer (2000) include issues of overburdening administrative capacity of governments in procurement oversight, creating unfair competition, compromising value for money in projects, creating a situation in which the private sector is unable to deliver efficient and effective projects and exposing government to high level risk. This research project examines in detail these potential benefits and costs in an Australian context, providing information on the efficacy of a range of interventions undertaken via the contracting of public construction projects. . The specific policies investigated in this research include public works procurement

policies with the embedded social objectives of promoting training, local employment, indigenous employment and public art.

While these policies are technically owned and championed by other agencies, due to their incorporation into capital works procurement they are effectively implemented by public works agencies (e.g. Department of Housing and Works (DHW) in Western Australia, and Department of Public Works (DPW) in Queensland). This situation can give rise to conflict, given that the works agencies' task continues to be the achievement of optimal contract outcomes from restricted budgets in a timely and transparent fashion¹.

A particular perspective explored in this report is that the inclusion of additional social outcomes in the specification of public works contracts often (*but not always*) results in large additional contract management costs. Concern has also been expressed that the specified social outcomes are *sometimes* not achieved, or only achieved at a relatively high cost. In sum, a perception exists within some government agencies that, in many circumstances, the costs of attempting to leverage social outcomes on construction contracts are large, whilst the benefits (in terms of achieved outcomes) are small.

¹ For example, one of the DHW stated corporate objectives, which is “*To effectively and efficiently manage the Department’s resources to ensure its sustainability*” (DHW 2006).

Project Objectives & Scope

The primary objective of the ‘multi-outcomes’ project is to promote the efficiency of the public sector project management regime. It has sought to do this by:

- Identifying the categories and magnitudes of contract management costs associated with leveraged social outcomes.
- Identifying the set of factors that contribute to these costs and, in turn, the circumstances where the inclusion of social outcomes is likely to result in high costs/low efficiency.
- Reviewing alternative mechanisms for achieving specific social outcomes and, in turn, identifying the opportunities for improving the net social benefit from public resources committed to these outcomes.

The set of social outcomes examined in the ‘multi-outcomes’ project have been largely defined by the policy documents that guide the works agencies’ construction activities.

These specify obligations in relation to:

- Employment and training (for example, the hiring of apprentices and indigenous employment);
- “Buy local” preferences; and
- Percent Art - The provision of public art as a percentage of total public works construction costs (typically 1 or 2%).

The project canvassed non-residential construction contracts that relate to both metropolitan and regional areas. The project has focused on the main contract type utilised by the DHW and DPW in their construction contracts, namely, the “design, bid and build” contract type.

Methodology

The study was organised into 2 key parts: Part A: Employment and Training Policies; and Part B: Percent-for-Art Policies. This division reflected, first, the nature of available data and, thus, the suitability of different methodologies. Quantitative information was available to inform the study of the impacts of the training policies, but could not be reasonably applied to the other policies. The policies are also distinct in terms of their intent and application, and this also recommended the adoption of different approaches to the literature reviews, data collection and data analysis. Finally, the members of the project team have distinct disciplinary backgrounds. Austen and Seymour are labour economists who brought to the project their knowledge of economic theories and approaches. Brown, Furneaux and McCabe are management academics whose expertise lies in management theories and methods. The multi-disciplinary approach required by the availability and type of empirical data within the project thus aligned with the skills and backgrounds of the team.

Key Project Stages

Stage 1: Policy Summaries

In the commencement part of the study all the relevant policy documents were accessed and summarised. This provided important background information on the intent, scope and administrative requirements of the various policies, helping inform the design of project's investigation of costs and benefits. The summaries of the policies are outlined in the next section.

Stage 2: Literature Review (Development of theoretical frameworks and identification of comparative approaches)

Across the different parts of the study, the early stages of the project also featured a comprehensive literature review. This served the function of informing the study team of appropriate theoretical frameworks for the investigation of each policy type. Very briefly,

the review first identified the ‘principal-agent’ framework as the primary economic framework, particularly for the analysis of employment and training policies. This framework focuses on the contractual relationship between a principal (e.g. a government department) and an agent (e.g. a construction company). It directs particular attention to the circumstances which can cause contracts to result in less than optimal outcomes (e.g. a lack of training investment by the construction company); the factors that might contribute to these negative results; and possible contractual responses to these deficiencies. Bargaining theory was identified as providing additional, important economic perspectives on the issues affecting the success or otherwise of attempts by government departments to achieve socially desirable outcomes from their projects. As is indicated in latter parts of this report, bargaining theory proved to be especially useful in the analysis of percent for art policies.

Throughout, the literature review also sought out case studies of public-private sector partnerships that both have relevance to the circumstances of government departments and identified possible approaches to the analysis of the effects of multi-outcome policies. In the case of employment and training policies these were shown to be few. The percent for art scheme has a longer history and several discussions of its pros and cons have been assembled.

Stage 3: Data Collection and Analysis

The data collection and analysis stages of the project varied across the different parts of the study. In the training and employment component area, quantitative methods were used extensively to analyse the policy impacts of key training policies on bid activity in relation to DHW construction contracts. This was possible due to the availability of relevant data from the Tender Registration System database. The methodology section fully describes the techniques used to organise the TRS data for this investigation and the statistical methods used in the analysis.

Qualitative methods (specifically, in-depth interviews) were used to collect data from industry participants on the costs and benefits of the various other policies. The recruitment of participants was achieved through purposive selection, whereby informants who were able to provide information on the issue under investigation were selected initially. Further individuals were identified through snowball sampling.

Social Policies Leveraged on Public Construction Projects in Western Australia and Queensland

A number of key policies relating to employment, training and public art affect the contracting arrangements of public works agencies in Queensland and Western Australia in 2006. To provide important contextual information for the analysis conducted as part of the multi-outcomes project these are summarised in the following paragraphs.

Western Australia

Training

The two training policies that affected the Western Australian work agencies' contracting activities up until the start of 2007 and which are still reflected in the 2007 policy documents (as is outlined fully below) are:

- The Building Skills Policy; and
- The Priority Access Policy².

The stated objective of the **Building Skills Policy** is to ensure that there is an adequate supply of skilled labour in the building and construction industry to meet the current and future demand. The policy has been designed to meet this objective through two means:

- By ensuring a new supply of skilled labour is entering the building and construction industry through apprenticeships and traineeships; and
- By up-skilling existing workers in the building and construction industry.

The policy has been implemented through placing minimum requirements on the quantity and quality of training undertaken on all State Government building and construction contracts with a total contract value exceeding \$2 million. The policy's quantity requirements include that 10% of the deemed labour hours be allocated to the employment of apprentices and/or trainees. In addition, up to a maximum of 25% may

² *Priority Access n.d.* Retrieved October 20, 2006, from <http://policies.det.wa.edu.au/>; *Building Skills n.d.* Retrieved October 20, 2006, from <http://policies.det.wa.edu.au/>.

also be allocated to the up-skilling of existing workers. The policy defines deemed labour hours as being 30% of the GST exclusive total contract price divided by 35. The policy's quality controls are reflected in a requirement that, in the case of apprentices and trainees, training must lead to a nationally recognised building and construction qualification. In the case of up-skilling existing workers, the training must lead to a Statement of Attainment from a nationally building and construction qualification.

There are three main groups of entities directly affected by the Building Skills Policy:

- The Western Australian Department of Education and Training, which is the agency that formulated and sponsored the policy.
- The Departments of Housing and Works, Main Roads and the State Supply Commission, which are the State Government delivering agencies, or in other words, the contracting agencies responsible for implementing the policy.
- The contractor(s).

Indirectly, the policy has consequences for other organisations and individuals, such as sub-contractors and 'purchasing' agencies (such as Justice and Health Departments), which need to accommodate the costs of training in their capital works budgets.

The implementation of the Building Skills Policy directly imposes additional contract management tasks on the main entities. For the Western Australian Department of Education and Training, these additional tasks include: recording, assessment and approval/disapproval of contractors' Training Plans, Compliance Reports, and Completion Reports; visiting project sites to ensure compliance with the Training Plan; providing six-monthly reports to the Government; and providing six-monthly Compliance Reports to the contracting agency.

For the contracting agencies, these additional contract management tasks include: incorporating the appropriate contractual requirements in tender documents; keeping the Western Australian Department of Education and Training informed of building and

construction contracts that fall under the Building Skills Policy; and ensuring that any tendering pre-qualification process is compliant with the policy.

For the contractor(s), additional contract management tasks include submission to the Western Australian Department of Education and Training of a Training Plan within 14 days of being awarded the contract; a Compliance Report at the end of each 13 week period; and a Practical Completion Report within 10 days after the completion of the project.

The stated objective of the **Priority Access Policy** is to increase the employment and training opportunities in Western Australia to ensure that there is an adequate supply of skilled labour to meet future labour market demands. One of the specific policy objectives is to increase the number of apprenticeship and traineeship positions.

The Policy has been implemented through requiring contractors to meet a minimum of 100 points in order for them to be able to tender on State Government building and construction contracts that are greater than or equal to \$150,000 in value, or State Government procurement contracts that are greater than or equal to \$500,000 in value. Points are allocated to a contractor based on the contractor's involvement in specified employment and training activities. As such, it largely attempts to regulate training quality. Specified activities include the contractor having an apprenticeship and/or traineeship employment level of 10% or better, the employment of staff with recognised VET qualifications, the employment of staff with tertiary qualifications, and staff participating in work related training programs. The policy is weighted more towards apprenticeships and traineeships, with contractors being allocated 100 points if they meet the apprenticeship and traineeship employment level criteria. In contrast, a contractor is only awarded either 30 or 40 points for meeting any of the other specified employment and training activities.

The three main entities involved in building and construction contracts that fall under the Priority Access Policy are the same as those for the Building Skills Policy. The DET is

the sponsoring agency; DHW or another public works department is the delivery agency; and contractors are also directly affected.

The additional contract management tasks and costs associated with the Priority Access Policy include, for the DET: the processing and approval/disapproval of contractors' Priority Access applications; and conducting 12-month compliance checks of contractors. For the DHW or its equivalent, additional tasks include: incorporating the appropriate contractual requirements in its tender documents; and ensuring that any tendering pre-qualification process is compliant with the policy. For the contractor(s), additional contract management tasks include: registering as a Priority Access employer with Western Australian Department of Education and Training every 24 months; and a 12-month compliance check carried out by the Western Australian Department of Education and Training.

The **Priority Start – Building Policy**, which came into affect on January 1, 2007 superseded the Building Skills Policy and the Priority Access Policy. Its stated objectives are similar to the previous policies: to ensure that contractors employ apprentices and/or trainees on State Government building and construction sites.

The policy is also implemented in a similar fashion. A minimum apprentice and trainee requirement is imposed on all State Government building and construction contracts where the estimated labour component is greater than \$300,000. The specific minimum requirements vary with the size of the contract, as is shown in Table 1 below.

Table 1: Minimum Apprentice and Trainee Requirements

Value of the Labour Component for a Contract	Minimum Apprentice or Trainee Requirement
\$300,001 to \$1 Million	1
\$1,000,001 to \$2 Million	2
\$2,000,001 to \$3 Million	3
\$3,000,001 to \$4 Million	4
\$4,000,001 to \$5 Million	5
\$5,000,001 to \$6 Million	6
\$6,000,001 and above	Assessed on a project by project basis using above ratio as guide.

Source: (Priority Start – Building Policy, 2006)

Similar to the Priority Access Policy, the new policy also requires that a contractor has to pre-qualify before they can tender on any State Government building and construction contract. A contractor can pre-qualify by either providing evidence of direct indenture of apprentices and/or trainees, engaging apprentices and/or trainees from a group training organisation, or by providing evidence of engaging sub-contractors that have indentured or host apprentices or trainees. This applies to both government and private work undertaken by a contractor. For contractors who are unable to demonstrate either of these conditions, there is a six month provisional registration available.

On being awarded a contract, a contractor must then comply with the minimum apprentice and training requirement by engaging the minimum number of apprentices and/or trainees based on the labour component of the contract. The contractor can meet this minimum apprentice and training requirement by direct indenture of apprentices and/or trainees, engaging apprentices and/or trainees from a group training organisation, or by hiring sub-contractors who meet the training requirements.

The three main entities affected Priority Start – Building Policy are unchanged. The Department of Education and Training has responsibility for the processing and approval/disapproval of contractors' Training Plans. The contracting agency, such as the DHW is required by the policy to incorporate appropriate contractual requirements in its tender documents, and to process contractors' application for pre-qualification to the Priority Start scheme. Contractors have responsibility for the development and submission of a Training Plan.

Employment

A key employment policy affecting the contracting of public construction work in Western Australia is the **Buy Local Policy**. The stated objective of this policy is '*...to maximise supply opportunities for competitive local Western Australian businesses when bidding for State government contracts*' (Buy Local Policy 2002: 1). Some of the expressed motivations for the policy are a preference for increasing local contracting

opportunities, facilitating sustainable local business employment growth, maximising industry development potential, stimulating competition, and ensuring that government agencies' purchasing decisions are based on best value for money.

The policy has been implemented through requiring that a "local content" selection criteria be included in State government tenders that have an estimated contract value of \$750,000³ or above. In addition, a minimum weighting of 20% must be applied to the "local content" selection criteria. Although it is not mandatory, State Government agencies are also encouraged to apply the Buy Local Policy to tenders that have an estimated contract value of less than \$750,000.

Under the Buy Local Policy, there are two types of price preference that a government agency can use in assessing tender bids. The first is an 'Imported Content Impost Price Preference'. When assessing tender bids, this preference allows a state government agency to scale-up the total cost of the imported content contained within a tender bid by 20%⁴.

The second is a 'Regional Price Preference'. Under this preference, government agencies can reduce the value of total tender bids of eligible businesses by a specified percentage⁵. To be eligible for this preference a business must be registered or licensed to conduct business within Western Australia and have conducted its business for 6 months from a permanent office located within a prescribed distance from a contract point⁶. The preference does not apply to businesses in the Perth region.

The Buy Local Policy also encompasses the **Western Australian Government's Aboriginal Economic Development Strategy**. The objective of this strategy is to increase the number of Aboriginal owned and operated enterprises, or enterprises that

³ It does not state in the policy document whether the contract value is inclusive or exclusive of GST

⁴ This excludes goods, services, or items imported into Australia from New Zealand.

⁵ For example, under the Regional Business Preference the assessment of housing and works purchase or contract tenders bids is reduced by 5%, up to a maximum of \$50,000.

⁶ The regional zones where the preference does apply are defined in the *Regional Development Commissions Act 1993*

employ Aboriginal people, that supply government agencies. To achieve this objective Government agencies are to give priority to tender bids from businesses that are solely owned by Aboriginal people, in partnership with Aboriginal people, or have implemented employment programs for Aboriginal people.

The State Supply Commission is the sponsoring agency for the Buy Local Policy. It is charged with responsibility for administering the policy; conducting random audits of government agencies to assess their compliance with the policy; and reporting to the State Government on this compliance.

The State Government delivering agency(s), such as the DHW, are responsible for contract management tasks including: defining the contract points and prescribed distances in contract documents; calculating the impost and preferences; defining provisions for breaches of the policy; monitoring and managing contracts to ensure compliance; and recording and reporting the percentage of contracts awarded based on business location.

To make use of the policy, contractors need to calculate the total cost of goods, services, or items affected by the policy; and demonstrate compliance with their buy local contractual commitments.

The **Aboriginal Enterprise & Employment Tendering Preference Policy** also targets indigenous employment. Its stated objective is to ‘...*promote increased employment and economic opportunities for Aboriginal Western Australians by offering a tendering preference for tenders involving enterprises that employ, or are owned and operated by Aboriginal residents of Western Australia*’ (Aboriginal Enterprise and Employment Tendering Preference Policy 2005: 1). The policy was implemented in December 2005, and will be reviewed in December 2007.

This policy is implemented through the use of a tendering preference, which is dependent on whether the organisation employs Aboriginals or is an Aboriginal enterprise. The

tendering preference is calculated as 10% of the preference amount, with the maximum tendering preference being set at \$100,000.

Percent for Art

In 1989 the WA government adopted a Percent for Art scheme as a policy to stimulate the incorporation of public art into the built environment. The public art strategy involved the following key areas:

- The percentage of the construction costs of public building scheme, commissioning scheme, townscape enrichment scheme and corporate sector scheme.
- The percent for art scheme involved a percent for the total construction costs being spent on artworks, in particular, art that was integrated into the building. Capital works projects over \$2m must allocate 1% of total costs to art and under \$2m the percentage is up to the agency's discretion.
- WA also developed a ministerial taskforce on public art that was designed to oversee the selection process, implementation, advise government, develop advocacy material and provide role models for the private sector.

The aims of the WA public art strategy were to enhance the aesthetics of public buildings and create employment opportunities for artists in WA (WA Taskforce 1993). The purpose of the scheme was to commission local artists to develop artworks to be integrated into contracted public buildings and to improve the environment in which people live and work.

Queensland

Training

The key training policy in the Queensland jurisdiction is the **10% Training Policy**, which has the objective '*...to maximise the potential of Queensland capital works*

projects to address skills shortages and create additional employment opportunities for apprentices, trainees and cadets in the building and construction industry’.

The Policy has been implemented through placing a minimum training requirement on all Queensland State Government building and construction contracts that have a total contract value exceeding \$250,000 for building or \$500,000 for civil construction. The quantity requirements in the policy require that 10% of the deemed labour hours⁷ be allocated to the employment of apprentices, trainees or cadets. In addition, up to a maximum of 25% may also be allocated to the up-skilling of existing workers. Furthermore, quality controls in the policy require that the training must lead to a nationally recognised building and construction qualification or a Statement of Attainment.

The Queensland Department of Education, Training and the Arts is the sponsoring agency for this policy. Its responsibilities include: assessment and auditing of contractors; auditing contractor data; recording of compliance data; provision of compliance reports; and liaison with contracting agencies to determine strategies for dealing with contractor non-compliance.

The contracting or delivering agencies include the Department for Public Works and the Department of Main Roads. They are responsible under the policy for the incorporation of appropriate contractual requirements in tender documents; liaising with the sponsoring agency on contracts that fall under the policy; and ensuring that any tendering pre-qualification process is compliant with the policy.

The Policy requires from contractors a written undertaking to comply with the policy; a *Compliance Plan* within 10 works days of acceptance of the contract; interim compliance reports at the end of each 13 week period; and, at the completion of the project, a *Practical Completion Report*.

⁷ The policy defines deemed labour hours as being 30% of the total GST exclusive contract price divided by \$35/hour times 10% for building construction projects, and 15% of the total GST exclusive contract price divided by \$35/hour times 10% for civil construction projects.

Employment

There are a number of policies relating to the achievement of employment objectives via Queensland government construction contracts. They include the **Indigenous Employment Policy**, which has the stated objective of maximising:

“.... the potential employment opportunities on Queensland Government building and civil construction projects and address skills shortages in Indigenous communities. It also aims to build Indigenous capacity to participate in building and civil construction.” (Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects n.d., p.2)

The Policy has been designed to meet these objectives by requiring contractors to ensure that employment and accredited training occurs on Queensland Government building and civil construction projects in specified Indigenous communities. The Policy was initially implemented in 2001. A review of the policy was conducted in 2003, with the current, policy being the outcome of that review. The current policy was implemented on the 1st January 2004.

The Policy has been implemented through placing a minimum employment and training requirement on all Queensland State Government building and construction contracts in specified Indigenous communities that have a total contract value exceeding \$100,000 for building contracts, and any value for civil construction contracts. The policy replaces the 10% Training Policy in specified Indigenous communities with a requirement that a minimum of 20% of the deemed labour hours⁸ be undertaken by Indigenous people

⁸ The Policy defines deemed labour hours for building construction projects as being 30% of the GST exclusive total contract price divided by \$35/hour times 20%. For civil construction projects it defines deemed labour hours as being 15% of the GST exclusive total contract price divided by \$35/hour times 20%.

recruited from the local community. Half of the 20% of these hours are to be in accredited training.

The sponsoring agency for this policy is the Queensland Department of Employment and Industrial Relations. Its legislated tasks include overseeing the overall implementation and monitoring of the policy. The contracting agencies are responsible for tasks relating to the incorporation of appropriate contractual requirements in tender documents; informing the sponsoring agency of contracts that fall under the policy; ensuring that any tendering pre-qualification process is compliant with the policy; and liaising with the sponsoring agency with regard to determining the strategies for dealing with contractor non-compliance. Additional contract management tasks for contractors include: coordination and development of employment and training project plans to identify skills needs and availability; and completion of compliance forms.

A further policy aimed at promoting employment is the **Local Industry Policy**⁹. This has the objective of maximising the use of local goods, services and labour in major government resource and infrastructure projects, and through this provide economic benefits to Queensland and the project proponents. As stated in the policy document (“Local Industry Policy” n.d., p.2):

“Whilst recognising that investment decisions are made in a competitive global market, it is desirable to achieve the maximum level of local content in goods, services and labour where these are competitive as to price, quality, and delivery requirements.”

The policy was developed by the Queensland Department of Premier and Cabinet over a six month period, and then the responsibility for implementation of the policy was passed

⁹ The description of the Local Industry Policy is based on the version of the policy which applied at the time of writing. A new version of the policy is now available and can be accessed at:
<http://www.dtrdi.qld.gov.au/dsdweb/v3/documents/objdirctrled/nonsecure/pdf/32014.pdf>

on to the Department of State Development. The policy was approved by Cabinet in December 1999, and the actual implementation program commenced in February 2000.

The Local Industry Policy has been implemented through requiring project proponents (i.e. the entities funding the projects) to prepare Local Industry Participation Plans for Queensland government funded projects with a value greater than \$5 million or major projects where the Queensland government has provided a significant contribution¹⁰. In these plans project proponents are required to demonstrate how they will give competitive Queensland businesses an opportunity to be involved in their project.

The Policy outlines seven key criteria that project proponents should take into consideration (where applicable) when developing their Local Industry Participation Plan. These are specified in the policy (“Local Industry Policy” n.d., p.5) as:

- “1. Development of long-term, internationally competitive industries in Queensland and Australia;*
- 2. Employment, training and skills development;*
- 3. Regional development and initiatives;*
- 4. Value-added activity;*
- 5. Opportunities for participation by small business;*
- 6. Existing industry development activity and proposed new investment; and*
- 7. Innovation, research, and development.”*

The Queensland Department of Tourism, Regional Development and Industry is the sponsoring agency for the Local Industry Policy. Its tasks include the policy’s implementation and evaluation, as well as reporting to Cabinet on the ongoing implementation of the policy.

¹⁰ Defined as a government contribution of more than \$2.5 million.

The contracting or delivering agency(s) are the various project proponents – for example, the Department of Main Roads. As noted above, they are responsible for preparing Local Industry Participation Plans. These agencies are also required to complete and submit reports on the outcome of their Local Industry Participation Plans to the chair of the Local Industry Committee on a six monthly basis;

The Industry Capabilities Network (ICN) is also involved in the implementation of the Local Industry Policy, as it has the specific function of

assist[ing] with the identification of competitive local supplies for the purpose of increasing opportunities for import replacement activities.”

(“Local Industry Policy” n.d., p.6)

Its tasks associated with the Local Industry Policy include: the provision of advice to project proponents on the capabilities and competitiveness of Queensland industry; the provision advice or seconded staff to project proponents to assist in the development of Local Industry Participation Plans; and the provision of advice to project proponents on the ability of Queensland and Australian industry to uptake overseas technology.

Art Built-In

The Queensland policy for inclusion of public art as a percentage of building works is the *Art Built-In* policy. Despite the difference in names between the Queensland and the Western Australian policies (Percent Art) they have virtually identical policy intent, with a percentage of the total building contracts allocated to public art commissions although they do differ on specific details.

It is important to note that the *Art Built-In* policy has been recently replaced in Queensland by the *art+place* policy, following a review by the Queensland Government. As commissioned public art projects funded under this new policy have yet to be finalised, this report will focus on the *Art Built-In* policy instead. Important differences between the two policies are noted later in the report.

The stated purpose of the *Art Built-In* policy was:

... allocating 2% of the total value of State Government capital works building projects for public art. The purpose of the policy is to ensure that cultural expertise and contemporary discourse and an integral part of shaping the built environment and influencing the spirit of place. The policy aims to maximise the social, cultural and economic benefits that will result from a heightened quality, experience and understanding of Queensland's public places (Art Built-In Policy and Guidelines 2004).

The *Art Built-In* policy is implemented through requiring capital works projects valued at more than \$250,000 to allocated 2% of the total budget (excluding government fees and charges), and this allocation occurs at the business case stage of the planning of new capital works, as part of the *Capital Works Management Framework*.

Arts Queensland, through its Public Art Agency is the sponsoring body of the *Art Built-In* policy and is responsible for its implementation. Specifically the Public Art Agency assists in best practice commissioning of public art, providing assistance to government agencies to audit and manage their existing public art collection, providing policy advice on allocation of monies for public art from capital works budgets. The Public Art Agency provides ongoing evaluation of the *Art Built-In* policy, for the provision of ongoing policy advice to government and to government agencies. The Public Art Agency also is responsible for developing a whole of government strategy for the audit and management of the Government Public Artworks Collection, including de-accessioning and disposal of artworks. The Public Art Agency also has an advocacy role in promoting public art in Queensland.

Having reviewed the social outcomes which are intended to be achieved through public works procurement in Queensland and Western Australia, the next section outlines the economic perspectives which underpin the subsequent analysis of the policies.

Literature Review

Economic Perspectives¹¹

As could be expected, the theoretical literature in economics on the specific topic of the effects of the above types of policies on construction projects is very limited. However, a number of economic studies have developed frameworks and engage in analyses that have some application to the issues under consideration. In the economics literature these papers are generally associated with applications of *microeconomic* concepts, especially those relating to what is known as *principal-agent* or *contract theory* analysis.

Principal-agent analysis is an economic framework that can be applied to the contractual relationship between a public-sector works agency and their ‘agents’ (e.g. a construction company). As is typical of most microeconomic theory, this framework begins by setting out the objective functions of the two sets of players. For example, the works agency is assumed to aim for the maximum possible net social benefit from its projects, whilst the construction company is assumed to aim for maximum profits. Principal-agent analysis then directs attention to the circumstances which can cause contracts to be ‘incomplete’ and, as a consequence, fail to realize the maximum possible payoff, especially in terms of net social benefits.

A particularly important aspect of this type of analysis relates to the difficulties encountered in designing a contract that fully specifies all the required quantity and quality outcomes. As is elaborated on in the papers surveyed below, these problems can cause additional monitoring and transaction costs, encourage strategic, anti-competitive behaviour, and, generally, result in a failure to realize potential social benefits.

The work of Harvard economist Oliver Hart is highlighted in the first part of this literature review. He appears to be one of the few economic analysts who thus far have

¹¹ A technical version of this section is included in Section X.

focused attention on issues associated with the administration of service contracts by government agencies. A much larger literature, in which Hart is also represented, explores the potential costs and benefits of privatization per se – building a case either for or against privatization. However, much of this literature is not directly relevant to the current project, given its concerns with the efficiency of contract management in a *post-privatisation* environment.

Much of Hart's work is based on his studies of a US agency involved in the management of prisons. In the following paragraphs we summarise the parts of his models and conclusions that have direct relevance to the inclusion of 'quality' improvements in the specification of government contracts. In our own work we establish an analogy between these quality provisions and the inclusion of requirements relating to training/local employment in a construction contract.

Hart, Shleifer & Vishny (1997) develop a model, (hereafter the HSV model), which they use to explore the factors affecting the ability of a government agency to secure social benefits from the contracting out of a government service. The model relates to circumstances where contracts are incomplete and the government agency is interested in achieving the 'basic' contract outcomes, as well as 'quality improvements'. These improvements are described as creating direct and effort costs for the contractor but social gains for the community at large. In the first stage of their analysis, Hart et al. demonstrate that, in the absence of specific contract provisions, contractors do not have a profit incentive to incorporate quality innovations and, as a consequence, potential social benefits from the contract will not be realised¹².

The second part of the HSV model that is relevant to the effects of employment and training policies examines the negotiation of contract provisions relating to quality

¹² This is a fairly common assessment of how firms and individuals respond to incentives. For example, Holmstrom and Milgrom's (1991) hypothesise that when an agent has to perform multiple tasks and rewards are linked to measured performance, she/he will devote more effort to those task(s) where performance is most easily measured.

innovations. These negotiations are shown to have the potential to increase the social benefits from the contract relationship. However, importantly, a number of sets of factors will influence the contract outcomes. These sets include: a) factors affecting the relationship between a contractor's investment in quality innovation and social outcomes (for example, if a project is very small in size the influence of quality variations is likely to be minimal); b) factors affecting the relationship between quality innovations and the contractor's costs of production (these factors affect the barriers to the inclusion of contract provisions relating to 'quality' outcomes); and c) factors affecting competition in the tender market (for example, 'tight' markets will tend to bid up the price of quality innovations).

In sum, the HSV model provides a useful starting point for the analysis of the issues raised in this project. It establishes a framework for understanding the rationale and details of multi-outcome policies. It also helps establish a framework for examining the circumstances that potentially could result in resistance to training and employment provisions amongst contractors and/or make the implementation of these provisions costly.

Despite these advantages, however, the HSV framework also has some important limitations. For one it only deals with the case where the contractor derives *no* benefits from quality investments (that is, all benefits are 'externalized'). Furthermore, the model does not include transaction and/or governance costs – and these are likely to be a significant constraint on the efficiency of contract provisions relating to training and employment. Additionally, the HSV model is limited to the case of a single government agency, whereas training and employment policies typically involve a number of agencies, who are likely to have different perceptions of 'the social good'.

A development of the HSV model by Bennett and Iossa (2005) helps address the first of these limitations. They incorporate considerations of the effect of asset ownership on the outcomes of the HSV model. Specifically they address the possibility that a contractor may expect to capture (or 'internalize') some of the benefits of a quality innovation.

Using Bennett and Iossa's terminology, in these circumstances the residual value of the contract accruing to the firm increases with the quality innovation. This increases the likelihood that the firm will make investments in quality and reduce problems associated with regulating these innovations.

Training provides an interesting application of these ideas. For example, a contractor may anticipate that by training workers the asset value of the company will increase. This will provide direct incentives for the firm to engage in training and reduce the difficulty associated with achieving this particular social objective.

A large literature on the economics of training (see especially Becker, 1975; also Ehrenburg and Smith 2005 for an overview) helps to elaborate on the possible relationships. We can start by noting that the HSV assumption that all social benefits are external is akin to an assumption that the skills imparted through training are perfectly transferable (or 'general'). The main theoretical models of training also posit (in line with the predictions of the HSV model) that when skills are highly transferable, firms in competitive labour markets have little incentive to invest in their provision. This is because in the post-training period trained workers will be able to access alternative jobs at higher wage rates. The training firm thus has little opportunity to recoup any costs incurred in the provision of training.

The Bennett and Iossa extension focuses attention on the alternative situation, where the skills produced by a training program have at least some degree of specificity and/or the skills involved are general but the labour market is imperfectly competitive. In these cases, due to restrictions on the mobility of trained workers, the firm is able to capture (or internalise) at least some of the benefits of a training investment.

In sum, Bennett and Iossa's work adds a further set of factors to consider in empirical work. These include: the nature of the training likely to be involved with the project (general or specific); the level of competition in the local labour market (competition increases the mobility of workers, reducing possible returns to the contractor from

investments in general skills); and uncertainty about future product market conditions (which is likely to reduce a contractor's willingness to commit to quality investments).

Bargaining Theory

Globerman and Vining (1996) take a different and less theoretical approach to the analysis of the contracting out of services. However, their paper provides a useful complementary framework to the HSV model, especially with regard to the analysis of the impact of governance costs on the efficiency and organisation of contracts (the second deficiency of the HSV model noted above). As is noted in the following paragraphs, the Globerman and Vining approach is similar to the framework used by leading Australian commentators on these issues – Jensen and Stonecash.

Central to Globerman and Vining's framework are issues associated with task complexity, contestability, and asset specificity. Their paper identifies the possible effects of each of these possible features of the contracting environment and describes potential strategies for mitigating the effects of each.

Task complexity refers to 'the degree of difficulty in specifying and monitoring the terms and conditions of a transaction' (Globerman and Vining 1996: 579). When the task being contracted is complex, problems associated with uncertainty, asymmetric information, and potential externalities will rise, increasing bargaining costs¹³. The authors make the obvious point that if task complexity is large and outside the sphere of a government agency's expertise, the agency may not have the specialized knowledge to effectively design and negotiate contract outcomes. Jensen and Stonecash (2004) add details on the role of uncertainty, noting, first, that if the level of uncertainty is high tendered prices are likely to incorporate a risk premium. When levels of uncertainty are very high, a

¹³ Globerman and Vining (1996) define four types of bargaining costs: contract negotiation costs; post contract renegotiation costs; performance monitoring costs; and dispute costs. They point out that, although the last three bargaining costs are all *ex post*, they can be identified and dealt with during the design of a contract, thus adding to contracting costs in the *ex ante* period.

contractor may not tender for a project because no risk premium would compensate for the risk.

Contestability refers to the degree of potential competition in the market for the contracted product or service and in Globerman and Vining's (1996) analysis this acts as a deterrent to opportunistic behaviour¹⁴. It also creates an incentive for contractors to submit tender bids close to their marginal costs of production, reducing the agency's bargaining task. Rimmer (1994) concurs with this analysis, arguing that the contestability in the market should be one of the key factors considered before a project is outsourced (see also Reca & Zieg 1995).

Asset specificity – the extent to which physical and human assets associated with a project can be secured from other sources - influences potential opportunism costs through the ability of one or other party to 'hold up' a project. Jensen and Stonecash (2004) present a similar argument. They conjecture that if an agency has to renegotiate a contract variation with a private provider, the private provider may engage in opportunistic behaviour and increase its price during the renegotiation. In other words, the private provider will appropriate an economic rent from the government, through hold-up.

Importantly, Globerman and Vining (1996) note that, *ex post*, task complexity, contestability, and asset specificity are symmetrically related. They argue that the higher the degree of task complexity, the higher the level of investment will be in specific production knowledge. This, in turn, produces a barrier to entry, reducing contestability in the market in future contracting rounds and raising opportunism costs.

¹⁴ Globerman and Vining (1996: 578) define opportunism as: "... behavior by a party to a transaction designed to change the agreed terms of a transaction to be more in its favour". This type of behaviour typically occurs in the *ex post* period (that is after the initial contract has been agreed) and can involve one party to the contract attempting to exploit the other's dependence on contract outcomes to renegotiate contract terms.

Keeping this in mind, the following table outlines the various possible scenarios described by Globerman and Vining (1996) and their predicted implications for behaviour and contract outcomes.

Table 2: Transaction Costs: Determinants, Responses and Outcomes

<i>Environment</i>	<i>Behavioural response</i>	<i>Implications for contract outcomes</i>
Low task complexity, High contestability, and Low asset specificity		Small bargaining and opportunism costs. Lower contract price and higher efficiency ceteris paribus
Low task complexity, High contestability, and High asset specificity	Potential for contractor to engage in hold up	Contractor may ask for higher contract price (to compensate for risk of hold up)
Low task complexity, Low contestability, and High asset specificity	Potential for both parties to engage in hold up	Higher bargaining and opportunism costs
High task complexity, High contestability, and Low asset specificity	Potential for disagreements about contract specifications & performance monitoring	Higher bargaining costs
High task complexity, Low contestability, and Low asset specificity	Contractor may use ambiguities or deficiencies in contract specification to seek contract renegotiation	Higher bargaining costs
Low task complexity, Low contestability, and Low asset specificity		Higher opportunism costs due to low contestability
High task complexity, Low contestability, and High asset specificity		Worst case scenario contributes to higher bargaining and opportunism costs; higher prices and lower efficiency

Empirical Studies Utilising Economic Frameworks

There have been very few empirical studies of the types of multi-outcome policies and, of those that have been conducted, concerns have been raised about the ability to generalize their results. In the following paragraphs we summarise the literature relating to what can be thought of as economic studies of the experiences of contracting government services.

Our primary aim has been to identify the approaches taken to this measurement task and, in doing so, inform the design of empirical strategies for the analysis of multi-outcome construction policies. A secondary aim of this part of the literature review was to use the available empirical evidence to cast more light on the theoretical propositions raised in the previous section.

Jensen and Stonecash (2004) provide a very useful overview of empirical studies of outsourcing. They describe how empirical analysis of outsourcing has mainly focused on cleaning and refuse collection (e.g. Edwards and Stevens, 1978¹⁵); mainly because they are the most frequently outsourced government services, and also because the outputs from both of these services are fairly easy to measure. Other empirical studies have been conducted on industries associated with transportation services, the maintenance of heavy equipment, waste water treatment (e.g. Holcombe 1991¹⁶), fire protection services, prison management services, tax assessment services (e.g. Carver 1989¹⁷), and road and maintenance services (e.g. Blom-Hansen 2003¹⁸). Most (but not all) of these analyses provided evidence of reductions in expenditure.

Other empirical evidence reviewed by Jensen and Stonecash indicates that very few outsourcing projects turn out as expected. Supporting the proposition advanced in the

¹⁵ This study examined the alternative market structures and regulatory arrangements in the private provision of residential refuse collection to determine the most efficient market structure and regulatory arrangement. The empirical analysis was based on three types of regulatory schemes for the private provision of refuse collection services: contracting, franchising, and licensing. It concluded that contracting was the *most efficient* regulatory arrangement for the private provision of refuse collection services.

¹⁶ This study used a linear regression model to compare the private and public construction costs of wastewater treatment plants. It concluded that private wastewater treatment plant construction costs were *higher* than public wastewater treatment plant construction costs. One factor contributing to this result was *contract design*, because the contracts for private construction of wastewater treatment plants allowed the private providers to pass most of their construction costs on to the government.

¹⁷ This study used a linear regression model to analyse whether the private provision of property tax assessment in Massachusetts cost less than the public provision. It concluded that the private provision of property tax assessment in Massachusetts cost *more* than the public provision. A number of explanations were contributed: a *lack of competition* in the private market; and legislation requiring property tax assessment to be routinely performed, causing an *inelastic demand* for property tax assessments, leading to higher prices in the private market.

¹⁸ This study used a pooled regression model to analyse the magnitude and source of expenditure reductions obtained from the partial contracting out of municipal road maintenance in Denmark. It concluded that partial contracting out of municipal road maintenance in Denmark did lead to a *cost saving*. To determine if the reduction in costs was due to an increase in efficiency or quality-shading, a quality index was added to the model.

previous section, this research apparently identified problems associated with incomplete contracts, ex ante cost uncertainties, the specification and measurement of output, and the inherent risk associated with all projects. The authors assert that contract design is one of the important factors in determining the success of outsourcing the provision of a government service.

The methodology generally used to determine the magnitude of any cost savings from the outsourcing of a government service involves a comparison of the cost of the public provision of a government service with that of the private provision. Most of the studies cited above as examples employed regression techniques to establish these comparisons. However, Jensen and Stonecash note that a number of difficulties are typically encountered in effectively implementing these methods. First, public sector data on operating costs and outputs is typically lacking. Second, it is difficult to find comparable services provided in public and private sector environments. Third, the dynamic nature of most contractual relationships reduces the value of cross-sectional data¹⁹.

Other work by Jensen (notably, Domberger and Jensen 1997) provides a useful example of a case-study approach to the identification of the costs and benefits of outsourcing, especially with regards ensuring 'quality' outcomes. These authors examine outcomes from the outsourcing of refuse collection services and note that in this particular case effort can be either devoted to producing the refuse collection service or maintaining the refuse collection vehicles. They found that in the cases where the government owns the refuse collection vehicles and leases them to the private provider, the private provider would have little incentive to maintain the vehicles to a standard that would ensure their economic life extended passed the length of the contract. Thus, to overcome this problem, where refuse collection services are contracted out, it is generally specified that the private provider should own the vehicles. They concluded that poor specification and lack of monitoring appeared to be the main causes of quality-shading investments (such as the

¹⁹ In an earlier paper, Domberger and Jensen (1997) make similar points. They argue that there are number of issues that lead to confusion in interpreting empirical evidence on the effects of outsourcing. These relate to problems associated with estimating changes in costs, measuring any change in quality, and distinguishing the effect of competition from ownership.

failure to maintain vehicles) and that improved contract design and implementation could prevent quality-shading investments.

The Economic Literature: Conclusions

This review of the economic literature identified a number of valuable theoretical perspectives on the issues raised in multi-outcomes project. Specifically, the theoretical models identified in this section define key categories of factors that are likely to be relevant to the costs and benefits of leveraged training and employment policies, including:

- the relationship between a contractor's investment in training and/or local employment and the magnitude of social outcomes;
- the relationship between training and/or local employment and the contractor's costs of production;
- competition/contestability in the tender market;
- the nature of the training involved with the project (general or specific);
- the level of competition in the local labour market;
- uncertainty about future product market conditions;
- the complexity of the training and/or employment or arts task;
- the specificity of assets devoted to the contracted project;

Theoretical Framework

The theoretical framework developed by Hart, Schleifer & Vishny (1997), and outlined in the above section, is used in this study as the basis for the analysis of the potential efficiency effects of leveraging especially training outcomes on public construction contracts. As was noted in the literature review, the HSV model was developed to account for features of a contractual relationship relating to the provision of prison services. It was also motivated, in part at least, by a desire to evaluate whether public ownership or privatisation is the ideal arrangement. However, as we show in this section, the model can be applied both to situations where the provision of services and/or public works is already privatised and to the specific case of desired training and other investments on construction projects. Furthermore, the insights from the other strands of relevant literature – such as bargaining and standpoint theory – can be added to the HSV framework to provide a broad theoretical perspective on the issues raised in the study.

Using the notation used in the original HSV model, M is a contractor whose actions (efforts) can influence the social benefits, B , and the costs, C , associated with a construction project. Residual control rights associated with the project are assumed to lie with the contractor, in the sense that he/she is responsible for any cost over-runs associated with the project and reaps the financial gains of any uncontracted cost savings. G is a government representative who is charged with responsibility to ensure the net social benefits associated with the project are maximised.

Attention focuses on the *quality* enhancements the contractor *may* introduce. In the particular example used in this discussion these relate to investments in human capital via training. We model these enhancements as imposing additional resource costs on the contractor²⁰. However, they raise the gross social benefits associated with the project. In the first version of the model that we present, the benefits of any quality improvements only flow to the broad community. That is, the benefits of any improvements are assumed *not* to be internalised (or captured) by the firm.

²⁰ In the original HSV model the innovations were a source of cost savings.

Two equations are defined:

$$B = B_0 + B(e)$$

$$C = C_0 + C(e)$$

where e refers to the effort involved in achieving quality enhancement. $C(e) \geq 0$;

$$B(e) \geq 0^{21}.$$

Analysis begins by considering a scenario where quality improvements (eg training investments) are *not* part of the contract agreement; that is, potential improvements can be neglected without triggering a breach of the contract relating to the construction project.

Not surprisingly, given the assumptions about the internalisation of costs but not of benefits, the model predicts that a profit-focused contractor will not introduce the quality enhancement. Such improvements add to his/her resource costs without contributing a financial benefit.

Although this is a very simple result, it does underlie the expressed rationale for specific contract provisions relating to training and other social outcomes. That is, in the absence of these provisions it is likely that investments in quality enhancements that deliver broad social benefits will not take place. The framework introduced here is also a convenient 'building block' for the remaining parts of the analysis.

The next scenario considered relates to a situation where an attempt is made to contract e (that is, efforts directed towards quality enhancements). We begin by identifying the 'first best' situation, which involves G and M selecting a level of e to maximise the net surplus from their trading relationship. The surplus can subsequently be divided between the two parties.

In the first best, G and M solve:

²¹ $B'(e) > 0$; $B''(e) < 0$

$$\max_e \{B(e) - C(e)\}$$

This has a unique solution:

$$B'(e^*) - C'(e^*) = 0$$

This constitutes a useful guiding principle for the analysis as it implies that at the social optimum the marginal social benefit ($B'(e)$) of devoting extra effort to improve the quality outcomes of a construction project must equal the marginal cost of that effort ($C'(e)$). This is a standard tenet of welfare economics.

We now consider whether negotiated outcomes from a contract that includes e will achieve this social optimum (assuming that quality enhancement and investments are fully observable). The payoff from a contract with a renegotiated price to encourage investment in quality will be, for the public agency:

$$U_G = B_0 - P_0 - P(e) + B(e)$$

The payoff for the contractor will be:

$$U_M = P_0 - C_0 + P(e) - C(e)$$

Assuming rationality, each party chooses e to maximise their respective payoffs.

For the government, this involves solving:

$$\max_e \{B(e) - P(e)\}$$

This has a unique solution:

$P'(e) = B'(e)$, implying the agency has an incentive to offer an increased contract price in proportion to the expected social benefits of the innovation.

The contractor will solve:

$$\max_e \{P(e) - C(e)\}$$

This has a unique solution:

$P'(e_m) - C'(e_m) = 0$, which has the straightforward interpretation that additional investments in quality will be undertaken by the contractor so long as the financial rewards, $P'(e_m)$, exceed the costs, $C'(e_m)$.

There are several implications from this stage of the analysis. First, the outcomes from a contract that includes provisions relating to quality enhancements will (given the satisfaction of assumptions relating to contract performance) result in positive investments in quality. However, compared with the first best outcome, a contract that includes provisions relating to quality enhancements is likely to result in the contractor *under-investing* in the enhancement. That is, unless $P'(e) = B'(e)$ ²², which implies the contractor accrues all the net benefits of the contract renegotiation, the contractor's willingness to make investments in quality will be less than optimal.

The level of competition for contractor services will affect this latter result. Specifically, higher levels of competition (due, for example, strong economic conditions) will bid up the price for any quality improvements and, thus, reduce the net surplus accruing to the government from any provisions that it does negotiate.

Extensions to this basic framework provide additional insights to the issues affecting outcomes from construction contracts that attempt to leverage training outcomes. First, following Hart et al. (1997), and still within the confines of the 'simple' model described above, we add a shift factor, θ to the function $B(e)$ in U_G . This factor, ranging in value from 0 to 1 can be used to represent variables that affect the relationship between a given level of investment in training and the social benefits derived. Where θ is small the training actions of the contractor have little significance for social outcomes. Thus, the importance or value of special provisions to regulate training will be small and G's willingness to offer a higher price to secure these investments should be small, *ceteris paribus*. Conversely, when θ is close to unity the importance of ensuring high investment levels will be relatively large. In a training context, θ is likely to be related positively to the size of the project in relation to the local economy.

²² Note that first best requires $B'(e^*) - C'(e^*) = 0$, whereas, M will operate where $P'(e^*) - C'(e^*) = 0$

It is also useful to add a shift factor, Φ , to the function $C(e)$ in U_M , with $0 < \Phi < 1$ to represent variables affecting the relationship between given levels of training effort and the additional costs incurred by the contractor. Where Φ is small the barriers to achieving particular levels of investment in training will be relatively small, reducing the contract price required to achieve high investment levels, *ceteris paribus*. In a training context, Φ is likely to be inversely related firm size (given that large firms often already employ apprentices, for example, and thus may not need additional training investments to meet contract provisions). On the other hand, Φ is likely to be positively related to labour market shortages and prevailing, administrated training wages and administrative costs.

As noted in the literature review, Bennett and Iossa (2005) provide an extension of the HSV model that is useful in the context of questions about the factors affecting investments in training. Specifically, Bennett and Iossa address the HSV assumption that all the benefits of a quality innovation are external, in the sense that $B(e)$ accrues to members of the community *other than* the contractor. In a situation where the quality innovation relates to training of workers, this is akin to an assumption that the skills imparted through training are perfectly transferable (or ‘general’), rather than specific.

The Bennett and Iossa extension allows us to model a situation where the skills produced by a training program have at least some degree of specificity and/or the skills involved are general but the labour market is imperfectly competitive. In these cases, due to restrictions on the mobility of trained workers, the firm is able to capture (or internalise) at least some of the benefits of a training investment.

To accomplish this a shift factor λ can be added to $B(e)$ and the combined term $\lambda B(e)$ inserted in the equation for U_M . This also requires that a term $(1 - \lambda)$ is added to the equation for U_G . λ will represent the share of the benefits of the training investment internalised by the firm. If it has a positive value the residual value of the contract accruing to the firm increases with the quality innovation. This increases the likelihood that the firm will independently make training investments, reducing the need for special provisions to regulate quality and/or the need for increases in contract prices to achieve

these innovations. In a labour market context, λ is likely to be related to the nature (general or specific) of the training involved with particular construction projects; the level of competition in the local labour market (competition increases the mobility of workers, reducing possible returns to the firm from investments in general skills); and uncertainty about future product market conditions.

Another important extension of the HSV framework reflects the likely importance of transaction and/or monitoring costs in contracts that incorporate provisions relating to quality innovations. In Globerman and Vining's (1996) analysis, these costs include opportunism and bargaining costs. Opportunism relates to the risks that a contract party will attempt to change the agreed terms of the contract in its favour after the initial contract has been agreed. This risk arises where the other party has a dependence on contract outcomes and limited alternatives. Opportunism contributes transaction costs associated with the design of measures aimed at mitigating its potential influence.

Bargaining costs refer to the costs involved in negotiating and re-negotiating a contract, monitoring its performance and resolving disputes. Although several of these costs are incurred after the contract has been agreed, they can be anticipated during the design of a contract. As such, these bargaining costs are likely to add to contracting costs in the *ex ante* period.

In Globerman and Vining's (1996) analysis, the magnitude of bargaining and opportunism costs will be related to task complexity (i.e. the degree of difficulty in specifying and monitoring the terms and conditions of the contract); competition in the relevant market; and asset specificity (i.e. the extent to which physical and human assets associated with a project *cannot* be secured from, or re-deployed to, other sources). They note, for example, that if task complexity is large and outside the sphere of a government agency's sphere of expertise, transaction costs are likely to be particularly large. High levels of asset specificity add to the risks of opportunistic behaviour and thus also add to transaction costs. Competition within the contract market is predicted to have the

opposite influence – acting as a deterrent to opportunistic behaviour (and, thus, lowering transaction costs).

It is possible to incorporate a factor, e.g. $z(e)$, into the U_G function to represent the additional transaction costs to the government associated with requiring quality investments by the successful tenderer. The influence of this factor on contract outcomes will be that the optimal level of investment, e^* , will fall; as will the maximum price, $P(e)$, the government agency will be prepared to pay for promised quality innovations. In turn, this will restrict the amount of investment accomplished through the contract option.

From the above discussion of transaction costs, it is also logical to apply a shift factor, ∂ , ($0 < \partial < 1$) to reflect differences in the significance of $z(e)$ associated with task complexity, competition and asset specificity. In a training context, ∂ is likely to be related positively to the size and length of the project and the complexity of the training task.

A further extension of the HSV framework, making use of the insights of stakeholder theory, allows for the likelihood that G (the government) comprises a number of entities, potentially with different perceptions of the net social benefits of particular quality investments. For example, in the case of provisions relating to training, one agency is typically responsible for sponsoring the policy and identifying desired levels of training activities, whilst another agency is typically responsible for designing and implementing construction contracts. This framework predicts conflict between agencies and potential inefficiencies *if* the government department responsible for sponsoring the policy doesn't take into account potential transaction costs. Specifically, under these circumstances, the sponsoring agency would be expecting a higher level of investment than is socially efficient. The magnitude of these effects would depend on factors relating to the power and urgency of this particular stakeholder. The analysis presented here implies that social efficiency is improved through the full representation of transaction costs in considerations of the net social benefits of prescribed quality innovations.

Data Collection and Analysis

As noted in the introduction to this report, the complexity of leveraged social policies demanded that a range of data collection and analysis methods be employed for this project. The availability of data on tender bids both before and after the implementation of key training policies in WA meant that quantitative approaches to the measurement of some potential costs of the policies were possible. For the other policies, and for training and employment policies in Queensland, analysis relied on qualitative data, collected in interviews from key industry participants. The following sub-sections outline, for each type of policy/jurisdiction, the data used, the methods employed in the analysis and the results derived.

The Training Policies of the Western Australian Government: A Quantitative Analysis

The Western Australian Department of Housing and Work's Tender Registration System (TRS) was implemented in 1996 as a way of recording the tender details of all WA government construction projects. As such it contains records on the details of each public construction project undertaken since 1996, including: a description of the works to be undertaken; the location of the planned work; and the estimated pre-tender value of the project. The database also contains information on the number of tender documents requested for each project, together with details on each of the tenders received and the winning bid.

This study made use of the TRS project and tender details on government non-residential construction contracts awarded between 1997 and 2006 to study the possible impacts of the Building Skills and Priority Start policies on bid numbers and prices. As was noted in the theoretical discussion, the implementation of policies such as these could be anticipated to reduce the willingness of contractors to bid for public construction prices and/or raise the 'supply price' for these projects. This 'supply-side' effect is an important

component of the economic cost of the policies that should be considered in any evaluation of the efficacy of the policy measures.

In total, we analysed 2519 government non-residential construction contracts awarded between 1997²³ and 2006. 11525 tender bids were submitted for these contracts. As such, our analysis is based on a sample that includes almost 100% of the relevant contracts and bids included in the TRS over the seven year period. Only a very small number of non-residential construction contracts were excluded from the analysis due to incomplete recording of their details²⁴.

To facilitate analysis, this study made some alterations to the TRS records, in addition to ‘cleaning the data’ to remove incomplete or nonsensical entries (such as contracts with a zero dollar value). First, the postcode information in the TRS was recoded to identify the regional location of the projects. This recoding was based on the Western Australian Department of Land Information’s regional development regions: Gascoyne, Goldfields-Esperance, Great Southern, Kimberley, Mid West, Peel, Pilbara, South West, Wheatbelt, and Perth. Second, pre-qualification financial levels were imputed from pre-tender values, to minimise the data gaps associated with these levels. We also added to the data set information on a range of construction activity and cost pressures within the State. Together, this data provides a comprehensive overview of construction activity in Western Australia over the 1997-2006 period.

Background: Construction Activity and Bid Numbers on Public Construction Contracts

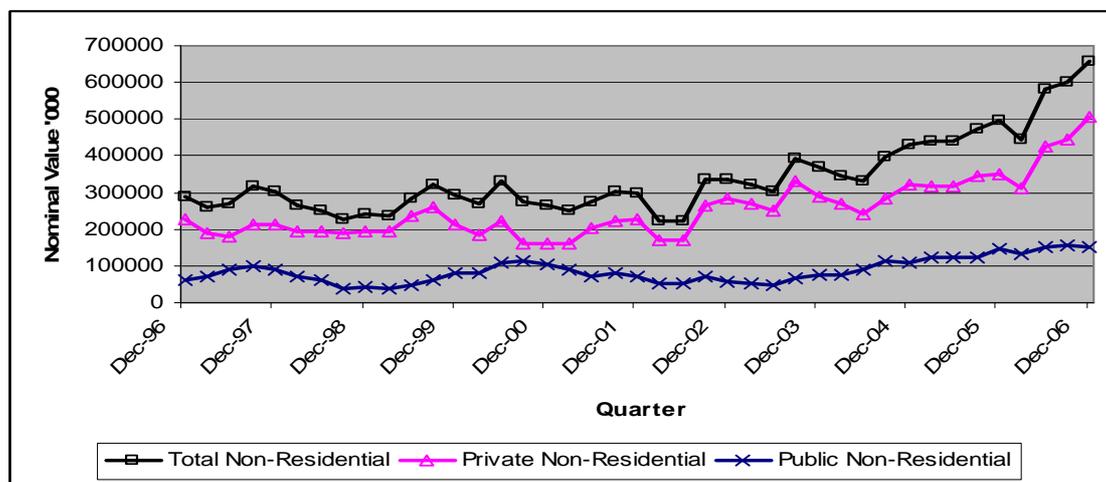
We can start by noting that the total value of non-residential construction activity completed in Western Australia in 2006 was \$2280m. As the following figure shows private sector work dominates this total, comprising close to 75% of all non-residential construction work in 2006. Public sector activity in 2006 was valued at \$592m.

²³ Although the TRS was initiated in 2006, records in this year were incomplete and, thus, excluded from our investigation

²⁴ The omission of records on location and tender value appeared to be due to record keeping errors and is, thus, unlikely to be a source of systematic bias in the results of our analysis.

The information in Figure 1 also shows the strong upward trend in non-residential construction work in the State from the beginning of 2002, with this increase being dominated by private sector activity. Between December 2001 and December 2006 the total nominal value of private sector work increased by 120.6%. This compared to a 3.1% increase between December 1996 and December 2001.

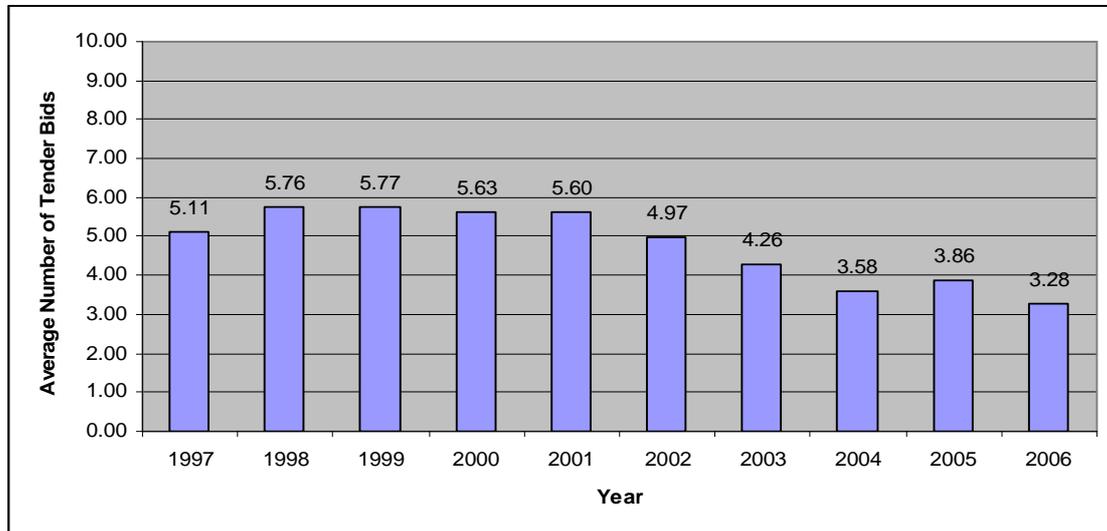
Figure 1: Total, Private, and Public Nominal Values for Non-Residential Construction Work done in Western Australia by Quarter, December 1996 to December 2006.



Source: Australia Bureau Statistics, 8752.0 Building Activity, Australia, Table 45. Value of Building Work by Sector, Western Australia: Original. (Series Identifications: A2057722C, A2034996K, and A2046139R).

It is not particularly surprising that the 1996-2007 period was also characterised by a sharp fall in the average number of tender bids for WA government non-residential construction contracts. As is shown in the following diagram, between 1997 and 2006 the average number of bids on these contracts fell from 5.1 to 3.3 bids, or by 35.3%. A large part of this change was concentrated in the years from 2001.

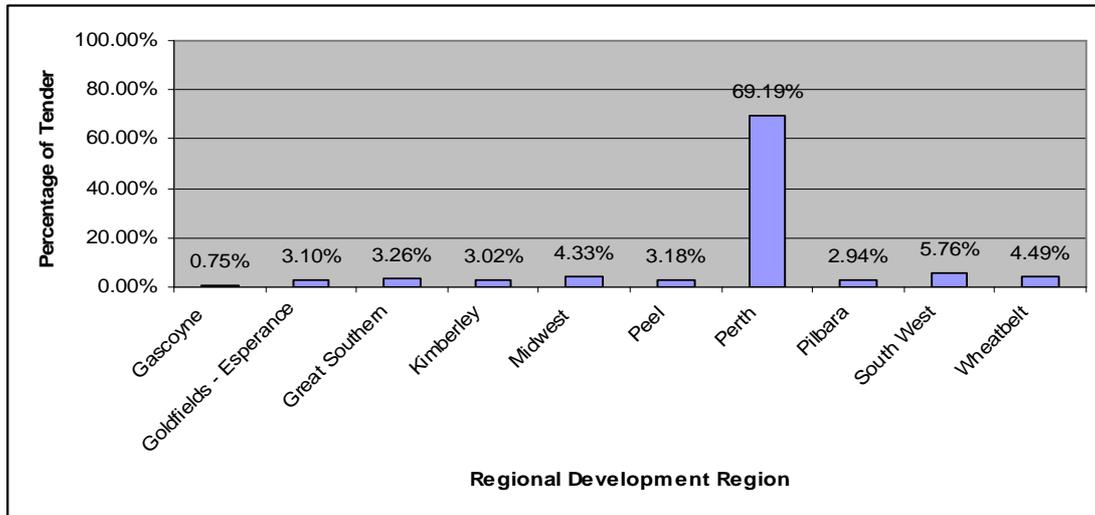
Figure 2: Average Number of Tender Bids on WA Public, Non-Residential Construction Contracts by Year, 1997 to 2006



Western Australia is a large and geographically diverse state and, as such, any analysis of construction activity needs to take into account sizeable regional differences in costs of production. In the study period, the large majority (70%) of public construction contracts related to work undertaken in the Perth region²⁵. A further 9% of contracts were located in the South West and Peel regions, both of which are relatively close to Perth. As is shown in Figure 3, the remaining contracts were spread across a range of remote regions.

²⁵ This study matched the postcode information contained in the TRS with the WA Department of Land Information's regional development regions²⁵ to identify the regional distribution of contracts

Figure 3: WA Public Non-Residential Construction Awarded Contracts by Regional Development Region, 1997 to 2006 (per cent)



The decrease in bid numbers observed in the state as a whole also occurred in the two groups of regions identified here. In the regions located relatively close to Perth – that is, the Perth, Peel, and South West regional development regions – the average number of tender bids declined by 42% between 2001 and 2006. In the remaining, more remote regions, this decline was 35%. These patterns are outlined in the following figures.

Figure 4: The Average Number of Tender Bids for the Perth, Peel, and South West Regional Development Regions by Year, 1997 to 2006.

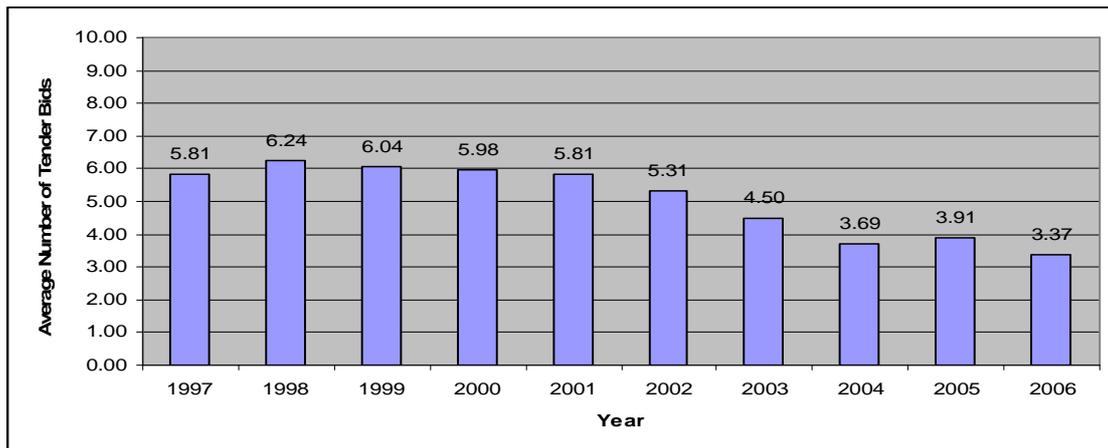
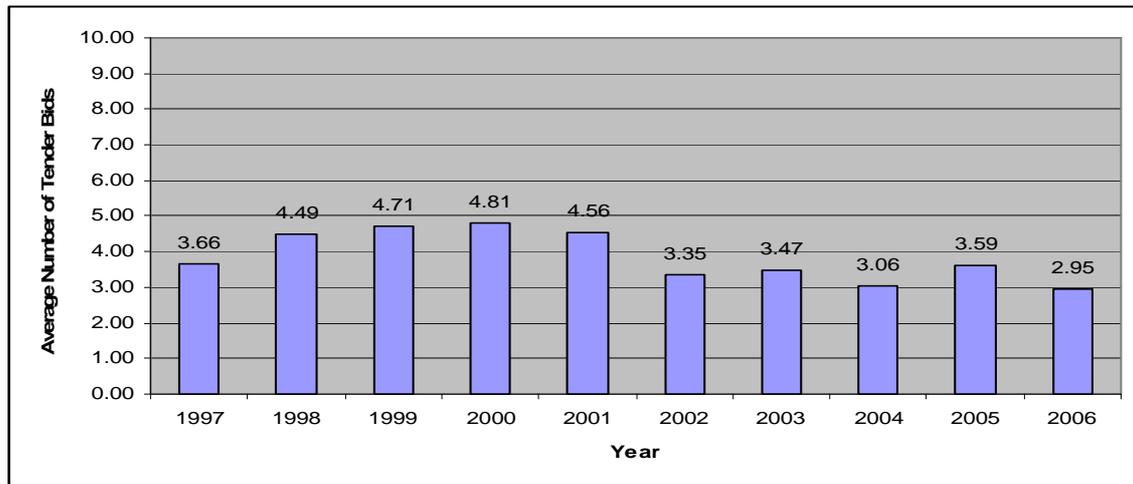
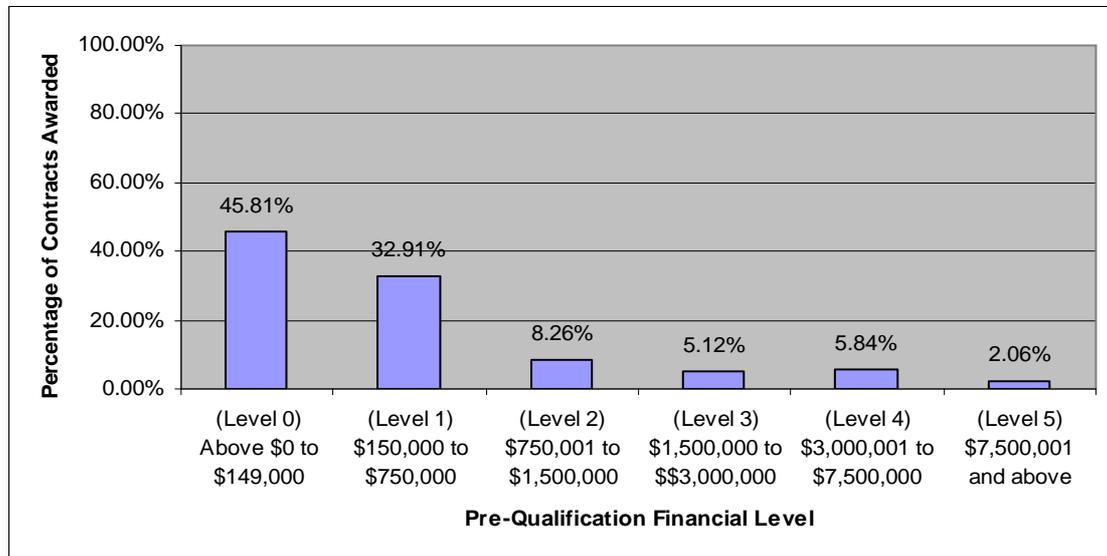


Figure 5: The Average Number of Tender Bids for All Regional Development Regions other than Perth, Peel, and the South West Regions by Year, 1997 to 2006.



Another source of diversity in public non-residential construction work in WA is the size of the work undertaken. Projects range from small additions to local schools to large infrastructure projects. This diversity is especially important in the context of the current investigation because the training policies being studied only apply to relatively large projects. As was noted in the previous section, the Priority Access Policy applies only to contracts with a pre-tender value of \$150,000 or more; the Building Skills Policy to contracts with a pre-tender value of more than \$2 million. 1019 contracts (or 54.2% of all awarded contracts) have been subject to the Priority Access Policy since its introduction in August 1999. The Building Skills Policy has applied to 160 contracts (or 11.8% of all awarded contracts) since its introduction in October 2002. Further information on the size distribution of awarded contracts is contained in Figure 6.

Figure 6: WA Public Non-Residential Construction Contracts by Pre-Qualification Financial Level, 1997 to 2006 (per cent).

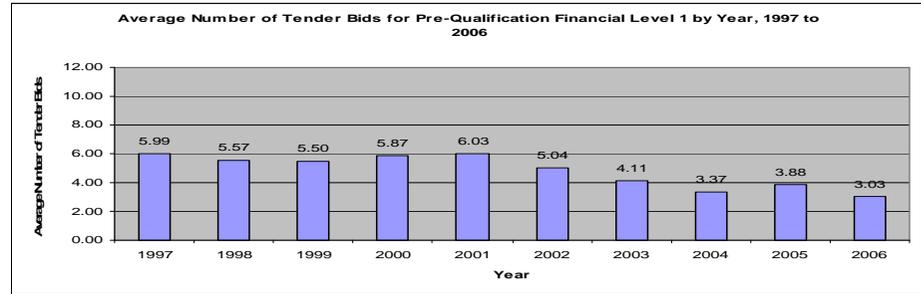
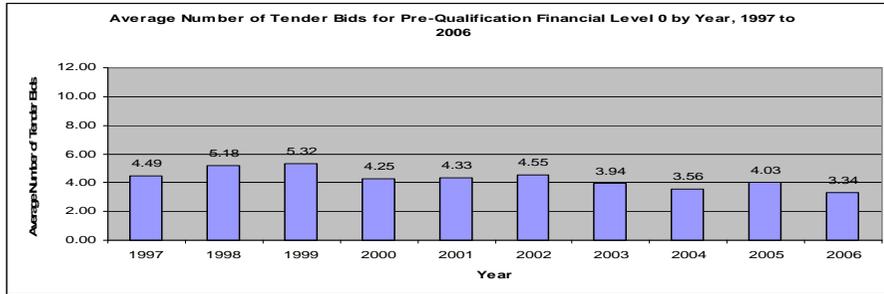


The downward trend in tender bid numbers was common to each of pre-qualification levels associated with the contracts, but it was largest in magnitude in the Level 2-4 (mid-range) categories. This pattern is summarised in the following table and set of graphs.

Table 3: Percentage Decline in the Average Number of Tender Bids by Pre-Qualification Financial Level 2001-2006.

Pre-Qualification Financial Level	Percentage Decline in the Average Number of Tender Bids
(Level 0) - \$1 to \$149,000	22.9%
(Level 1) - \$150,000 to \$750,000	50.2%
(Level 2) - \$750,001 to \$1,500,000	56.4%
(Level 3) - \$1,500,001 to \$3,000,000	60.4%
(Level 4) - \$3,000,001 to \$7,500,000	56.4%
(Level 5) - \$7,500,001 and above	26.2%

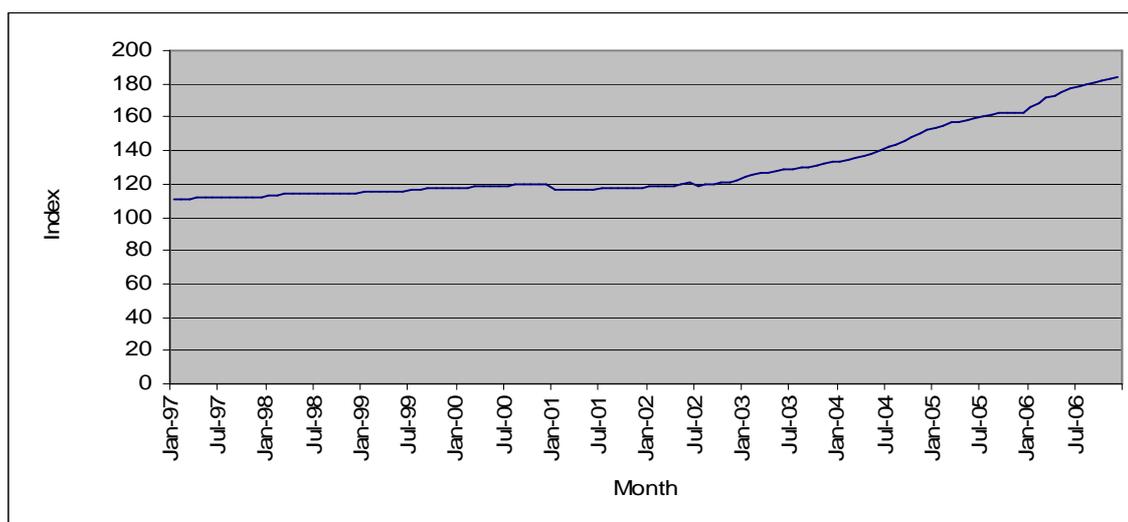
Figure 7: Tender Bids by Pre-Qualification Level



The observed trends in bid numbers are likely to have been strongly influenced by changes in factors affecting the availability of other construction work and the cost/availability of resources. The years since 2002 have been associated with substantial growth in WA's resource and construction industries and this has produced large pressures on available labour and materials.

A number of related statistical measures convey information on these pressures. For example, as is shown in the following chart, based on the DHW's Building Cost Index²⁶, there was only a slight rise in building costs (by around 8%) from the beginning of 1997 up to mid 2002 but these then increased rapidly (by around 55%) to the end of 2006.

Figure 8: Building Cost Index for the Perth Region by Month, January 1997 to December 2006.



Source: The Western Australian Department of Housing and Works. Works and Building Construction Building Cost Index – Perth, File BB 576/87, Personal communication DHW, May 30 2007

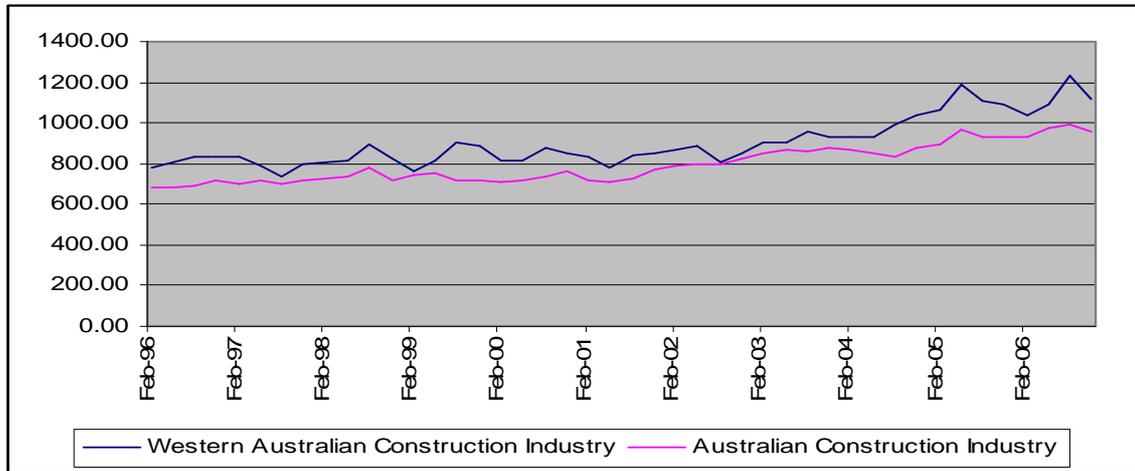
The building cost index is derived from measures of labour and materials costs and reflects the costs of accomplishing standard types of public and private sector construction projects²⁷. The influence of labour costs on the index is apparent in the similar pattern of change in construction industry wages over the study period. As is shown in Figure 9, these remained relatively stable between February 1996 and

²⁶ for the Perth region includes both labour and material costs.

²⁷ For example, it reports the current cost of a typical school and prison.

August 2002 (increasing by only 1.6%). However, they rose rapidly from August 2002 onwards, increasing by 40.8% by November 2006 (ABS, 2006a).

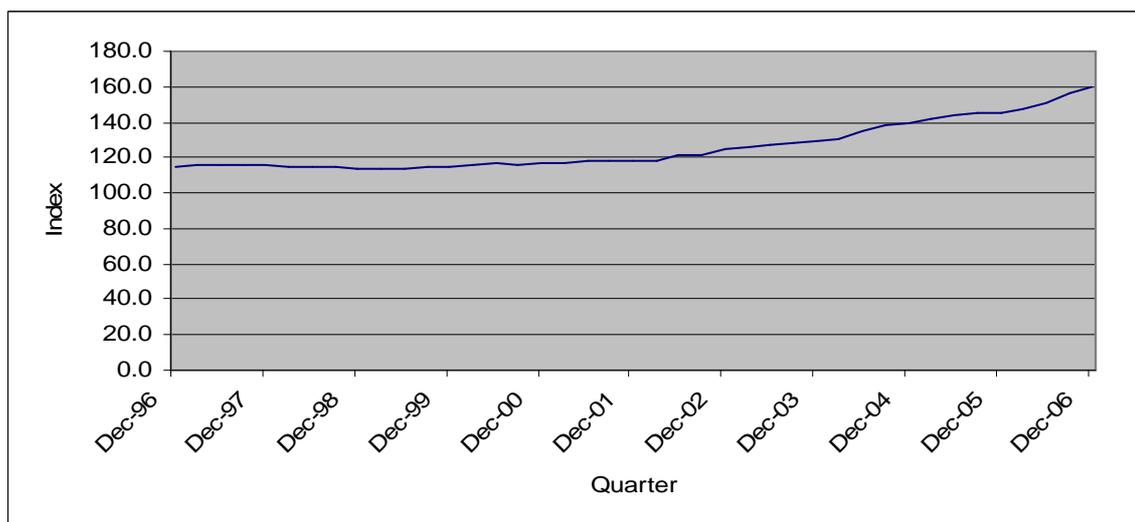
Figure 9: Construction Industry Average Weekly Earnings for Western Australia and Australia by Quarter, February 1996 - November 2006.



Source: Australian Bureau of Statistics, Cat. No. 9941.0, Average Weekly Earnings by Industry Division (Construction) and Areas of WA, Total Employee Earnings, Original Persons Data, February 1996 - November 2006.

Materials costs rose by only 6.1% between December 1996 and the September 2002 but rose by 23.6% between the September 2002 and December 2006. This is described in the following figure.

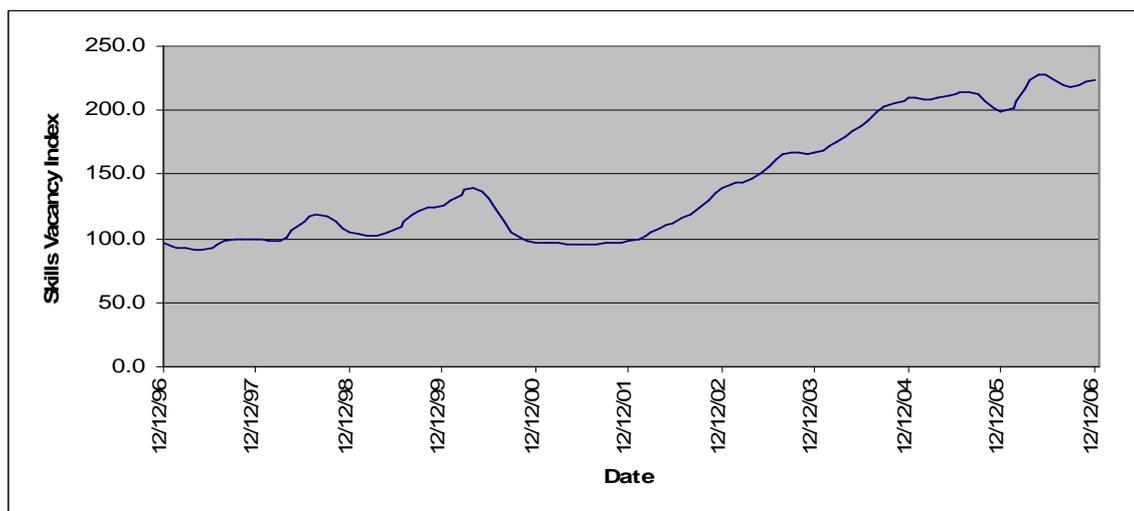
Figure 10: Materials Cost Index for Buildings other than Housing for the Perth Region by Quarter, December 1997 to December 2006.



Source: Australian Bureau of Statistics, Cat. No. 6427.0 Producer Price Indexes, Australia, Table 48. Materials used in Building Other Than House Building Special Series, Index Numbers – Perth.

Labour shortages emerged in the state post 2002 and were an important contributor to the rising wage costs. The Department of Employment and Workplace Relations skills vacancy index (DEWR n.d.), which provides a monthly indicator of the degree of difficulty that employers have in filling vacancies in occupations or specialised skill needs, recorded a 129.5% increase between the start of 2002 and the end of 2006. This data is shown in the figure below.

Figure 11: Department of Employment and Workplace Relations' Skills Vacancy Index for Western Australia by Month, December 1996 to December 2006.



Source: <http://www.workplace.gov.au/workplace/Publications/ResearchStats/LabourMarketAnalysis/VacancyReports/>

Multi-Factor Analysis of the Effects of Building Skills and Priority Access on Bid Activity in the WA Public Construction Sector, 1997-2006

A central research question addressed in this study is whether the additional training requirements imposed as a result of the Priority Access and Building Skills policies had a *measurable and distinct* impact on bid activity for public construction contracts. That is, was there a measurable effect of these policies on bid numbers that was separate from the impacts on bid activity generated by the changing economic conditions which, as is shown in the above section, were so strongly underway in the state?

Conducting such an analysis clearly requires a multi-factor approach that is able to 'control' for the influence of the range of other factors on bid numbers (such as changes in private construction activity and costs, as well as variations in contract

region and project size) before focusing on the relationship between the implementation of the policies and bid activity.

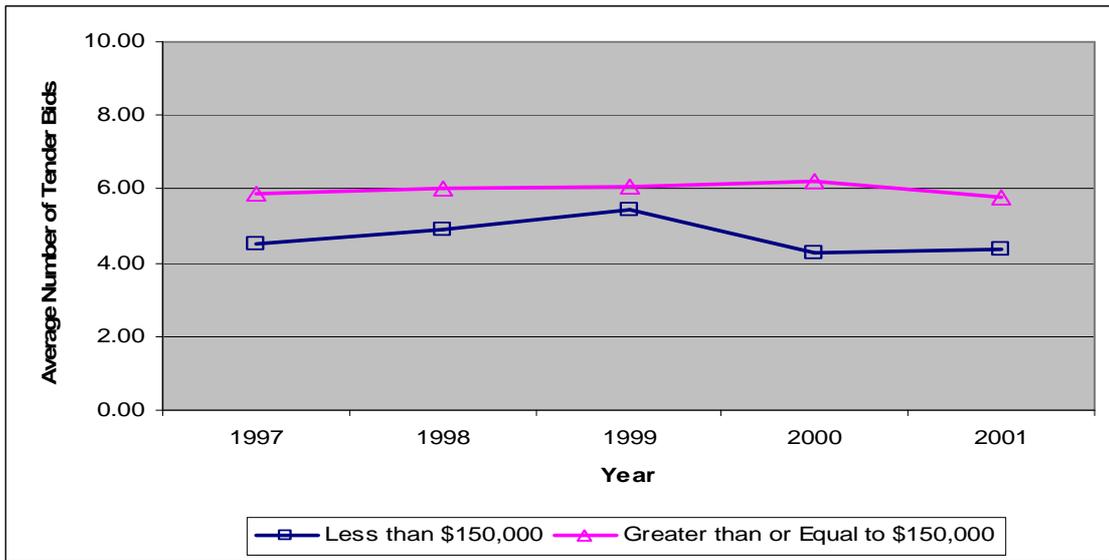
The approach adopted for this investigation is to examine variations in the number of tender bids for non-residential government construction contracts around the time of the implementation of each policy²⁸. In the case of Priority Access policy, the analysis period is August 1997 to August 2001, which encompasses the 24 months prior to and the 24 months after the implementation date of the policy. In the case of the Building Skills policy, the 48 month analysis period is October 2000 to October 2004.

The analysis focuses on differences in bid activity between the ‘market’ segments affected and unaffected by the policy. In the case of the Priority Access Policy this involves a comparison of changes in bid activity across the analysis period between a) projects with a pre-tender value of at least \$150,000 (and thus potentially affected by the policy); and b) projects with a pre-tender value of less than \$150,000 (not affected by the policy). In the case of the Building Skills Policy the two comparison groups are a) projects with a pre-tender value of more than \$2million; and b) projects with a pre-tender value of \$2 million or less. In each case we hypothesise that if the policies were affecting bid activity, activity levels would fall in relative terms in the market segment affected by the policy. Furthermore, this fall would be observed in the analysis period.

The following chart shows bid activity in the two market segments associated with the Priority Access policy over the analysis period. This data is clearly not supportive of the above hypothesis. In fact an opposite pattern is apparent: the average number of bids declined for contracts *not* subject to the Priority Access policy over the analysis period, whilst there was negligible change in the average number of bids for tenders subject to the policy.

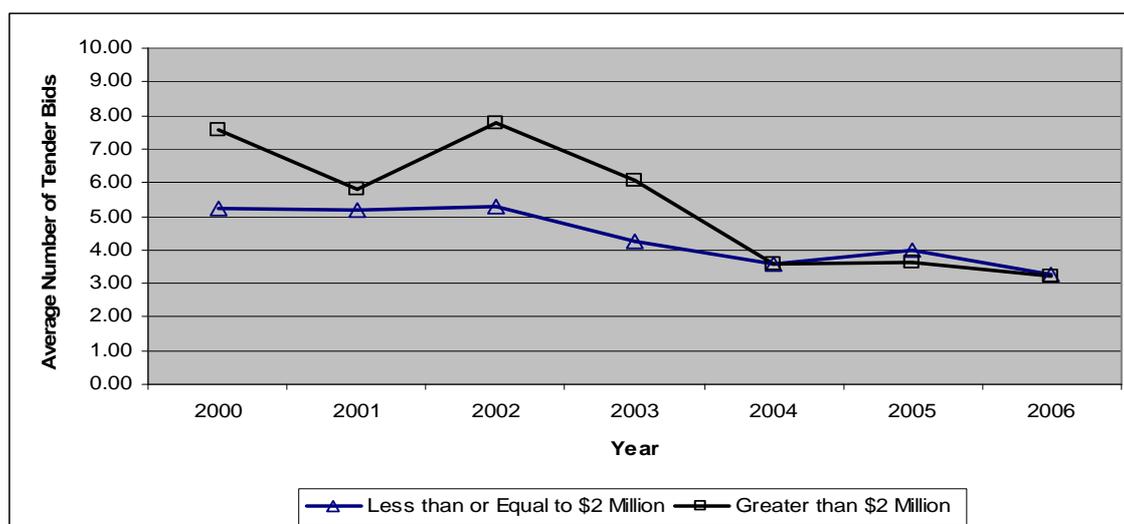
²⁸ This approach to restricting the time period allows us to focus more fully on the effects of the policy whilst allowing for the possibility of anticipatory or delayed effects

Figure 12: Average Number of Tender Bids for Contracts with a Pre-tender value < \$150,000 and Tenders with a Pre-tender value ≥ \$150,000 by Year, 1997 to 2001



The following chart provides information on changes in the average number of bids for contracts affected/not affected by the Building Skills policy between 2000 and 2004. At face value this data is more supportive of a hypothesis that the policy affected bid activity: the average number of bids for contracts subject to the policy fell at a greater rate than those not subject to the policy over the analysis period. There is also an apparent alignment between the introduction of the policy and this relative change. However, given the strength of the other influences on the construction market (as described in the previous section), there is a need for caution before reaching firm conclusions about the effects of the policy. The following section provides more definitive insights.

Figure 13: Average Number of Tender Bids for Tenders with a Pre-tender value ≤ \$2m and Tenders with a Pre-tender value > \$2m by Year, 2000 to 2006.



Econometric Strategy

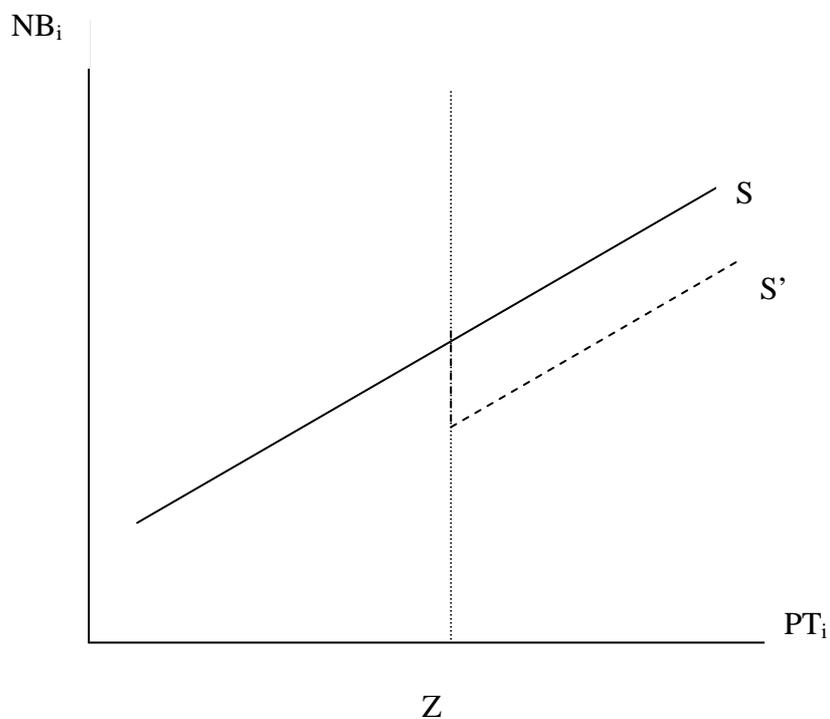
The multi-factor analysis of the relationship between bid activity and policy settings is structured into two parts, each relating to the key policy initiatives: Priority Access and Building Skills. In each part, however, the same approach is taken to the measurement of the effects of the policy. Specifically, linear (OLS) regression techniques are used to estimate the following equation, which relates to the determination of the number of bids for public construction contracts.

$$NB_i = \beta_1 + \beta_2 PD_i + \beta_3 Z_i + \beta_4 PT_i + \beta_5 RN_i + \beta_6 OF_i + \gamma_2 (Z_i \times PD_i) + \epsilon_{it}$$

NB_i , is the number of bids submitted on contract i ; PD_i is a dummy variable that is based on the date of implementation of the policy (for example, in the case of Priority Access this variable takes on a value of 1 for all contracts dated after August 1999); Z_i is a dummy variable that identifies whether the contract falls within the scope of the policy's application (in the case of Priority Access this variable is coded as '1' for all contracts with a value of \$150,000 or more); PT_i is a continuous measure that relates to the contract's pre-tender value; RN_i is a dummy variable that identifies whether the location of the project was in the Perth, South-West or Peel Regions, or in another, more remote region. OF_i is a continuous variable based on the value of the Building Cost index in the month that the bids were recorded. It is used in this model to proxy

the level of competition in the construction market²⁹. Finally, the interaction term ($Z_i * PD_i$) identifies those projects that were affected by the implementation of the policy (for example, in the case of Priority Access this variable will only take on a value of 1 for contracts with a pre-tender value of \$150,000 or more and dated after August 1999). ϵ_i is a random error term, which is assumed to be normally distributed with $E(\epsilon_i)=0$ and the var (ϵ_i)= σ^2 .

The modelled relationship can be described in the following simplified terms. First, the function S, shown in the diagram below, represents the positive relationship between the pre-tender value of the contract and the number of bids.



The other factors in the model are hypothesised to be associated with shifts in this function. For example, in more remote regions the function S could be expected to shift downwards (implying a positive coefficient on the variable RN_i in the above equation) due to the greater difficulties in accomplishing construction work in these

²⁹ As noted in the previous section, this index reflects current costs of accomplishing the types of construction projects contracted for via the TRS. A variety of measures of market conditions (such as indexes of labour availability, materials costs, etc) are available. However, testing indicated that these are strongly correlated with the Building Cost Index.

areas as compared to less remote regions. The background statistics shown in earlier parts of this report support this hypothesis. Higher building costs are likely to be associated with a downward/rightward shift in the function (implying a negative value on the coefficient on OF_i). If the introduction of a training policy has a negative effect on bid activity, its application only to projects with a $PT_i \geq Z_i$ would cause a discontinuity in S around point Z_i (as represent by the function S'). Evidence in support of this hypothesis would be a significant negative coefficient on the interactive term ($Z_i * PD_i$). The individual term PD_i controls for the possibility (seemingly remote) that there was a change in bid activity for all contracts around the time of the introduction of the policy. The individual term Z_i controls for the possibility (more likely) that there are underlying differences in the relationship between tender activity and pre-tender prices in the group of contracts 'priced' above and below the trigger value of the policy.

Results

The estimated relationships between tender bid numbers and the various explanatory variables included in the RHS of the above equation using DHW data are outlined in this section. Reflecting the above discussion, these results are presented separately for the Priority Access and Building Skills policies.

Priority Access Policy

The above equation was first estimated with reference to data on bid numbers on DHW contracts for the period August 1997 to August 2001. In this case Z_i is defined by the introduction of the Priority Access Policy in August 1999 and PD_i is defined by the policy's application to projects with a value of \$150,000 or more.

The results of this analysis are presented in Table 4 below.

Table 4: 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
Region	1.4243	0.0000
Building Cost Index	0.0720	0.3394
PD*Z	0.0216	0.9612

Notes: Log-Likelihood: 1957.8; Nobs: 789; Method: OLS

The data in Table 4 indicate that the implementation of the Priority Access Policy in August 1999 *did not* have a significant effect on competition for government non-residential construction contracts in WA. The reduction in bid numbers observed around the time of the implementation of this policy was similar in ‘market segments’ subject to the influence of the policy (i.e. contracts with a value of \$150,000 or more) and in other parts of the ‘market’. The figures in Table 4 show, rather, that during the analysis period (August 1997 to August 2001) bid numbers varied between contracts firstly due to regional factors. The average number of bids on contracts in more remote regions was 1.42 bids less than the number of bids on contracts in the Perth, South West and Peel group of regions. Bid numbers in the analysis period were also significantly affected by the value of the contract. Contracts with a value of \$150,000 or more had, on average, close to 1 additional bid per contract than those with a lower pre-tender value. A somewhat surprising result is the lack of a statistical significant relationship between the building cost index and bid numbers. The most likely explanation for this is that, as was outlined in previous sections, the period 1997 to 2001 was a period of relatively stable economic conditions. There was little variation in the building cost index over the analysis period and, thus, this was not an important source of differences in bid activity.

Building Skills Policy

The results derived from the application of the above equation to TRS data relevant to the Building Skills Policy are presented in Table 5. In this case the analysis period spans October 2000 to October 2004; Z_i is defined by the introduction of the Building Skills Policy in October 2002; and PD_i is defined by the policy’s application to projects with a value above \$2 million.

The results of this analysis are presented in Table 5 below.

Table 5: 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
Region	1.2794	0.0000
Building Cost Index	-0.0436	0.0004
PD*Z	-1.4152	0.0986

Notes: Log-Likelihood: 1873.5; Nobs: 807; Method: OLS

The data in Table 5 provide some evidence of a negative impact of the Building Skills Policy on bid activity relating to government non-residential construction contracts in WA. Bid numbers on contracts affected by the policy (i.e. above \$2 million in value and commencing after October 2002) were, on average, 1.42 bids lower than contracts not affected by the policy after 2002. However, this effect was only statistically significant at the 10% level.

A further contrast between the results in Table 5 and those in Table 4 is the significance of building costs as a source of variation in bid numbers. The figures in Table 5 indicate a strong negative relationship between the building cost index and bid numbers. The difference between the results in Table 4 and 5 is likely to derive from the relatively large rate of change in the building cost index between 2000 and 2004, as compared to 1997-2001.

A similarity between the two sets of results is the measured importance of regional factors as a source of variation in bid numbers. In Table 5 the average number of bids on contracts in more remote regions was 1.27 bids less than the number of bids on contracts in the Perth, South West and Peel region. Finally, bid numbers in the analysis period relevant to the Building Skills Policy were positively affected by the value of the contract.

Differences across Market Segments

The effects of the Building Skills Policy in the key segments of the WA public construction ‘market’ can be explored further by adding further terms, which interact the policy implementation date variable with measures of the pre-qualification level of the contractor³⁰, to the regression equation described above. The coefficients on these terms identify the different effects of the Building Skills Policy in market segments associated with the pre-qualification status of the contractors. The amended regression results are outlined in Table 6.

Table 6: Estimated Coefficients for Equation Including Market Segment Measures. Bid Numbers on Government Non-Residential Construction Contracts (Building Skills Policy), Western Australia 2000-2004.

Variable	Coefficient	Prob.
Constant	9.636244	0.0000
Policy Implementation Date (PD)	-0.426558	0.0810
Contract above trigger value (Z)	1.964689	0.2361
Pre-Qual.3	1.141072	0.0955
Pre-Qual.4	-0.045097	0.9818
Pre-Qual.5	-0.677310	0.6921
Region	1.290959	0.0000
Building Cost Index	-0.045998	0.0002
PD*Z*Pre-Qual.3	-3.350192	0.0447
PD*Pre-Qual.4	-0.930167	0.4235
PD*Pre-Qual.5	0.378037	0.5759

Notes: Log-Likelihood: -1871.4; Nobs: 807; Method: OLS

It can be noted, first, that the inclusion of the new terms did not cause the estimated role of other key variables – such as region and building costs – to change in any substantial way. The changed formulation of the model indicates that pre-qualification level is, in the main, an insignificant source of variation in bid numbers. However, the coefficients on the interaction terms are the main focus of our interest in this section. They identify whether – and to what extent – the measured effect of the introduction of the Building Skills Policy on bid numbers varied significantly between the different pre-qualification levels. For example, the coefficient on the last interaction term measures the extent to which the difference in bid numbers associated with the policy’s introduction varied between the group of projects associated with a pre-qualification level 5 and those projects with a pre-qualification level of 2 or less. The results on the interaction terms indicate, first, that the changes in bid numbers on projects associated with pre-qualification levels 4 and 5 following the introduction of

³⁰ Pre-qualification level is closely related to tender value. Thus, the tender value variable is removed from the regression equation.

the Building Skills Policy were not significantly different from the change recorded by projects unaffected by the policy. This implies that large firms were relatively unaffected by the policy's introduction. In contrast, bid numbers on projects associated with pre-qualification level 3, following the policy's introduction, are shown to be significantly lower than bid numbers on projects unaffected by the policy. This implies that small to medium sized firms were affected by the policy's introduction, and that they reduced their willingness to tender on government projects as a result.

Discussion of Quantitative Results

It is important to consider why the Building Skills Policy, but not the Priority Access Policy, had an impact on bid activity for non-residential construction contracts in WA. Bid numbers were lower on contracts affected by the Building Skills Policy following the implementation of the policy in October 2002. This effect was distinct from the influence of changes in construction costs and regional and project size factors on bid numbers. A similar effect was not apparent following the introduction of the Priority Access Policy in 1999.

A superficial assessment of the policies based on these differences might conclude that the Building Skills Policy, which requires that contractors allocate 10% of deemed labour hours to the employment of apprentices and trainees, is less desirable. The policy appears to have contributed to a lowering of competition for public construction contracts in the 48 month period surrounding its implementation. The data available to this study does not allow us to identify with certainty whether this change comprised a decreased willingness to tender for *any* public project, or a shying away from particular projects. However, both of these impacts have efficiency consequences for the public construction program, potentially contributing to higher costs and/or lower quality outcomes. Given that WA is currently under the influence of a range of economic pressures, these added costs are of particular concern. The Priority Access Policy, which required contractors to meet a number of requirements relating to employment and training activities (such as having staff with tertiary qualifications) did not appear to add to the contract price for public works.

Our interpretation of the results presented in the above section is quite different – and we conclude that the Priority Access Policy is not necessarily a superior approach to regulating training outcomes on government construction projects. We see in the results evidence that the Priority Access Policy *did not* in fact affect the training behaviour of construction companies: as the introduction of the policy had no evident impact on their willingness to bid for public projects. One possible explanation for this is that the policy did not impose high training requirements on contractors. As such, although the policy may not have affected competition for public works, it is unlikely to have achieved improved training outcomes. It is also likely to have still imposed transaction costs on contractors and, especially, the administering department. In sum, the apparent gains (via investments in training) of the policy are few whilst it was still associated with some costs. The next section, which reports the findings of a qualitative assessment of the policies will shed additional light on these costs and benefits.

Questions remain about the positive impacts of the Building Skills Policy. As already noted, the policy appears to have influenced the willingness of small to medium-sized contractors to bid for public projects. This implies that at least some of these contractors perceived that they would need to change their training behaviour to meet the new contract requirements. However, a remaining unknown is whether the contractors who remained involved in the public works ‘market’ following the policy’s introduction were those already engaged in training, or whether the policy encouraged some firms to increase their training commitments. If the former scenario is the more accurate (implying that non-training firms simply shifted to other markets), then the benefits of this policy are also likely to have been small. Rather, substantial additional contract and administrative costs are likely to have been incurred as a result of the policy’s introduction with little in the way of a net social benefit. Although the data available to this quantitative study of the effects of the policy cannot provide definitive answers to these questions, the qualitative assessment of the policy, summarised in the next section, does provide some insights.

The Training and Employment Policies of the Western Australian Government: A Qualitative Analysis

This section presents a qualitative analysis of the Western Australian government's Priority Access, Building Skills and Buy Local policies. The analysis is based on the costs and benefits as perceived by the main entities affected by these policies, which include the contracting agencies, such as the Department of Housing and Works; the sponsoring agencies, such as the Department of Education and Training; head building contractors; and subcontractors. The section adds important details on the costs and benefits of the policies and, as such, complements the quantitative materials outlined in the previous section.

Sample and Method

The sample included the key policy officers of the contracting and sponsoring agencies. It also included groups of head and subcontractors. The first group of contractors comprised companies that are *currently engaged* on public works projects. The second group comprised companies that have *ceased tendering* for public construction contracts. In the Perth region we interviewed one small, medium, and large head contractor from each group. In the non-Perth region we interviewed small, medium and large head contractors currently engaged in public construction projects. The subcontractors interviewed were drawn from both the Perth region and regions other than the Perth region, and also ranged in size from small to large.

The interviews were based on a semi-structured format, with a standard set of questions being asked of each entity, but allowing for other relevant issues to be discussed during the interview. All the interviews were conducted face-to-face and digitally recorded to ensure the accuracy of the interview transcriptions and summaries.

Costs and Benefits of the Priority Access Policy

The **costs** associated with the Priority Access Policy were generally perceived to be small, although, as could be expected, the nature of these costs varied across the entity groups.

The sponsoring agency: Department of Education and Training

The main costs to the Department of Education and Training in implementing the Priority Access Policy were the costs associated with processing the Priority Access application forms and the costs associated with monitoring the policy. In relation to these tasks and their costs, the key policy officer stated that:

“It was pretty light. Once people got their certificate and were deemed as Priority Access compliant that was it, there was no heavy monitoring. We had one person on it, working on Priority Access, so there weren’t a lot of resources put in it from our end.”

The magnitude of these particular costs could therefore be estimated as equivalent to the cost of one full-time equivalent position, presumably at a fairly junior level, for the duration of the policy.

A contracting agency: the Department of Main Roads

The administration costs imposed on the Department of Main Roads as a result of the Priority Access Policy were estimated by the policy officer we interviewed as “pretty minimal”. The Policy was perceived to be “just a registration process”, and registration could be easily achieved.

A contracting agency: The Department of Housing and Works

A number of costs were associated with the implementation of the Priority Access policy by the Department of Housing and Works. The first of these are associated with including the provisions of the policy in the Department’s tender and contract

documentation. The Department's key policy officer asserted that these costs were negligible:

“It's not hard to write things into contracts, it's very easy to write obligations into contracts”.

Further costs were related to the Department's need for additional labour to process Priority Access provisions. However, these were also perceived to be small:

“It's all very difficult to quantify it, because everything else they have to do this is just one element of it. ...In dealing with these issues we have not had to create a position and say that's all your job is to manage all these issues.”

The policy officer raised concern that the implementation of the Priority Access Policy had been associated with an increase in the tender prices on its projects. However, all of the head contractors and subcontractors that we interviewed asserted that the policy had not affected their tender pricing, although they also stated that the cost of employing apprentices, trainees and/or other staff were taken into account in both their tender pricing. The key question that remains therefore is whether the Priority Access Policy raised these costs. The material in the next sub-section (on the policy's benefits) will help answer this issue.

A related concern raised by the policy officer was that the Priority Access Policy acted as a disincentive for contractors to bid on government construction contracts. Against this, all of the head contractors and subcontractors interviewed indicated that the Priority Access policy had not affected their willingness to tender on government construction contracts. They all noted that the provisions of the policy were easy to meet and, thus, were not a barrier to their tendering for government contracts.

Head Contractors and Subcontractors

As noted in the introduction to this section, some of our participants were currently engaged in public construction contracts associated with the Priority Access Policy. They associated the policy largely with costs associated with the time spent

completing and submitting relevant paperwork. However, each these participants estimated that this time (cost) was small and insignificant.

The interviews also explored whether meeting the provisions of the policy imposed additional costs on head contractors or subcontractors. This would come about if, for example, they found it necessary to employ additional apprentices and/or trainees to comply with the policy. None of the head contractors and subcontractors currently engaged in public construction projects associated the costs of employing apprentices and/or trainees with the policy. There appeared to be two main reasons for this: In some instances the contractor had employed apprentices prior to the implementation of the policy (and, thus, was already compliant with the policy). In other instances, the contractor had a history (culture) of training (and, thus, didn't perceive that the policy was the source of its training decision).

None of the contractors that had ceased tendering on government contracts attributed this action to the introduction of the Priority Access Policy. More important reasons for the decision to cease involvement with government works included the Department of Housing and Works' pre-qualification requirements, in combination with the availability of private projects. In relation to this factor, one contractor noted that there were large administrative costs associated with the pre-qualification process, and in the current economic climate the company did not have the time or the interest in pursuing the pre-qualification process. Another contractor highlighted the large 'security deposits' required by the DHW. He asserted that if his company did have a large amount of money spare, it would not be leaving in a bank account for someone else to use in case the company went bankrupt, it would be using the money to grow the business.

The **benefits** of the Priority Access Policy clearly relate to the securing of additional training opportunities. The expressed aim of the policy is to:

“Increase the number of apprenticeship and traineeship opportunities for job seekers” (Priority Access n.d., p.3).

And to achieve this objective, the policy would need to align employers' behaviour with the objectives of the policy. However, across all the entities we surveyed, it would appear that the policy had very few impacts on the training decisions of contractors and that the benefits of the policy very small.

The sponsoring agency: Department of Education and Training

The key policy officer in the sponsoring agency commented that the benefits of the Priority Access Policy diminished over its lifetime as its provisions became more and more flexible:

“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.”

A contracting agency: The Department of Main Roads

The policy officer that we interviewed in the Department of Main Roads expressed an opinion that the policy was not very effective. He compared the policy with the process of opening a bank account, where you just need 100 points and the criteria for obtaining the 100 points were very weak. The policy was also viewed as deficient in its lack of rigorous monitoring or real enforcement. The officer's opinion was that the building and construction industry did not take the policy very seriously because the criteria were so weak. The only perceived benefit of the policy was that it was an attempt to achieve change in the training culture of the industry.

A contracting agency: The Department of Housing and Works

A similar viewpoint on the progressive 'watering down' of the Priority Access Policy was expressed by the key policy officer in the contracting agency:

“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’”.

Head Contractors and Subcontractors

All the head contractors and subcontractors that we interviewed commented that the Priority Access Policy did not affect the number of apprentices, trainees or staff the company employed. None of the interviewees had taken on new apprentices, trainees or other staff in order to comply with the policy. Some interviewees noted that two factors critically affected employment and training decisions, and neither of these were linked to policy: their knowledge and perceptions of the amount of future work that was coming up; and the continuity of that future work.

In sum, although all the interviewees had complied with the provisions of the policy, the policy had not changed the behaviour of the head contractors and subcontractors. It appears that very few new training positions were created as a result of the Priority Access Policy.

A factor that is likely to affect the benefits produced by the Priority Access Policy, or any other policy, is the level of monitoring of compliance. The key policy officer in the sponsoring agency perceived that *‘there was no heavy monitoring’* of the Priority Access Policy. From the interviews with the head contractors and subcontractors, it seems that this was common knowledge in the industry. As a consequence, it appears that some companies maintained their Priority Access status without meeting the specified obligations of the policy.

One of the interviewees noted that one company had engaged an apprentice from a group training organisation in order to get its Priority Access status, and then as soon as it was awarded its Priority Access status, it returned the apprentice to the group training organisation and never engaged in any training after that. The interviewee

also claimed that tenders had been accepted even though they had been submitted with invalid or expired Priority Access numbers.

On the basis of this limited information, it would appear that any reported benefits of the Priority Access Policy are likely to have been overstated. Compliance with the policy did not necessarily mean the creation of new positions. Furthermore, it appears that it was common knowledge that contractors could shirk on their obligations under the policy because of the low level of monitoring. In sum, and in support of the findings of the previous section, the Priority Access Policy produced small administrative costs – largely for the sponsoring agency – and, at best, only negligible benefits.

Costs and Benefits of the Building Skills Policy

The Building Skills Policy was associated with a higher level of **costs** for many of the entities we surveyed.

The sponsoring agency: The Department of Education and Training

The main costs associated with the Building Skills Policy imposed for the Western Australian Department of Education and Training were those associated with developing and evaluating the policy. Additional labour was apparently required due to the complexity of the policy and its associated relatively large administrative task. The key policy officer observed that:

“We had a second position put in when we were developing Building Skills; we created a temporary position so we had one position just managing the Priority Access program. For Building Skills we created a temporary position which went a bit longer than we thought but that was to assist in the development of the Building Skills Policy and the evaluation of that.”

From these comments it can be estimated that the cost imposed on the sponsoring agency was approximately equal to one full-time position during the development and evaluation stages of the policy.

A contracting agency: the Department of Main Roads

The policy officer we interviewed in the Department of Main Roads estimated the administration costs associated with the Building Skills Policy to be insignificant. On the other hand, he asserted that the policy had resulted in higher tender prices on the Department's projects subject to the policy. No information on the magnitude of these cost increases was provided.

A contracting agency: The Department of Housing and Works

The costs associated with the implementation of the Building Skills Policy for the Department of Housing and Work (DHW) included costs associated with developing provisions for the agency's tender and contract documents. Costs were also associated with the processing the policy's provisions. However, as was the case for Priority Access, these costs were considered to be fairly small.

As was also the case for the Department of Main Roads, concern was expressed by the DHW policy officer about the effect of Building Skills on tender bids. However, this view was not supported by the head contractors and subcontractors, who asserted that the policy had not affected their tender pricing. The contractors did, however, take training and other labour costs into account when setting their tender prices.

More evidence was available in the interview transcripts on the effects of Building Skills on competition for government contracts. One of the other head contractors that we interviewed stated that the Building Skills Policy had affected the company's willingness to tender on construction projects subject to the policy. He considered that the Building Skills' requirements placed an unnecessary administrative load on the company, and involved many administrative tasks that the company preferred not to do. In sum, for this firm, the Building Skills Policy acted as a disincentive to bid on government construction contracts. However, it is important to note that the other contractors we interviewed (including those who had stopped tendering on government contracts) asserted that that the Building Skills Policy had not affected their willingness to tender on government construction contracts.

Head Contractors

The large sized contractors interviewed asserted that they did not find it difficult to meet the provisions of the Building Skills Policy, and that the policy had not discouraged them from tendering on government construction contracts. In contrast, one medium sized contractor that was interviewed noted that the company did not tender on projects that were subject to the Building Skills Policy because the company considered the requirements of the policy to be an unnecessary administrative load on the company, and involved a lot of administrative tasks that the company preferred not to do. None of the small contractors interviewed were aware of and/or subject to the Building Skills Policy.

The two head contractors interviewed, who had worked on contracts subject to the Building Skills Policy, provided additional information on the types of costs associated with the policy. These included, primarily, costs associated with the time spent completing and submitting the associated paperwork. However, one interviewee noted that the costs associated with the policy were non-identifiable in the day-to-day administration of the company. The other interviewee noted that the tasks associated with the policy were nuisance jobs, but noted that these tasks were not a major cost. However, the interviewee did note that the company generally had to chase its subcontractors to get the information on their training hours.

The interviews with contractors also canvassed whether the Building Skills Policy created costs associated with the employment of additional apprentices and/or trainees. The head contractors that we interviewed who had projects that were subject to the policy did not perceive additional costs in this regard. One interviewee noted that the cost of training was disbursed across both its government and private contracts.

Subcontractors

The main costs to subcontractors working on government projects subject to the Building Skills Policy was the cost of keeping track of the number of hours their

apprentices spent on those projects. Interestingly, none of the subcontractors interviewed were aware of the Building Skills Policy. However, two noted that they had been required by head contractors to keep track of the hours their apprentices worked on some government projects. Hence we can deduce that they had in fact been subject to the Building Skills Policy. One of the interviewees noted that providing information on apprentice hours to a head contractor was easy to accomplish.

Another potential cost to subcontractors working on government projects subject to the Building Skills Policy was the cost of employing apprentices. In relation to this, one of the interviewees noted that the company did not employ apprentices simply in order to be able to tender for government construction contracts. Rather, apprentices were hired because of the need for tradespeople in the future. This interviewee claimed that over the last 10 or 15 years, Federal and State governments have not been promoting trades as a viable occupation for people to pursue.

In summary, the main cost for subcontractors from the implementation of the Building Skills Policy was the cost of keeping track of the hours their apprentices worked on some government projects, and from the interviews it appears that this cost was insignificant. In terms of the costs of employing apprentices, the subcontractors did not appear to directly associate these costs with the Building Skills Policy.

The **benefits** of the Building Skills Policy relate specifically to the generation of additional training opportunities. The Policy's objective is to:

“ensure an adequate supply of skilled labour for current and future needs”
(Building Skills n.d.: 3)

As was the case for the Priority Access Policy, Building Skills also relies on aligning the employment and training decisions of contractors with its specified objectives. However, as was also the case for Priority Access, strong doubts have been expressed about its success by a variety of entities.

The sponsoring agency: The Department of Education and Training

The key policy officer in the sponsoring agency was clearly of the view that the incentive structure in the Building Skills Policy had not achieved its objectives. Summarising the results of his own department's review of the policy, he stated it was only able to identify the creation of one apprenticeship!

“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.”

Further problems were identified with current approaches to measuring the benefits of the Building Skills Policy. The measurement of the number of on-site training hours did not allow a determination of whether the measured training hours were undertaken by apprentices or trainees; or if the hours were performed by new apprenticeship and /or trainee positions. Furthermore, the Building Skills Policy did not recognise the off-site training of apprentices and/or trainees:

“The Policy required that we could only count people working on the site, we could only count people or trades that were actually working on the sites, so you had your cabinetmakers and refrigeration people that didn't count, even though they were doing work for that building.”

Hence, the incentive structures in the policy did not maximise the potential benefits of the policy, and could have actually had a disincentive affect on the employment of apprentices and/or trainees by companies whose work was mainly done off-site.

A contracting agency: The Department of Main Roads

The policy officer we interviewed in the Department of Main Roads also identified few (if any) benefits from the Building Skills Policy. He asserted that there was no evidence of any real change in the training culture or in the ability of contractors to maintain apprenticeship and/or traineeship programs. He also alleged that the policy was a 'toothless tiger' because there was no evidence of any real enforcement of the policy. He proffered that the Department had had some contractors who were non-compliant with the policy, but no real action was taken against them.

Head Contractors

From the interviews conducted, it appears that the incentive structure in the Building Skills Policy did not align the behaviour of the head contractors and subcontractors with the policy objectives. One of the head contractors interviewed noted that the requirements in the Building Skills Policy did not create incentives for contractors to take on additional apprentices and/or trainees. He gave an example of a head contractor that had a number of private construction projects and a government project, and had two apprentices. It was noted the head contractor could simply move the apprentices off the private construction projects and on to the government construction project in order to meet the requirements of the Building Skills Policy. The contractor asserted that the policy was simply a number counting exercise that did not actually change the outcome.

“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.”

Subcontractors

It appears that the Building Skills Policy had no impact on the training behaviour of the subcontractors we interviewed. One subcontractor noted that the policy had not discouraged the company from training apprentices, but also noted that it had not encouraged the company to employ apprentices. He also commented that the company would not employ apprentices simply in order to get a government construction contract.

“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.”

In **summary**, the information collected in our interviews with participants in the industry that there were few benefits generated by the Building Skills Policy. The Policy was not perceived by the interviewees as a significant influence on their training decisions. Other factors – such as confidence in future projects – were much stronger influences on these decisions. However, the policy was associated with administrative costs for both the government agencies and the contractors and concerns were expressed about the ability to monitor the policy impact. There is also some evidence in the interview transcripts that administrative deterred some contractors from bidding for government contracts. To the extent that this evidence is representative of the response of a number of contractors across the State, the policy can be seen to have reduced the pool of competitors for government contracts. This constitutes another important cost of the policy. The contractors who remained interested in tendering for government contracts appear likely to be those who were already committed to training and/or were able to spread the administrative and training costs across a range of projects. Those who dropped out were either less committed to training or less able to meet the administrative and/or training costs. The *incidence* of training on government projects may have increased due to these ‘selection effects’ of the Building Skills Policy. There is no evidence in our transcript evidence that the policy altered the *level* of training investment in the State.

Costs and Benefits of the Buy Local Policy

The transcript evidence on the costs and benefits of the Buy Local Policy generally follows a similar pattern to that established in the discussion above. That is, the policy imposed small additional administrative costs but delivered few benefits. However, in contrast to some of the information presented thus far, the Buy Local Policy is perceived by some in the industry as producing substantial anti-competitive effects. Ideally, quantitative analysis – similar to that undertaken of the Priority Access Policy and the Building Skill Policy – would clarify these effects. However, at present, the Tender Registration System data base does not identify the particular zones where a project is located; nor does it accurately identify whether contractors are ‘local’. As a result, it is not possible at this time to fully assess the effects of Buy Local Policy on competition for public works contracts.

The sponsoring agency: The State Supply Commission

The costs of the construction and works component of the Buy Local Policy imposed on the State Supply Commission appear to be very insignificant. Apparently the Department perceives its main role as being in relation to goods and services contracts and it has on limited involvement in construction contracts:

“The State Supply Commission administers the Buy Local Policy on behalf of the Government. There are two components to it; there’s goods and services and there’s construction and works. Now, our main area of expertise is goods and services.... So, apart from handling any complaints that are received on the application of the Buy Local Policy in relation to works contracts, we really don’t have much input in it.”

A contracting agency: The Department of Main Roads

The policy officer that we interviewed in the Department of Main Roads estimated that the decisions on only a ‘very small’ number of the contracts it awarded were affected by the Buy Local Policy. He attributed this small impact to the size of the policy’s cap³¹ in relation to the size of the contract values.

For this participant, weighed against these very small benefits were administrative costs associated with a more complicated assessment process. Apparently, his Department has to ensure that tenderers’ claims about local status and content are legitimate. In sum, the Buy Local Policy was perceived to increase the administration costs of the Department, without producing any significant benefits.

Head Contractors

From the interviews with contractors that we conducted an impression arose of the policy having substantial anti-competitive effects. To the extent that this limited sample is representative of the relevant section of the industry, this is likely to have

³¹ A maximum ‘preference’ of \$50,000 is allowed.

raised the cost of construction projects in remote or regional areas, but may have, via the protection afforded to local firms, encouraged local employment.

One of the head contractors interviewed thought that the Buy Local Policy acted as a negative incentive for 'external' (non-local) companies to bid on government contracts in particular areas. His assessment was that non-local firms were placed at a 5% to 10% disadvantage and that this reduced the number of bids for contracts subject to the policy. His own company had stopped bidding on regional contracts subject to the Buy Local Policy because of a perception that it gave local contractors an unfair advantage.

Another head contractor that we interviewed asserted that the policy produced further inefficiencies. Specifically, he believed that local builders *should* be able to put in cheaper bid prices for local projects because they don't have to pay travel and accommodation expenses. By further reducing the competitiveness of external bidders, the policy presumably reduces the pressure on local builders to reflect these cost advantages in their tender bids.

The interviews explored whether the Buy Local Policy was also the source of administrative costs for head contractors. This was dismissed by two of the interviewees who had been subject to the policy. They asserted that the policy did not impose any costs on their companies. However, one of the interviewees noted that if a company had to setup an office in a regional area to comply with the policy, then the setup and operational costs of that office would be a significant cost.

Against these costs, there was some evidence in the transcripts that the policy was effective in its aim of promoting local employment. One of the interviewees noted that the Buy Local policy gave his company a competitive advantage over companies that were external to his local area. Presumably this translated into increased employment within the local area.

However, another interviewee alleged that the Buy Local Policy was subject to widespread rorting, with companies falsely claiming they have a business located and operating in the area. He gave the example of a company claiming they had a business

located and operating in a local area when in fact they only had a shed without any facilities. This interviewee also claimed that there is no monitoring or validation of values claimed against the Buy Local Policy. This is likely to cause the benefits of the policy to be overstated.

“We had a project that was in ... for ten or twelve houses, and a builder, I won’t give you his name, he had a so called registered office in ...and he was going to turnaround and workout of that office. That office in ... was a shed. He didn’t have anyone up there, he didn’t have a phone up there, he didn’t turnaround and have anything up there.”

It is interesting to observe the stronger reaction of contractors to the Buy Local Policy – both in their expressed perception of its anti-competitive effects, and the efforts that are undertaken to appear to comply with the policy. In contrast with the Priority Access and Building Skills Policy, it appears that Buy Local has ‘registered’ with contractors and is affecting behaviour and outcomes. In this sense (and on the basis of the very limited information assembled thus far), the policy could be judged as having greater success in achieving its specified objectives. However, against this, it is important to weigh the cost impacts of the reduction in competition for construction projects. It is also important to consider the waste of resources associated with attempts to comply with the policy and the monitoring of this compliance.

Costs and Benefits of the Aboriginal Enterprise & Employment Tendering Preference Policy

This Policy also appears to have produced very few benefits in terms of affecting the outcome of tenders that included bids from indigenous enterprises. From the data provided in a personal communication on the 23/11/2007 by a policy officer at the Department of Housing and Works, the policy has only affected the awarding of one contract out of seventy (or 1.43% of contracts that included bids from indigenous enterprises).

The Training and Employment Policies of the Queensland Government: A Qualitative Analysis

This section presents a costs and benefits analysis of the Queensland government's *10% Training Policy*, the *Indigenous Employment for Queensland Government Building and Civil Construction Projects Policy*, and the *Local Industry Policy*. The analysis is based on the costs and benefits as perceived by the main entities affected by these policies. These include sponsoring agencies, such as the Department of Education, Training and the Arts (DETA), the Department of Employment and Industrial Relations (DEIR) and the Department of State Development; contracting agencies, such as the Department of Public Works and the Department of Main Roads; and head building contractors and subcontractors.

Sample and Method

The evaluation of the costs and benefits of the various Queensland policies relies on qualitative data primarily because of the absence of reliable quantitative information. Although the DETA has a comprehensive data base for recording public construction contracts, it does not pre-date the introduction of the above policies. As such, it cannot be used to evaluate the effects of the introduction of the policies.

The sample of head contractors interviewed was based on their size and location; with one small, medium, and large head contractor being selected from the Brisbane region and one small, medium, and large head contractor being selected from a region other than the Brisbane region. The subcontractors interviewed were drawn from both the Brisbane region and regions other than the Brisbane region, and also ranged in size from small to large.

The interviews were based on a semi-structured format, with a standard set of questions being asked for each entity group, but allowing for other relevant issues to be discussed during the interview. All the interviews were conducted face-to-face and

digitally recorded to ensure the accuracy of the interview transcriptions and summaries.

Costs and Benefits of the 10% Training Policy

The **costs** associated with the 10% Training Policy appear to be of a similar magnitude and scope to those experienced in WA with the Building Skills Policy. That is, the size of the costs appears to be relatively small and relate primarily to incremental administrative costs.

The sponsoring agency: Department of Education, Training and Arts (DETA).

The main costs to the DETA from the implementation of the 10% Training Policy are the costs associated with developing a database to record relevant information and the costs associated with the staff resources allocated to the policy. In relation to these costs, the Department's key policy officer noted that the database now automates a lot of the day-to-day tasks associated with the policy. Thus, ongoing staff costs associated with monitoring the policy are relatively small:

“You’ve one staff member dedicated one hundred percent of the time to ten percent and monitoring the flow of reports....That’s not to say we don’t use our regional staff on an ad-hoc basis. So it’s hard to quantify how many people are there, but roughly two people full-time for ten percent, to monitor the whole lot.”

This policy officer also expressed an opinion that the policy had negligible impact on the number of bids for government construction projects. He observed that the group of contractors subject to the 10% Training Policy has tended to remain relatively stable and apparently unaffected by the policy's requirements.

A contracting agency: The Department of Public Works

The main costs that the Department of Public Works attributes to the 10% Training Policy are the staff costs associated with the implementation of the policy and these are considered to be relatively small. The policy officer that we interviewed

commented that the 10% Training Policy has not necessitated the creation of a full-time position with the Department. Rather it has been associated with small, additional administrative tasks for existing employees. The following extract from a section of the interview that explored the staff costs associated with the policy illustrates this point.

Policy Officer: *“[It’s] very difficult to boil that down to full-time equivalents because it’s just a very small part of the whole process.”*

Interviewer: *“I suppose it’s just part of the contract process.”*

Policy Officer: *“There is no-one devoted to; it’s not really a full-time position devoted to the administration of this policy; there will be small parts of the people’s duties that I have mentioned like the PQC registrar, superintendents and their reps....”*

Interviewer: *“So just in very general terms, do you think it would pose a large burden or a very small burden or a mentionable burden on the additional processing?”*

Policy Officer: *“It’s a pretty small burden....”*

A contracting agency: The Department of Main Roads

A similar assessment of the implementation costs of the 10% Training Policy emerged in the discussions with representatives from the Department of Main Roads. Staff costs were identified as the main category of costs and were seen to derive, first, from the requirement to include the policy provisions in its tender documents. The Department is also required to communicate to contractors a threat to terminate their pre-qualification status if they are identified by DETA as non-compliant. However, apparently, it has never got to the stage where a contractor has had its pre-qualification status terminated.

The assessment of the policy officer we interviewed was that these tasks only created “very minimal” additional demands on the Department’s staff resources.

Head Contractors and Subcontractors

The head contractors and subcontractors that we interviewed typically associated the 10% Training Policy with the minimal additional costs caused by tasks involving the completion of paperwork on training undertaken. The small estimate of costs

appeared to derive mainly from the fact that a large proportion of the contractors that we interviewed already had a culture of training apprentices and, thus, did not associate the cost of training apprentices with the policy: the policy had not caused them to alter their training behaviour, only to record their training activities. In this sense the policy was not associated with a reduced willingness to bid on government construction contracts and was unlikely to have produced higher bid prices.

However, there were a small number of contractors in our sample who had not previously employed apprentices and they did associate the policy with costs associated with the employment apprentices:

Contractor: *“It can be difficult at times to actually reach the target that is set.”*

Interviewer: *“What is the main difficulty?”*

Contractor: *“I think the industry having the apprentices on board. Basically, just getting the number of hours up through apprentices, and I’m not quite sure, myself, whether that is a function of that there is not enough apprentices or there are not enough apprentices being taken on by subcontractors.”*

Interviewer: *“So some of the subcontractors you employ don’t have apprentices?”*

Contractor: *“Yes, that’s right.”*

These difficulties are likely to contribute to some contractors avoiding bidding for public construction contracts with implications for contract prices and range of choice. However, all the contractors interviewed asserted that the 10% Training Policy had *not* affected their willingness to tender on government construction contracts. Furthermore, most of the contractors in our study asserted that the policy had not directly affected their tender pricing, as the cost of employing apprentices was not worked out on a project by project basis.

The **benefits** of the 10% for Training Policy were typically perceived by our interviewees as deriving from gains in training numbers. However, the precise role or impact of the policy was often difficult to identify.

The sponsoring agency: DETA

The policy officer we interviewed perceived wide-ranging benefits flowing from training investment to industry, contractors, and taxpayers. Benefit cited for industry and contractors included an increase in the number of skilled workers and a sustainable workforce. Taxpayers/community benefits included lower infrastructure costs due to reduced risks of skill shortages. However, the policy officer noted that the 10% Training Policy did not necessarily drive these outcomes.

The more specific benefits of the 10% Training Policy identified by the policy officer included its effect on contractors' awareness of their need to provide training opportunities on government projects. He noted that the policy was not just about creating training opportunities on government projects, but was also about creating a training culture within the industry, and further noted that the policy was supported by all the peak organisations within the building and construction industry in Queensland.

In general, his assessment of the effectiveness of the 10% Training Policy was positive, although precise benefits were hard to quantify:

“I think it’s fairly successful. How you gauge that, once again, I think it becomes problematic in that 10% is but one of many strategies for the building and construction industry. So, which one contributes the most? You’d have to say how do you do that? You’ve got 10%, you’ve got the building and construction industry training fund, and you’ve got the group training program.

A contracting agency: The Department of Public Works

A similar perspective on the benefits of the 10% Training Policy was apparent in the comments of the policy officer we interviewed at the Department of Public Works. That is, the policy was perceived to have had a positive impact on training outcomes, however, the precise contribution of the policy was difficult to identify. The following is an extract from part of the interview that probed the benefits of the policy.

Policy Officer: *“I can only quote back at you the objectives of training opportunities for apprentices, trainees, cadets and existing workers but obviously a lot of other parties benefit from that including ourselves.”*

Interviewer: *“Do you think that a few of the Departments benefit from that Policy?”*

Policy Officer: *“Yeah I suspect that we do in terms of its overall aims....to improve skills development and training in the industry. Whether I could quote you anything on thatit’s very subjective from that point of view.”*

A contracting agency: The Department of Main Roads

The interview with a policy officer in the Department of Main Roads produced a similar theme. In this case the opinion expressed was that employees received a benefit from being trained; that contractors received benefits from having trained employees; and that industry received benefits from the increase in the number of skilled workers in the industry. However, it was also commented that while the policy may have increased the number of tradespersons, it had not focused on the quality of those tradespersons.

Head Contractors and Subcontractors

Within the group of head contractors and subcontractors that we interviewed, opinions on the benefits of the 10% Training Policy varied according with the head contractors/subcontractors general attitude towards training. The head contractors and subcontractors who already committed to employing apprentices identified no impacts of the 10% Training Policy on apprentices/trainee numbers. As noted above, many of these firms already had a culture of training and, as such, the policy neither acted as an incentive nor disincentive to employ apprentices. In this sense, the 10% Training Policy was seen by many head contractors and subcontractors as having no benefits.

These interviewees made a number of observations about the key determinants of their training decisions that are useful to briefly consider. They emphasised that apprentices were employed on the basis of expectations of future conditions in the building industry. Some contractors also noted that the building industry was a

competitive industry to operate in, and consequently, the decision to take on an apprentice was a commercial decision based on whether or not the company could afford it.

Another factor that seemed to influence the training decision was the contractors' expectations of the companies' future human resources requirements and their ability to fill those requirements. Concerns were expressed about the current skills shortage and the perceived current and future impact of an aging labour force within the building and construction industry. These concerns appeared to be motivating investments in training, both to address a shortage of tradespersons, but also to secure a source of personnel able to move into supervisory and project management roles. The hiring of an apprentice was perceived to offer the opportunity to identify apprentices with above average ability who could be groomed for supervisory or project management roles.

Costs and Benefits of the Indigenous Employment for Queensland Government Building and Civil Construction Projects Policy ('Indigenous Employment Policy')

This Policy appears to be currently generating relatively high administrative and training **costs**, largely due to its relative short history.

The sponsoring agency: The Department of Employment and Industrial Relations

The main costs associated with the Indigenous Employment Policy for the Department of Employment and Industrial Relations (DEIR) are those associated with managing and coordinating the policy, and the costs associated with processing reports. These appear to be larger than many of the other Policies we surveyed. In relation to the number of staff resources allocated to the policy, the key policy officer from DEIR that we interviewed observed that:

“I'm more full-time than most. Within our own Government department there are six IETM's [Indigenous Employment Training Managers] and two are down here so that's about eight and there's someone else, we've got a

Memorandum of Understanding at the moment with the civil and construction industry, who's trying to help us out a little bit, so about 10 perhaps.”

However, the policy officer also noted that none of these positions worked full-time on the Indigenous Employment Policy. Furthermore, when the policy was first introduced, very few staff resources were allocated to its implementation, with the Indigenous Employment Training Managers only being employed in the last three to four years.

The contracting agency: The Department of Public Works

The main costs to the Department of Public Works associated with the Indigenous Employment Policy are those associated with the employment of staff resources in the implementation of the policy. In relation to these costs, the key policy officer that we interviewed observed that they were small and primarily due to ‘teething problems’ associated with the introduction/development of a new policy:

“It’s still a small burden. It’s probably not, as I said, as slick as the 10% now, I mean we are probably having to put more effort into making it work and again it’s still not a huge burden. I mean it wouldn’t take up too many hours of people’s life but it is a little bit more resource intensive because of it’s immaturity and the way it’s set up....”

Head Contractors and Subcontractors

From the interviews conducted, it appears that one of the costs imposed on the head contractors and/or subcontractors from the implementation of the Indigenous Employment Policy derives from an initial lower productivity of the unskilled indigenous labour employed as a result of the policy. One contractor stated that:

“There’s a disbenefit in taking an untrained indigenous person on, with no process to train them because what effectively you’re getting is 50% or less productivity.”

However, he also noted that the costs from the lower in productivity can be reduced through training:

“Whereas on the ... thing, there’s the benefit of saying if I can get these guys trained up, particularly if I factored in some loss of productivity because I know these guys are really green and I can overcome that and actually get some productivity, then there’s a benefit.”

The attitude of head contractors and/or subcontractors to the employment of indigenous workers was identified by a representative from Construction Skills Queensland as a further factor affecting the costs (and benefits) of the policy. This is reflected in the following exchange with the interviewer:

Representative: *“You had people coming in who were contractors and paying 20% lip-service to the 20% and sitting them under a tree.”*

Interviewer: *“So not actually doing any training, just employing them but not actually doing anything?”*

Representative: *“That’s it yeah. And that didn’t work either. They said “well they wouldn’t come back after the second week, and I said “well, if you were sitting under a tree for two weeks would you come back?”*

The willingness of indigenous communities to participate in the policy also appears, from our transcript evidence, to affect the policy’s costs. It appears that some communities are very willing to participate whilst others have been less than enthusiastic. One interviewee noted that the costs involved in coordinating resources and indigenous labour were high in communities that were less than enthusiastic about the policy.

As was the case for the 10% Training Policy, there appears to be little in the way of quantitative measures of the **benefits** of the Indigenous Employment Policy. Most of

the participants in our study supported the policy's aims but few were able to point to tangible benefits. Concerns were also raised about the possible transient nature of the employment and training opportunities created by the policy.

The sponsoring agency: The Department of Employment and Industrial Relations

The policy officer that we interviewed at DEIR attributed the lack of data on the policy effects to the lack of resources initially allocated to the policy. The Department was thus only able to provide information of job creation for the first half of 2006 (although the policy has been in place since 2000), and it was only able to identify immediate, as opposed to on-going, employment benefits. In a personal communication, the policy officer stated that:

“Available data from January 2006 to 30 June 2006 indicates that 410 jobs were created through the IEP (20% Policy) on 23 building construction projects and 43 civil construction projects. It is expected that this figure would be higher if all agencies strengthened the reporting compliance obligations in their contracts with successful tenderers.”

“I can't really give statistics and data on the long term employment outcomes; I don't capture that and it's very hard to get someone to even report on that but I can see people are being utilised and from anecdotal stuff I can start seeing some capacity building and enterprises being used at the end of the day and some entrepreneurial stuff happening slowly.”

A contracting agency: The Department of Public Works

The problem of lack of evidence/reporting on the policy's impact was also highlighted by the key policy officer we interviewed in the Department of Public Works:

“I think because of its lack of reporting, it is very difficult to say how effective it's been.”

Head Contractors and Subcontractors

Several of the head contractors and subcontractors that we interviewed identified benefits from the Indigenous Employment Policy but highlighted problems associated with its focus only on short term employment creation. They perceived that the benefits of the policy disappeared with the completion of a government construction project, with this result being due, in large part to the lack of economic activity in remote Indigenous communities.

One of the contractors stated that:

“There have been some great positive outcomes. If we can go into a community and you’ve got eighteen, nineteen, twenty year old indigenous kids that tend to sit around the park and there is nothing for them to do. All of a sudden, having a reason to get up and come to work, even if it is only for six hours a day, look, that’s a great outcome. Not necessarily for the indigenous community themselves, but for that individual, all of a sudden they’ve got some purpose. What is the downside is when the project is finished? All of a sudden that kid’s back to sitting in the park, going now all of a sudden ‘I’ve got no self-esteem, again’.”

On a positive note, one contractor commented that they had taken on some young indigenous people as apprentices, who had worked on government construction projects covered by the policy. However, he also noted that this meant that they had had to leave their remote communities.

Costs and Benefits of the Local Industry Policy

The Local Industry Policy applies not only to Queensland government building and construction projects, but also to the procurement of goods and services in other industries such as manufacturing. As such, the costs and benefits discussed in this section apply to all industries covered by the policy.

As has been the case with most of the policies surveyed in this report, the Local Industry Policy appears to have generated small additional administrative costs and some concerns about anti-competitive effects.

The sponsoring agency: The Department of State Development

The implementation of the Local Industry Policy imposed a number of costs on the Department of State Development. In relation to the staff resources allocated to the policy, the policy officer that we interviewed estimated that within the Department, there was probably the time of ½ a full-time position allocated to the day-to-day implementation of the policy. In terms of the staff resources in the Industry Capability Network, ICN, he noted that there was initially one full-time person, but there is now probably in the order of 3 to 3½ people. Hence, between the Department and the ICN there are approximately four full-time positions associated with the day-to-day implementation of the Local Industry Policy.

The implementation of the Local Industry Policy also generated costs associated with the development of the implementation guidelines for the policy. The policy officer noted that whilst the policy document had specific outcomes in it, the Department did not have any direction in terms of implementing the policy. The development of these guidelines apparently required the input of staff resources primarily from the Department of State Development and the Department of Public Works. Apparently the development required six meetings and, thus, in total, represented a relatively small additional cost.

The policy officer that we interviewed asserted that a weakness of the policy, which could have imposed additional costs on the agencies that were subject to it, was its universal nature. That is, the policy did not take into account the need for or appropriateness of the policy in particular circumstances:

“If you are putting up a \$5 million school out in Longreach or somewhere like that, it’s going to be all Bessablock and it’s all going to be local.... So do we really want to go chasing that? And the answer is no, because it was putting an imposition on agencies to do something that wasn’t going to make a difference. And in developing the guidelines for implementing the policy, we developed a terminology in terms of generic projects, and a generic project

was defined as one were it was going to be 90% local content, anyway, and we were really not interested in them.”

He noted that the policy guidelines had to be modified to ensure that agencies were not going to be put through a bureaucratic process that was not going to have any impact (benefit). Hence, the design of the implementation guidelines ensured that the costs imposed by the policy were minimized because the guidelines excluded projects that, by their nature, already consisted of mainly local content.

The policy officer also noted that if changes to the Local Industry Policy, which were currently before the Queensland government Cabinet, were approved, additional costs would be incurred. Specifically, the local committee would have to be re-established. Also, significant support would be expected from the Department of Public Works in accomplishing any required re-drafting of policy documents. The policy officer estimated that these additional tasks would require the contribution of a key person from each of the agencies impacted by the policy. He estimated that a ¼ of a full-time position over a 12 month period would be associated with the high-level implementation of the policy, as distinct from the day-to-day implementation of the policy.

A contracting agency: The Department of Public Works

The main costs imposed on the Department of Public Works from the implementation of the Local Industry Policy are the costs associated with preparing the Local Industry Participation Plans. The policy officer that we interviewed from the Department expressed a reluctance to estimate these costs because most of the Local Industry Participation Plans were produced in the Department's Project Services Unit. However, he did note that the Department did not have any staff dedicated to working only on the requirements of the Local Industry Policy because the tasks associated with the policy had been widely disseminated throughout the Department.

Although the above direct staff costs for the Department appear to be low, it apparently paid the Industry Capability Network to develop some of its Local Industry Participation Plans. The policy officer estimated that the cost of these plans was

between \$1500 and \$3000. Hence, based on the policy applying only to projects with a value greater than \$5 million, it appears that, at a maximum, the Local Industry Policy imposes costs on the Department equivalent to 0.06% of the total project cost.

A further potential cost of the Local Industry Policy to the DPW is a reduction in competition for its projects. However, the policy officer we interviewed expressed a view that these effects were negligible. He observed that under the Department's prequalification system, which covers both consultants and building contractors, the way in which the Department defines '*local*' is in a geographical context, i.e. radial from where a project is located, and importantly the definition of '*local*' is also based on the existence of a competitive pool of tenderers. Thus, for example, if there are enough suppliers within the Cairns' area to form a competitive pool, then the Cairns' area would be defined as local, and the tenders would not have to be advertised outside the Cairns area. However, if there weren't enough tendered to form a competitive pool the boundaries of the local area would be expanded. Indeed, the policy officer asserted that if a hospital was being built in Cairns then the definition of local may encompass the whole of Australia because you may not get a competitive pool of building contractors to tender on the construction of that project in Queensland. In sum it appears that the flexibility in the definition of the term '*local*' ensures that the requirements of the policy are implemented without affecting the competitive nature of the bidding process.

A range of **benefits** stemming from the Local Industry Policy were identified by the policy officers we interviewed.

The Department of State Development

The policy officer in the DSD thought that his Department's key client base was the prime beneficiaries. Benefits for the project proponent (the government agency) were also identified, on the basis that the more work that can be done locally the more the overall lifecycle costs of a project would apparently be reduced.

The policy officer did not identify significant impacts for the building and construction industry as many of these already have a high (90% plus) local content.

However, he did link the policy to “changing the culture”; of encouraging purchasers to think ‘why I should get something from off-shore if there is something local’.

The policy officer also identified a positive role for the policy in addressing the marketing problem confronting SMEs. Specifically, the policy helps to promote the services of these firms to architects, and these were viewed by the officer as being the key players in the whole system.

In terms of quantifying the success of the Local Industry Policy, the policy officer noted that as of 6 months ago the claimed successes of the policy were in excess of \$2 billion. That is, the policy was attributed a role in ensuring the supply of \$2 billion ‘*contestable packages*’ from local as opposed to other on-shore or off-shore suppliers. However, it must be noted that this value applied to all industries covered by the policy, not just the building and construction industry.

In relation to estimating the employment benefits from the policy, the policy officer referred to an ICN employment multiplier, which apparently attributes 13 jobs to each million dollars of additional local contracts. Using this in combination with the \$2 billion of additional contracts referred to above results in a very large (26,000) employment impact. Again, these estimates apply to all industries affected by the policy, not just the construction and building industries.

A contracting agency: The Department of Public Works

The policy officer from the Department of Public Works provided a more conservative assessment of the benefits the Local Industry Policy. He noted that the 90% local industry criteria rule applied to most government building and construction projects. As a result, the policy only had a distinct effect on the largest projects:

“The reality is that [it is] a small number of big projects where the rubber really hits the road...where there is concern to ensure that particular parts of those projects, which may represent a fair value in terms of dollars... that the local suppliers and manufactures and so-on have the opportunity to get involved.”

The flexibility involved in the implementation of the local industry policy meant that some of the increased purchasing costs, which can result from a strictly applied policy (see, for example, Martin, Hartley and Cox 1999) are avoided.

The Provision of Public Art as a Percentage of Capital Works Contracts: A Theoretical Analysis

This section of the report focuses on the specific outcome of the provision of public art as a percentage of the total construction contract cost – what is typically termed ‘percent for art’, although in Queensland this is referred to as Art Built-In³². Despite the differences in nomenclature, both ‘Percent for Art’ and Art Built-In policies involved the allocation of a percentage of the total construction cost to the provision of public art. The term ‘percent for art’, is used herein to explore the general notion of the allocation of a percentage of building contracts to public art works. When specific policies are referred to, these are capitalised (e.g. Percent for Art). The section begins by re-capping the theoretical framework developed for this project and by applying this to the particular circumstances of the Percent for Art schemes. Relevant literature from the specific schemes are also included in this section.

As was noted earlier in the report, embedding of social outcomes in public works procurement contracts raises a number of challenges, as it adds to the complexity of the deliverables for a given contract and percent for art is no exception to this rule. Adding a requirement to produce functional, public artworks to the specification of contracts for the construction of public buildings is an innovative but complex policy instrument. Firstly, the specification of the artwork is difficult as perceptions of the quality and style of the artwork are not easy to distil from the ‘public’. It is argued ‘good art’ is difficult to achieve contractually beforehand (McCarthy 2006) due to different perceptions between stakeholders about what ‘good art’ looks like. Even after completion, considerable controversy can surround a particular piece of art (Heartney 2005), and this can result in ongoing expense to improve or remove the artwork (Conner, Brockway and Henning 1994). The difficulty in specification leads to what Globerman and Vining (1996) describe as task complexity. Another element which exacerbates the complexity of contracts is the specificity of the asset (Globerman and Vining 1996). Where the asset is highly specific to a particular locality, as is the case with percent for art (Fleming and Goldman 2005), this can

³² The policy has recently been reviewed and the new policy is now called *art+place* which emphasises the impact that public art can have upon public spaces. As this policy is new, and no completed projects were available for evaluation, the Art Built In policy has been evaluated here.

greatly increase potential bargaining costs and risks, as the asset cannot be easily relocated or removed. The final issue which adds to the complexity of embedding public art in public works procurement contracts relates to the presence of significant externalities, whereby the main beneficiaries of public art are community members, not the immediate contract participants. These aspects are expanded on in the rest of this sub-section, following an introduction to the concept of public art.

What is public art?

Public art is aimed at the general community and is designed for open access viewing rather than viewing in galleries (Miles 1997; Fleming and Goldman 2005; Hein 2006). Public art exists in different contexts and mediums which include traditional art, sculpture and installations as well as visual technological art pieces (Lacy 1995). Public art is typically installed in public space and public buildings (Armajani 2004). It is this very public, and often non-optional, viewing of public art which is a key distinction compared to private art which people choose to see. The classic example of this is that of a person who chooses to enter an art gallery and view the art on display there, as opposed to the person who enters a public building for another purpose, but is exposed to the art on display in that location (Fleming and Goldman 2005). It is the propensity for art to challenge and critique the status quo, which presents a particular challenge for public art works, which clashes with the role of public space as an open community space that is free from confronting imagery³³ (Levine 2002). The visibility of public art thus creates difficulties due to its ‘inescapability’ (Sharp, Pollock and Paddison 2005).

Various funding mechanisms exist for the procurement of public art. The main approaches to the funding of public art are either through direct funding, in the form of tenders, subsidies, grants, and the various percent for art schemes, or to indirect funding, where government provides incentives or tax benefits for individuals and firms which subsequently invest in public art (Strom and Wyszomirski 2004). This

³³ It is this propensity for public art to confront and provoke, which can prove to be a major difficulty for government funding of public art, a point which shall be returned to later.

report examines percent for art programs as specific funding mechanism for public art.³⁴

Percent for art policies that require artworks to be included as part of the contractual arrangements for the construction of public buildings are prevalent in many countries of the world and form a significant part of funding for the visual arts (Hall and Roberston 2001). Buenders (2007, 49) notes that ‘percent of art’ policies in most countries in the West require that a certain percentage of the construction costs be spent on public, functional art in or outside a public building, and that these policies “were all about changing the environment – and the citizens themselves – for the better”. As with the other public policies under examination in this report, the inclusion of functional art is part of the contractual arrangement for the procurement of public works by government. Thus, percent for art policies are explicitly concerned with achieving multiple social outcomes through the procurement of public works. A theoretical perspective on achieving these outcomes through public works contracts is discussed next.

Perspectives on Percent for Art from Economic Theory

As noted in earlier sections, the work of Globerman and Vining (1996) provides a useful framework for examining procurement contracts, particularly their concepts of task complexity, contestability and asset specificity which have particular applicability to the delivery of multi-outcomes through the percent for art process, which is embedded in public works contracts. These concepts, together with a discussion of how social outcomes are achieved through the allocation of a percentage of public works contracts for public art, are discussed below.

Task complexity

According to Globerman and Vining (1996), task complexity increases with the difficulty in specifying and measuring the quality of a particular service or product. For public art the specification and measurement of ‘good art’ is exceedingly difficult, as there can often be a difference of opinion between artists, government and

³⁴ It is important to distinguish between the various funding mechanisms for public art, as different funding mechanisms (e.g. funding from a single cash pool) may introduce different organisational dynamics which in turn may affect the outcomes of the policy.

community as to what constitutes 'good art'. The difference of opinion as to what is 'good' or 'poor' art takes a number of forms:

- Public art that is viewed by artists as bland, or user friendly art (McCarthy 2006). The limitation here is that stakeholder bargaining sessions embedded in the procurement of Percent for Art process, tend to result in art that is more palatable to the majority of the public and is therefore less confronting or objectionable (Hein 2006), and, to artists, less like art.
- A second difference of opinion is public art which is viewed by the community as objectionable (McCarthy 2006). Here the artist produces art without taking into consideration the needs, desires, or views of the community. It is when public art is objected to by its intended audience, that governments have the most difficulty, particularly as it was paid for by public funds (Brooks 2001). Many authors have argued that the best way to overcome this potential detrimental outcome, is to engage representatives of the community in the decision making process early and throughout the process of creating the public art (Lidman and Bisesi 2005).
- A third difference has been termed the 'commoditisation of art' (Miles 1997), where art is viewed as a commodity as opposed to meaningful expression of the artist or local community. The commoditisation of art involves artwork that does not hold any meaning for the local community and is art for art's sake, rather than public art.
- A fourth difference is where public art as a replication of official aims of the public sector (McCarthy 2006), and not necessarily of the community it is placed within. Examples of this might be art whose purpose is to further the objectives of a given government, which meant that it is government art, or public sector art, rather than public art. Finally,
- The last difference is where the art has multiple interpretations. The multiple interpretations may result in difficulty in reading and understanding public art (Hein 1996), or to a polarisation of the public perceptions on a particular piece of art.

Summarising these differing views then, Brecknock (1992, 6–7) argues that

...the big question with regard to true Public Art is how to achieve a blend between high standards of artistic merit while at the same time developing public ownership of the work. The challenge is to find ways of providing mechanisms for community consultation and participation in decision making process. Without doubt this is one of the most complex issues facing the government agencies; they are caught between a rock and a hard place.

Percent for Art as a policy attempts to address this difficulty as the art work is procured as a percentage of a larger suite of public works, which means that the procurement of the artwork often involves the inclusion of a large range of stakeholders – the owners of the building, the architect, the department of public works who are managing the construction process, together with end users of the building (Department of Culture and the Arts 2003). It is this "partnership in public procurement" (Erridge and Greer 2002) which is held to enhance trust and other positive externalities, important elements which shall be returned to at a later point.

One of the potential sources of difficulties in engaging multiple parties to decision making process in Percent for Art projects, however, occurs when there are differing goals between artists, government and the public who are the end beneficiaries of any piece of public art (McCarthy 2006). Difficulties in this relationship emerge as the various stakeholders have different goals and these goals are in conflict (Trimarchi 2003, 373). The end outcome of a given percent for art project is also typically quite difficult to specify contractually, due to potential differences of opinion among those who are involved in the process (Brecknock 1992, 6–7). In this sense, the outcomes of public art projects are considered highly complex, as the specific outcome cannot be predetermined, and in Globerman and Vining's 1996) analysis this complexity raises bargaining costs and risks. This may undermine the efficiency of percent for art schemes.

Information Asymmetry

Another difficulty noted in public-agent theory is that any procurement, including the procurement of public art, can involve information asymmetry (Trimarachi 2003), as

differing parties have different information about relevant aspects of the contract under negotiation. The withholding of this information can result in significant bargaining costs (Globerman and Vining 1996). In percent for art projects, these information problems are typically compounded by the relatively large number of parties involved in the development of the art work. Parties include the artist, who is contracted to provide the art work; the art coordinator or curator, who provides expert advice on the planning and delivery of percent for art; community representatives – who provide specific information about the site, including information on the locality’s history and inhabitants; the architect – who has to accommodate the percent for art into the overall project, and the public works coordinator who has overall supervision of the construction process (Department of the Arts 1990).

However, weighed against these contracting complexities are a number of other considerations. First, many percent for art schemes aim to promote an open dialogue between artists and the community members (Lidman and Bisesi 2005). That is, percent for art schemes aim, in part, to maximise the number of participants and should, therefore, be evaluated, in part, against this objective. Fleming and Goldman (2005) argue additionally that the involvement of multiple individuals in the decision making process improves the quality of the art work (Fleming and Goldman 2005). Supporting this, a number of authors have identified that the inclusion of community via percent for art schemes helps reduce the risk of ‘plop art’ or ‘plonk art’, that is, artwork that is neither integrated to the building nor into the culture of the community, and is therefore derided by the community it was meant to benefit (Conner, Brockway and Henning 1994; Heartney 2005; Anderson 1998). Adams (1997) asserts further that community participation within the commissioning process of public art provides benefits for the community members. Specifically, the experience of being part of the development of public art may provide the opportunity for community members to develop “their capabilities as active citizens in shaping the environment in the future” (Adams 1997, 237).

In summary, whilst Globerman and Vining (1996) argue that when there are multiple individuals involved in the delivery of a project, there is an opportunity for one or other party to take advantage of the information asymmetries that inevitably arise. Against this, engagement with the community, the artist, and government is

considered essential to ensure that the art is relevant to the local community and thus is considered good art. Indeed the provision of information by the wider stakeholders enables the delivery of public art which is acceptable to the community in which it is located, thereby addressing the task complexity noted above. The successful resolution of this dilemma requires a high level of trust in order for the various parties to work effectively (Erridge and Greer 2002). The challenge here is how to provide appropriate incentive mechanisms which reduce information asymmetry and improve social outcomes (Mazza 2003). Giving stakeholders the opportunity to engage in the process of art work selection, and providing information which ‘shapes’ the final piece of public art work, in turn results in the delivery of a piece of public art which is acceptable to these stakeholders.

Asset specificity

Percent for art potentially adds further complexity to the bargaining of public construction contracts due to the high level of site specificity of public art. Unlike private art, public art is typically restricted to a single physical location. This lack of mobility adds to the risks associated with contracting the art work. That is, there is little to no ability to disinvest in an investment in a percent for art project. However, against this, it can also be said that the unique local characteristics of a particular public art project maximises community involvement in the commissioning process, and a strong relationship is able to develop between the context of the building, environment, and the artwork (Fleming and Goldman 2005). The strong relationship enables the public artwork to take into account the site’s symbolic, social and political meanings to ensure the site-specificity of the artwork (Deutsche 1998). In this way, public art will work with the ‘social content’ of the community (Armajani 2004, 70).

Contestability

Limits to the contestability of the ‘market’ for Percent for Art projects also adds to the potential costs and risks of these schemes. As was outlined in earlier sections, contestability refers to the ability of new market participants to compete effectively for contracts. It is a key component of market competition, which, of course, is commonly linked to market prices and efficiency.

Generally, there is very little evidence of a shortage of artists. However, the number of artists with the business and other skills needed to compete effectively for public art contracts in the initial stages of contracts may be relatively small and this may contribute costs and risks. Likewise, if the selection pool of suitable artists was limited by design (i.e. a low number of artists are permitted to tender for artworks in the first place) or by default (i.e. a large number of artists are ‘on the books’ but only a select few are selected from this pool repetitively), then contestability would also be quite low. Therefore the specific design of percent for art schemes may be critical in ensuring that a sufficient pool of potential artists is available, and that a diverse range of artists are commissioned to supply works of public art.

Externalities

Globerman and Vining (1996) argue that the presence of externalities in contract outcomes is yet another source of complexity in government contracts. This issue is particularly relevant to percent for art schemes because the primary benefits derived from this scheme are, in fact, external benefits. That is, the benefits of public art, in the main, accrue to (and are intended for) community members who are not included directly in the negotiation of the building contract (Frey 1999)³⁵. However, as is outlined in the paragraph below, consideration of external benefits contribute a highly positive perspective on percent for art schemes.

Phillips (2004) suggests that the key external benefits of public art projects include improvement in the amenity and aesthetics of a community. As a major proponent of public art, Robbins (1963) argues that a key external benefit is the cultural development of communities – who would not otherwise have access to public works of art. Specifically he argued that the beneficiaries of public art provision:

are not restricted to those immediately prepared to pay cash
but diffuse themselves to the benefit of much wider sections
of the community in much the same way as the benefits of the

³⁵ Some economists have argued that there is no such thing as an externality for the arts, and therefore there is no need for government to support the arts (Grampp 1989), although this view is not shared by a majority of economist (Frey 1999).

apparatus of public hygiene or of a well-planned urban landscape (Robbins 1963, 59)

The external benefits of public art derived from the literature, have been grouped under six category headings: amenity; artist benefits; building benefits; community benefits; economic benefits; and social psychological benefits.

Amenity

Amenity is one of the main beneficial outcomes from public art, as public art is argued to improve the visual appeal or amenity of buildings. Amenity includes aesthetic and decorative benefits, the benefits obtained from reduced vandalism, and also benefits from increased public ownership. As any building can take on a drab and dull form, Percent for Art aims to improve the amenity of the building so that it is 'charming, sociable inspired and provides a decorative richness' (Gopnik 2005, 11). As Robbins (1963, 55) noted "why should public buildings be the only buildings to be unadorned?" Public artwork is able to enhance the visual quality of the building, community and place through providing aesthetic and decorative features to the building (Adams 1997; Miles 1997, 113). Integration of artwork into the use and design of the public buildings or space can aid in the enhancement of public buildings and spaces, and also the physical environment (Eccles 2004). Public art is also argued to be useful in maintaining the appeal of the public spaces through alleviating graffiti and vandalism (Hall and Robertson 2001). Public art is able to reduce building wear and tear and the level of building vandalism through the increase of building pride and ownership (Adams 1997, Lally 1998; Sharp et al. 2005). Thus, public art is held to improve the amenity of buildings, which improves their appeal, aesthetics, and quality and can lead to reduced wear and tear and vandalism.

Public art can also provide benefits to the public building itself beyond pure aesthetics. Public artwork has been argued to benefit buildings by enhancing the purpose for which the building was built. For example, artwork can be used to promote health benefits within hospitals or education outcomes with schools (Taylor 2002). Secondly, the public artwork has also been argued to assist with the depoliticisation and de-institutionalisation of public buildings (Roberts and Marsh 1995; McCarthy 2006). Public art incorporated into buildings has been stated to reduce the

harshness of past architecture to create a more pleasant and user friendly environment (McCarthy 2006), which enhanced productivity of its inhabitants. Thus public art has a utilitarian value which can enhance the purpose of the buildings in which they are located.

One of the more apparent benefits achieved from schemes that fund public art is the economic benefit for artists. Through percent for art projects, artists are contracted to design and deliver artwork. Apart from the immediate financial benefits which accrue from such activities, artists also stand to gain from skill development and also future employment opportunities (Kins 1998; Sharp et al. 2005). Artist skill development is a broad category that encompasses interpersonal skills, communication skills, and artistic skills, and business skills. Interpersonal skills are able to be developed through the experience of working in collaborative project teams, which can involve the artist working with the architects, construction teams and clients (Taylor 2002).

Communication skills are also able to be gained through the artist working across disciplines for example with architects and engineers (Hein 2006). Business skills are derived from having to tender for new businesses and operate at a scale of other small business enterprises.

Another espoused benefit of public art that it can provide memorial, historical, and education benefits to the community. Memorial benefits arise from the artwork being able to act as a reminder of past events or memorialise significant historical events (Hein 1996; Hein 2006; Eccles 2004, 12). The artwork can also provide community education and other benefits by providing a focal point for community history (Phillips 1995; McCarthy 2006)³⁶.

Public art is also held to be able to provide economic benefits through helping the regeneration of urban areas (Miles 1997; Sharp et al. 2005; McCarthy 2006; Coakley 2007). Cultural tourism³⁷, promoted through the creation of public art can also

³⁶ An example of this is the maritime town of Cobh in Ireland which uses public art as a memorial to a number of important maritime incidents which the town played a part, particularly the *Lusitania* and *Titanic* disasters (Coakley 2007).

³⁷ An example of this is the major annual public art displays at Rhode Island, which resulted in significant growth in tourism, and a flow on of economic benefits to the wider community, valued in the millions of dollars (Goldblatt and Perry 2002).

provide important economic benefits for local communities (Hall and Robertson 2001). Public art has also been linked to enhanced land values and the attraction of local investment (Sharp et al. 2005; McCarthy 2006).

Increased employment or marketing of a specific community can arise from the cultural investment in public art (Roberts and Marsh 1995; Adams 1997; Kins 1998). Public art is perceived to assist with the branding and marketing through creating a point of difference for the community and creating a community characteristic and community expression (Sharp et al. 2005; McCarthy 2006).

Public art is also held to provide psychological benefits. Psychological benefits include the enhancement of civic pride and identity, and social inclusion. Public art is argued to increase civic pride and identity through a combination of enhanced visual quality, local distinctiveness and awareness of a community (Adams 1997; Miles 1997; Goodling 1998; Sharp et al 2005; McCarthy 2006). Similar to economic benefits, the promotion of the city image not only helps tourism but also the development of a sense of community and place, by attracting community members through creating more visually pleasing environment (Miles 1997; McCarthy 2006). Public art can also promote civic awareness by enhancing the building and environment. The artwork is able to create a sense of place or identity and may also alter the community perception about the place (Adams 1997; McCarthy 2006). In particular, the artwork has the ability to link individual and collective identities to enhance community members' sense of belonging (McCarthy 2006).

Social inclusion is held to be another benefit of public art, in particular, when the community is involved within the commissioning process of the project. The involvement of community members within public art has the ability to integrate marginalised groups and encourage community engagement (Sharp et al 2005; McCarthy 2006). Therefore, public art also been argued to provide social and emotional satisfaction for community members. Public art is able to deliver social and emotional satisfaction through providing a sense of identity, engaging the non-verbal parts of the mind, enhancing and enriching the natural and human made environment, providing pleasure and enjoyment, and also the ability to stimulate higher levels of consciousness (Dissanayake 2001, 27-28).

Percent for Art appears to be a useful vehicle for the delivery of many of these social benefits associated with public art, due to the engagement of key stakeholders in the procurement process and the embedding of the artwork into specific public works project. These elements of the Percent for Art process result in community engagement, relevant artworks, income for artists, and input from building owners and architects in the delivery of artwork which is functional, attractive, and well regarded – positive externalities which are critical to consideration of the art work as ‘good’. A summary of the benefits of Public Art identified in the literature is provided in Table 7 below.

Table 7: Public Art – Benefits identified from the academic literature

Benefits	Description
Amenity	Enhanced public spaces – aesthetically, functionally, and by adding meaning
Artist	Skill development, employment opportunities, and creative opportunities
Economic	Tourism and urban regeneration and flow on effects to suppliers and manufacturers. Local branding or marketing benefits.
Building	Building design and complement architecture.
Community	Provide memorial, historical, and education benefits. Importantly to promote an appreciation of the arts in the wider community, promoting new relationships and new audiences for art.
Social psychological	Enhancement of civic pride and identity, through the specificity of the artwork. Enhancement of social inclusion, emotional satisfaction and enjoyment.

Summary of Economic Perspectives of Percent for Art

This section has outlined the potential value of Globerman’s and Vining’s (1996) framework in guiding an examination of the costs and benefits contributed by Percent for Art schemes. The literature that has been summarised suggests that Percent for Art schemes potential add to the costs and risks associated with asset specificity, task complexity, information asymmetry and low contestability. Globerman and Vining (1996, 582) indicate that, as such, the environment for contracts associated with Percent for Art schemes “is the most problematic environment in which to contract out, because all forms of bargaining and opportunism costs are present”. In order for these problems to be addressed, Globerman and Vining advocate the development of

‘new’ approaches to such contracting environments, such as the use of prototypes, multiple sourcing and joint governance arrangements.

However, the literature summarised in this section also indicates that the costs and risks associated with percent for art schemes may also be balanced by important benefits. A wide range of external benefits are associated with public art. Furthermore, the objectives of percent for art schemes clearly extend beyond asset procurement and include, importantly, community involvement and development. As such, concerns for the added contract complexity caused by percent for art needs to be weighed against its positive contributions to the community.

The Percent for Art Policy of the Western Australian Government: A Qualitative Analysis

This section sets out an analysis of the Percent for Art scheme in Western Australia – focussing on the costs and benefits of such a scheme as perceived by the various stakeholders. The costs and benefits associated with the WA Percent for Art policy are analysed based on data collected through interviews with significant financial and non-financial stakeholder groups, including Artists, Art Coordinators, Building User Representatives, Clients, DHW Contract Managers, DHW Policy Officers and Project Architects. This data identified each group’s perceptions of the costs and benefits involved with the policy.

The costs and benefits associated with the Percent for Art scheme varied depending on the stakeholder group which was being identified. Within the report, costs and benefits mentioned are considered significant if the costs and benefits have occurred across at least three interviewees within each interview category. A full list of the interviews, which have been de-identified, can be found in Appendix A.

Costs Associated with the Percent for Art Scheme in Western Australia

Costs tended to be viewed differently, depending on the stakeholder who was interviewed, although time was the predominant cost identified. These aspects are discussed in detail below:

Costs according to Art Coordinators

Aside from the actual direct costs associated with the delivery of the artworks themselves, the major cost involved within the implementation of the WA Percent for Art policy was time – particularly the time involved in preparing for, and travel to, meetings and the time required to managing and coordinate the percent art selection process. The arts coordinators also noted that there were costs involved within the WA Percent for Art policy due to the need for the maintenance of the artwork, which often was not included in the original budget. The time costs involved were principally due to administration time, time costs from clients, and the time required to prepare for, travel to, and participate in Artwork Selection Committees, which included the time of submission preparation for the artist. Interestingly, although the majority of Art Coordinators stated that time was the largest cost involved within the implementation, everyone involved within the project did not raise significant objections to this cost, primarily due to the enjoyment and benefits gained from the WA Percent for Art projects.

According to Art Coordinator 1, engaging with the art projects within the Percent for Art policy is an ‘infectious’ process. Art Coordinator 1 continued by stating that although extra time was involved within the implementation of the Percent for Art projects, the enjoyment and positive attitudes of all involved influences people to “go the extra mile”.

Art Coordinator 5 suggested that occasionally the art work itself suffered from the consultative process, so the more controversial art was filtered out in the process. They also suggested that the lure of government contracts could detract from the generation of a portfolio of artworks which could be displayed in a gallery, so the cost was the lost opportunity of developing and displaying an independent body of work.

Costs according to Artists

The major cost involved within the WA Percent for Art policy is the large learning curve that the policy imposes upon the Artist. A learning curve refers to the amount of

self education that the Artist must undergo to be able to participate within the WA Percent for Art project. The learning curve imposes extra challenges onto the Artist above and beyond their training as artists.

Examples of the types of additional skills required are:

- Conduct of research
- Competitive tendering – including communication and presentation skills
- Working with government, subcontractors and builders
- Contract management
- Small business management
- Learning to work with new materials

At present, comprehensive formal training is not provided to artists to work on public art or within programs such as the WA Percent for Art policy. As a result, working on the WA Percent for Art policy is a steep learning curve for an artist as they are constantly learning and developing new skills.

According to Artist 2 “Public art is difficult in that there really isn’t any training for it, and you have got to be able to be an artist and come up with ideas and be critical, you have also then got to be a communicator of those ideas, otherwise you are not successful in public art”.

Artist 2 continued by stating “You have got to learn new things all the time, there are certain materials, you have got to learn how building materials work, and what the difference is between that grade of stainless steel and that grade of stainless steel beside cost, and stuff like that, you have got to learn to be a small business person, you have got to take on all those kinds of insurances, taxation, employ people, superannuation”.

Moreover, the learning curve also involves the extra challenges that can arise from working with builders or cooperating with building programs, and also working with

different materials and building strategies compared to the 'normally' considered art materials. For example "building materials are not traditionally used for making art. One difference is that building materials generally last 30 years compared to art materials that last a life time. When buildings and artworks are integrated, the art work is required to be made from building materials. As a result the art can suffer due to the building materials, and creates an extra challenge for the artist". According to Artist 2 "to be successful, have to be a reasonable artist and operate skills of artists in a new context".

Learning curve also involves the costs from technical complications. Artist 1 stated that they have made a point of researching all the possibilities that could go wrong with miscommunication from business materials. It was only from past experience and a steep learning curve that the artist has learnt to research. During the learning curve the artist underwent financial and psychological stress costs. This involves miscommunication between the artist and the builders that results in incorrect art work surfaces prepared.

The majority of Artists stated that another major cost involved within the WA Percent for Art projects is learning how to work within a competitive environment. In particular, the Artists were referring to learning how to deal with rejection and the increasing level of competition involved within the WA Percent for Art projects. Dealing with rejection can also be difficult process, as competition is also increasing. However, the opportunities for artists are also increasing with percent art projects as, according to one interviewee "artists are becoming more aware and directing their creative abilities, because they know it is an area where you can get real work".

Costs according to Building user representatives

Time considerations were the largest cost described by the majority of interviewees and refer to the financial and stressful costs that arise from the extra time required to implement the WA Percent for Art project. All building user interviewees stated that although time was an issue and encompassed both tangible and intangible costs, they did not begrudge it as the Percent for Art project is a 'fun process'.

Building user representative 1 stated that the time that people spent on the WA Percent for Art process was a high cost. However the Building user representative 1 also stated that “I don’t think people thought of that, as it was kept as a fun process involving the staff and kids”. Building user representative 1 further stated “it was time, but it was time that people felt was well spent because the end product was beneficial to the school”.

Building user representative 2 also stated that time was a high cost. For example Building user representative 2 stated “that the primarily cost is the budget and the time, but I don’t at any point of time begrudge the fact that the budget was going into art work, I think that is a positive thing, so do I support Percent for Art? Absolutely. I think it is a great policy, and I think having a good process to follow, I don’t see too many downsides to it, it can be lengthy, a bit complicated, can be challenging to get your head around, but I think the eventual outcome is a very positive one, and there is some very good public art work as part of school buildings”.

Costs according to Client representatives

Time and maintenance were the major costs recognised by the client representatives. The majority of interviewees reported that the extra time required within the implementation of the WA Percent for Art policy was a significant cost of the policy. Similar to the other responses, the client representatives found that although there were real time issues within the implementation, no one really minded.

According to Client 1 “the project budget does not include the time of the people sitting on committees. However because everybody really sees it as art, and we all bend the rules to accommodate it, it is just one of those funny things”. Client 7 also acknowledged the time commitment costs involved within the implementation of the WA Percent for Art policy. However, Client 7 stated that the time commitment was “nothing different to any other policy”, and was therefore was not viewed as a problem.

Client 2 represented education and stated that the biggest time problems were faced by the end user representative. For example it was reported that “most of the meetings tended to be held during school time. This meant that the parent representatives would have to be available to get away from work and teachers representatives away from class”. Likewise the participation of students required their absence from other classes.

Another cost involved within the WA Percent for Art policy is the extra costs involved with the maintenance of the artwork. According to the Clients, maintenance of the artwork is a financial cost. For example, Client 5 “as a client group, we are reluctant to do maintenance on something that we did not want to have in the first place”.

Moreover, according to Client 6 “problems arise with the Percent for Art projects when the artwork is too complicated”. For example, one project featured music, however the music failed to play and maintenance became too expensive. The result was that the artwork was turned into a static display. In this way, the art became more ‘Plonk Art’ because the majority of the meaning was located within the music which didn’t work, so the art was no longer understandable in that context. Client 5 also mentioned that the art work did not have any meaning for the anticipated users of the building, and they felt the money could have been better spent on equipment. It is worth noting that these concerns were a minor refrain in the interviews, and in general ‘plonk art’ was avoided in the arts projects, largely due to the engagement of stakeholders early in the projects.

Costs according to DHW contract managers

The major costs involved within the implementation of the WA Percent for Art policy was the time involved with policy implementation. However, similar to the results within the other stakeholder groups, the enjoyable process and the benefits achieved from the WA Percent for Art policy outweighed the costs incurred from the extra time. For example, according to DHW Contract Manager 3, “the implementation does take a little more time, because of our briefing and coordination, but it is not huge, and the returns that we get for it is one hundred fold”.

Costs according to DHW Policy Officers

Time and resources were listed by the majority of DHW Policy Officers as the major costs involved within the implementation of the WA Percent for Art policy.

According to the DHW Policy Officer 3, the costs involved within the WA Percent for Art policy include costs to the agencies, their budgets, and time costs. However, it was acknowledged “the costs involved are the direct costs that are budgeted for so there is no stress on that”. The DHW Policy Officer 3 stated that the only problem is on high value projects, “where one percent of the construction cost equals close to \$10million. That is the only time there is project resistance”.

Similar to the responses of the other stakeholder groups, the majority of DHW Policy Officers concluded that although time was a definite issue, no one minded because of the enjoyment gained from participating within the WA Percent for Art policy.

According to DHW Policy Officer 2, although there was time and resources problem, it’s a ‘fun process’. DHW Policy Officer 2 stated that “the process is really fun and everyone wants to do it. It kind of runs itself, because people make the extra time”.

DHW Policy Officer 1 argued that respect was the key requirement to overcome the costs incurred from the extra time of implementation. According to the DHW Policy Officer 1 “The onus of the scheme is to convince a person that that is the most valuable way they could possibly spend that hour, and to make sure you don’t waste any time. You make sure it is respectful of people’s time, you know and I find that if you respect people’s time, you respect their position, their burden, their responsibilities, they will be very receptive and very grateful for that, I think there is a lot of communication that goes on today, that lacks that basic implied respect”.

Costs according to Project Architect

The major costs described by the project architect involved the coordination and distance of projects. Project Architect 1 states “There are certainly coordination issues there with Percent for Art, and ensuring, because artists work at one level and we

work at another level at times, and we are very technical about things, and so they don't quite understand that it is not just leave a space out there, and things like that, it is not as easy". However, Project Architect 1 stated that interacting early with the artist team was really important to achieving an integrated building artwork.

According to the Project Architect 1, "Distance is also another issue. The remoteness of building locations and make the process a little bit more difficult. The problem of distance is then compounded when the implementation team is uncoordinated"

Summary of Costs

The actual percentage of funding involved in Percent for Art is the most obvious direct cost involved in the implementation of the Percent for Art scheme. In line with the observations made in the previous section, additional costs are generated via the scheme's contribution to low contestability, high asset specificity and high task complexity involved in contracting for the provision of public art.

The low contestability of Percent for Art contracts was borne out in the interviews – particularly with artists who argue that in order to tender for government projects in the Percent for Art scheme successfully, a range of additional skills need to be developed. However, competition is increasing as more and more artists become aware of the funding opportunities and see the potential of earning income from government contracts. In the absence of quantitative data, the extent of increased competition has yet to be determined. Qualitative data suggests that competition is increasing, and artists are finding it more difficult to get work.

Limits on contestability are, however, also a formal feature of Percent for Art policy, in that there is a short list of artists and their proposed artwork. This feature of the scheme may be justified by a concern to minimize the transaction costs associated with reviewing a large number of proposals. The risks of low contestability are also reduced by having the Art Coordinators scan the art environment for new work.

Numerous interviewees noted that the main costs associated with the Percent for Art policy include that of time. For project officers this was time involved in managing of the project. For artists, it is the time needed to develop the proposals, and build the specified business and team –working skills to carry out the art project.

The requirement to invest time in developing a highly specific piece of public art necessitated the involvement of a large number of individuals in the planning and delivery of the piece of art, which resulted in unique pieces of artwork which are highly locality specific. Interestingly, this was not seen as a cost, but rather a benefit by interviewees. One of the outcomes and controversies which emerge from the specificity of the public art asset focus on whether the art is ‘poor art’ either because it does not provide a high level of artistic endeavour, or it does not meet community expectations. This cost was not mentioned by interviewers, and instead a picture emerges of high level of creativity and collaboration in the development of Percent for Art in Western Australia. The only comment noted in this respect is that undertaking Percent for Art projects, required the foregoing of other art projects or developing independent portfolios. Forgoing one project in favour of another can be construed as more of an exchange arrangement rather than a ‘loss’, as something was gained in return.

The large number of individuals involved (principals and agents), who held differing information (information asymmetry) and the inability to specify outcomes in contracts from the start greatly increased the task complexity of Percent for Art projects. Hence, time was indicated from the interviewees as one of the main costs associated with participation. A summary of the costs indicated in the interviews is provided in Table 8:

Table 8: Costs of the Percent for Art Policy According to Key Stakeholder Groups

Stakeholder group	Costs
Art Coordinators	Time – planning, preparation, travel and coordination
Artists	Learning curve to develop new skills for tendering, management and delivery of the public art work

Stakeholder group	Costs
	Time – to prepare and submit proposals, cope with rejection and the competitive environment Having to adjust schedules to work with construction teams
Building user representative	Time involved with participation of the artwork selection committee
Client representatives	Time – involved with the artwork selection committee Artwork maintenance
DHW contract manager	Time – additional responsibility of managing the artwork on top of the rest of the building contract
DHW Policy Officers	Time and resources to implement and monitor the policy
Project Architect	Time - Coordination and travel time involved in the artwork selection

Benefits of the Percent for Art Scheme in Western Australia

The major benefits derived from the WA Percent for Art policy were the economic benefits, a range of benefits for artists, for benefits for the amenity, quality and functionality of the building. Additionally the extended collaborations across industry and developed appreciation of the arts in society were noted.

Benefits according to Art Coordinators

The majority of Art Coordinators interviewed also stated that the WA Percent for Art policy provided direct benefits for the artists. Artist benefits were either in the form of economic benefits or skill development benefits. The WA Percent for Art policy is argued to provide a real income for WA Artists. According to Art Coordinator 3 “In terms of Percent for Art in WA, you definitely have to say that artists have benefited in a monetary sense in being able to make a living from working on public art projects. There is a lot of money being spent on public art”.

The generation of financial income for artists was an important part of the Percent for Art scheme, as was the extended supply of finances from percent art projects to a wider supply chain of sub-contracted personnel was noted by arts coordinators.

Additionally, the skill development of artists themselves was seen as a positive outcome from the percent art policy. These skills included tendering and submission preparation, and negotiation in arts projects. Arts Coordinator 3 also noted that the opportunity for participation in Percent for Art projects means that artists work was seen by a greater number of people, which helped to provide additional work opportunities for artists. This concept has not been noted in the literature to date.

The second benefit for Artist was described as skill development. Skill development refers to the artist gaining a range of diverse skills through their experience working on a WA Percent for Art project. Skills include time management, presentation and interpersonal skills. According to Art Coordinator 3, “These benefits for artist are obtained from the new working collaborations. The projects enable the artist to work more collectively and bring the artists in contact within people and out of isolation. The policy enables artist to work with people from different disciplines compared to the traditional isolating system of art that involves the individual artist working alone in their studio. It really brings them into contact with other people, and I think that is really exciting”.

The skill development of artists was also likened by the Art Coordinators as assisting the artist to engage within society. According to Art Coordinator 5 “It is important for artists to contribute back into society rather than solely in studio. This concept challenges the 19th and 20th century vision of arts as a sole agent or the romantic ideal of struggling artist. The WA Percent for Art policy introduces different spheres of life to the artist, and can change the artist’s perspective from inward to outward”. The majority of Art Coordinators also stated that another benefit from the WA Percent for Art policy was the multidisciplinary collaboration between the different construction disciplines. The interaction required within the implementation of the WA Percent for Art policy created the opportunity for previously separated construction and art disciplines to collaborate.

The majority of Art Coordinators stated that the WA Percent for Art policy provided benefits for the building in which it was located as well. These benefits related to increased aesthetics of the building itself, and an improved quality of the building as

an entirety. The other benefits for the building was that the Percent for Art project increased community ownership of the building, strengthening of community identity or increasing community engagement. There is an increased pride and ownership of the art work and the building to which it is integrated that filters back throughout the community. The increased sense of pride is created during the implementation process of the WA Percent for Art project. Furthermore the WA Percent for Art projects are able to benefit the community through creating the opportunity for engagement with the art. According to Art Coordinator 3, “Public art is about encouraging public engagement. It is not always a comfortable process”. The engagement with the art increases the sense of ownership and pride to the building.

According to the Art Coordinator 1, through the implementation process, people constantly go the extra mile and as a result the outcome from the artwork is often more than expected. The Art Coordinator 1 provided an example of a small project where the all people involved went the extra mile that resulted in the achievement of unexpected social outcomes – the preservation of history. Art Coordinator 1 provided a detailed example:

“DHW was applying the Percent for Art Policy to a hostel for mentally impaired men on the site of the hospital. The significance of the hostel was that it was to be open to anybody in the community, even though the house where the hostel was being built was historically a place that had a reputation for people never got turned away. DHW had attained the house on behalf of [a not-for-profit organisation]. For the Artwork, they wanted to preserve basalt stones that been mounted used as ballast in some ship, and they wanted to have a plaque with the original owners of the nursing home. The Artist designed a bench as a seat, and made a metal grid on legs sitting in the landscape. The hostel inmates got all this ballast from the flatbed, and their job was to chip off the mortar and clean it all up. The Artist then took the ballast because it was cut into squares, and dropped it into the grid and he made a really nice little photo edged plate that told the story. By then the project had run out of money and we had to fabricate the metal, so the Artist approached a local ship building company. One of the directors was very supportive and volunteered their pattern cutters. So the project artwork was able to be welded,

and so we have got a very nice outcome, a very modern sophisticated bench, but it has got all those things that tug at the heart strings for [non-profit agency] people, and a plaque as well, so we have managed to I suppose make that money behave functionally in a way, contribute to the aesthetics and use of the place, and we have involved people in it, so they have a sense of pride”

Here the artwork preserves historically important artefacts, as well as providing a functional bench.

According to Art Coordinator 5, “relationships developed between the different construction and art disciplines from working closely together – particularly artists and sub contractors and landscape architects” Art Coordinator 5.

An important by-product of all of the benefits of the Percent for Art program in Western Australia is the development of a wider appreciation of the arts by the public (Arts Coordinator 3 and 5). Additionally the percent art policy functioned as a ‘flagship’ program which prompted other local councils and private developers to include a Percent for Art in their developments, even though they were not required to by the policy. It is these wider externalities which have been held by various economists to provide the strongest support for public art projects (e.g. Robbins 1963).

Benefits according to Artists

The major benefits cited by this group of stakeholders included: the scale of the project and its ownership; artist skill development; working with people and increased artist network (2/3); and the economic benefits for artists.

The scale and ownership of the project refers to the benefit that is achieved from being able to work on own projects not possible without the WA Percent for Art scheme. The benefit is both economic and intangible. According to Artist 3, the opportunity to develop a large scale art project is rare and that the opportunity provided by the WA Percent for Art project to have your own large scale project is

really special. Artist 3 also stated that with the Percent for Art project “You have time to get through your work and they let you have a project. It’s great”. According to the Artist 2 “the WA Percent for Art project has been beneficial in terms of exposure, and being able to create art work on a much larger scale. I have been able to tackle issues that I only dreamt about, engaging landscape, how people walk through work”.

Artist 2 provided an example of this by stating “I could work in the studio and nobody would ever know I am here. Perhaps every two years, I would have an exhibition somewhere and if I am successful, I might sell half of it, you know, the pinnacle of my life would be getting a \$30,000 grant that I am meant to live off for a year with a family. Or doing public art, I can actually expand my practice, so instead of having \$7 000 and playing with stuff in here, I’ve got \$70 000 to make some great big thing in front of people. That’s great. That strokes the ego, just to be able to have that”.

Furthermore, the large scale of the art projects also provides trickle down effect of artist employment. According to the Artist 2 “the WA Percent for Art policy has also helped in all other sorts of areas, most artists actually employ other artists when they have got large projects on, so that is beneficial, as it has got quite a sort of trickle down effect. For example, a few years ago, I was working on a project and I employed another artist just to do the small project I had at the beginning. He earned more money doing art work for me, than he had ever earned through his own art. So it is very beneficial”.

The Artists skill development refers to the development of small business and interaction skills learnt by the artist from their involvement within the WA Percent for Art policy. Benefits from the WA Percent for Art policy include the development of skills in developing and delivering presentations, along with the development of skills in application writing. According to Artist 3 “Presentations are a great skill to learn, I find them quite creative when I get started on them.”. Artist 3 also notes that research is an important part of preparing for the tender process, and with each application better skills are developed.

The development of communication, presentation, application and small business skills is a real benefit from the WA Percent for Art policy. According to the Artist 2 “The more skills you develop, the more you grow, and whether you remain a sort of artist that sits in their studio all alone or you actually become a quasi small business person and you are out there doing all sorts of other interesting things”.

The majority of Artist stated that another benefit gained from the WA Percent for Art policy was the opportunity to work within different collaborations. The Artists were referring to the collaboration of Artist with Artist, and the cross cultural collaboration. Participating within the WA Percent for Art projects provides the opportunity to meet with and also see what other WA Artists are working on and creating. The Percent for Art policy also provided the opportunity for cross cultural collaborations and work teams.

According to Artist 1 stated that the cross cultural collaboration as “a hugely empowering to produce artwork together”. Artist 1 was particular referring to the inclusiveness of local Indigenous people in the art projects. The art projects not only joined the Indigenous and non Indigenous people together, but also joined other Indigenous tribes together. Artist 1 concluded that this was an important prospect for WA.

Economic benefits refer to the opportunity provided by the WA Percent for Art policy for the artist to earn a liveable income. According to Artist 2 “The other real benefit is that for the first time in a long time, artists can actually earn a real wage, and engage with the real world. They (the artist) can buy a house; have kids etc which are things that artists haven’t been able to take up, because you are basically pretty poor”.

Moreover while economic benefits finish with the completion of the Artwork they continue on through the economic benefits gained from recognition. According to Artist 2 “there are benefits for recognition, you see it out there a lot longer, you get to meet fairly interesting and important people and that might create a roll on effect, somebody might ring you up because they are putting together a submission for a

hotel and they suddenly think oh okay, we could call so and so, we know that person, because we've seen their work. Architects, you know suddenly start ringing up and saying we have got this interesting project, so recognition is important for it as well”

This expanded opportunity for developing increased business opportunities from a network of contacts developed through Percent for Art projects, what has been called a ‘roll on effect’ is an element which has not been noted in the literature to date. Roll-effects, especially those achieved by policy diffusion through private contractors undertaking functional art projects without Percent for Art prescriptions is a critical indicator of the utility of the policy in shaping better contracting regimes.

Benefits according to Building Users

The major benefits cited by this group included: artist benefits; and the benefits to the public building purpose or design, which included the artwork enhancing the school curriculum, or the wellness of patients within hospitals.

The majority of building users interviewed stated that artists benefited from the WA Percent for Art projects in terms of enhanced skill opportunity and development, and flow on effect of employment opportunities for artists. Artists were argued to benefit both economically and skill developmentally.

Building User Representative 3 stated that benefits for artists also included a flow-on effect of employment and training to other artists. The influx of working artists has resulted on flow on employment and training opportunities for other artists. Thus the benefits do not just flow to an individual artists, but benefit a wider network of artists both financially and in providing opportunities for skill development of nascent artists. For example, Building user representative 3 stated that “Some of our staff go out and do work at the Prison, one of the sisters goes out there Monday and Friday. One of the big rehab forms out there I suppose for prisons is art. They’ve got public artists go out there and teach the prisoners. That would never happen previously”.

The majority of Building User Representatives stated that a main benefit derived from the WA Percent for Art policy was the artwork enhancing the design and purpose of the building, or by adding another dimension to the building. For example, Building User Representative 1 stated that “the art project provides educational opportunities for children to learn about art from real artists”.

Building User Representative 2 also mentioned the educational benefit achieved through the WA Percent for Art projects. According to Building User Representative 2, “the development of educational processes about what art was always a major benefit from the program. The Artwork was able to impact on curriculum and provides educational program.

Building User Representative 3 provided a health example by discussing how the artwork created within the WA Percent for Art projects are able to further the health outcomes of the hospital. According to Building User Representative 3 “art provides soothing benefits. Patients will sit there and look at it, and it will take their mind off what they are currently thinking about, their illness. Basically, the visitors and patients come out and it is something different for them to do, those that are bedridden come out in a wheelchair. Art is strongly realised as holistic health. Art impacts on the wellness of the person and on their frame of mind”. Percent for art thus enhances the purpose of the building in which it is built – whether providing education opportunities in education buildings, or health benefits in health facilities. In this sense, art does more than make a building look nice – it enhances the functionality of the building itself to achieve the purpose of the building.

Building User Representative 2 stated that “art can add a dimension to a building, gives a heart to it. We tend to get caught up into boxes and squares and bricks and mortar, and I think having an art project in it can be an exciting project, to sort of bring it to a conclusion and can add so much more richness to the building project. I think it makes the school a richer place, art after all is a very important curriculum in a school - it is built into it”.

Other benefits which were only noted by a small number of building users included the opportunity to record history of a particular place or activity (Building User Representative 1).

Benefits according to Clients

The major benefits described by the client representative included: increased community ownership; increased building design and purpose; and artist benefits.

The majority of Client interviewees stated that the Percent for Art project creates benefits such as increased building ownership and pride, and also creating community icons. The incorporated building artwork also increases community ownership. For example, Client 2 who works in education stated that the artwork incorporated into the school building “has value because the artwork adds another dimension to the institution. The artwork is a point of difference for the school”. Client 2 also stated the having the artwork within the community building not only impacts on the users but filters through the entire community. The community is able to gain new perspectives on art which impacts on the way people perceive life. According to the interviewee “interaction with the art can change the way people look at things”.

Client 3 also states that “the community is able to benefit from ownership and pride. Ownership of the artwork and building is important as it can work to reduce building and art vandalism and graffiti. According to Client 4 “the Percent for Art policy provides benefits for the community through enhancing community identity and awareness”. Also similar to Client 3, Client 4 stated that the Percent for Art policy can also increase community ownership “through being able to create their own image”. Community can also benefit through aesthetically pleasing artworks.

According to Client 6, the Percent for Art project can enhance community engagement. For example, “the Percent for Art projects involve the community within the fun and colourful process”. Client 6 also stated that the Percent for Art policy can enhance the culture of the local community. According to Client 6, public buildings

are all the same, and the Percent for Art policy is able to make people start thinking about their own culture and community. This process has been a positive change”.

Furthermore, the artworks created under the WA Percent for Art scheme become local icons that increase local identity and tourism benefits. For example, according to Client 1 “there is one artwork that is a Pink Sea Container that is half in and half out. People often use the artwork as an iconic meeting point “I will meet you at the pink sea container”.

Similar to the previous stakeholder response, the majority of client interviewees stated a major benefit gained from the WA Percent for Art policy is the enhancement of the building design and purpose. For example, Client 1 represented education within several WA Percent for Art projects and discussed how incorporating the artwork into the school can enhance the purpose of the building. “The school community probably get the most benefit from the Percent for Art project, either the artwork is useful where the children can play on it, or the artwork is used in science, or it is used in the curriculum, within Art, English, or even in Math Classes.”

From their experience within education, Client 2 stated that the Percent for Art policy can create learning opportunities for the students. For example “the artist will engage with the students through workshops of presentations which will form the basis of student assignments or projects”. Client 2 also argued that while percent art enhanced the aesthetics of the building, having to incorporate a Percent for Art project helped the project team to consider a range of additional issues which improved the overall quality of the building itself.

For Client 7, who was involved within sport and recreation, the biggest benefit of the WA Percent for Art policy was the ability of the policy to enhance the purpose of the building. According to Client 7, “the Percent for Art policy provided the opportunity to for non sporting people to gain an appreciation of local sporting achievements, also provide the opportunity to sell sports facilities to the community, sell the sporting identity, and provide a change to reinvigorate sports”.

The majority of clients interviewed also stated that another major benefit gained from the WA Percent for Art policy was for the Artists. According to Client 5 “the Percent for Art policy creates benefits for the artist in terms of exposure and commissions”. Furthermore, Client 7 stated that that the WA Percent for Art policy creates unique opportunities for artists through the scale and diversity of the artworks.

Benefits according to DHW contract managers

The majority of benefits achieved from the policy identified by this stakeholder group include: artist benefits; community benefits; and client and end user benefits.

The majority of DHW Contract Managers stated that one of the major benefits achieved from the WA Percent for Art policy was for the artists via the skill development opportunity that is provided. For example, according to DHW Contract Manager 1, “I think the WA Percent for Art scheme has done wonders for the art community through having this opportunity which is part of Government policy”.

According to DHW Contract Manager 5, Artist benefits include development of business skills, such as interaction, negotiation, pitching and marketing, supply chain, managing groups and sub contracting. Also it was considered to provide economic benefits for the artist. Moreover, DHW Contract Manager 4 stated that the skill development is coupled with the knowledge development gained from working with different material.

The majority of interviewee stated that the WA Percent for Art policy provided benefits for the community in the shape of increased building ownership and would help towards enhancing public access to public buildings and enhanced community identity. Community benefits also include the benefits of increased tourism and building aesthetics.

DHW Contract Managers have argued that the increase in building ownership that occurs through the WA Percent for Art process has been linked to the decrease in

vandalism on WA Percent for Art buildings. Increased ownership and pride have acted as a deterrent for the usually high amount of building vandalism.

An example of enhanced building ownership was provided by the DHW Contract Manager 3. According to the DHW Contract Manager 3 “I always remember the first one I did at a child care centre, the kids came out of their activity spaces internally and went outside to the playground, and everyone wanted to be next to, it was a carving of Indians or something, their power poles had been carved out, they all wanted to stand there, and touch and feel and hug it. There were swings and slides, but they wanted to go to the art, I thought wow, this is good”.

Moreover, the WA Percent for Art policy has been argued to help enhance public access to public buildings. According to the DHW Contract Manager 2, “the WA Percent for Art projects combined with developments in architecture and design are working to deinstitutionalise public buildings. Back in the 60’s and 70’s government buildings were gaunt, dark, no colour, people went in and never come out, everyone was in black suits and white shirts, it is a more lively space that is being created now, spaces which draw people into, they become interesting and exciting to wander through and look at, a nice feeling, hotel like for hospital”.

Furthermore, the majority of DHW Contract Managers stated that the community benefit from the WA Percent for Art policy has been evident within the community reactions. For example, DHW Contract Manager 2 stated “People are now accepting and looking for Percent for Art in their buildings and as a part of their work. They are not saying that we could spend the \$80 000 on extra computers, they are saying the opposite, we want the Percent for Art, and we want to be part of that process”.

Another benefit gained from the WA Percent for Art policy is the ability of the artwork to further the purpose and design of the public building. According to DHW Contract Manager 4, “the incorporated artwork provides aesthetic benefit while also providing benefit to the building through adding the function of the building and helping achieve its social outcomes. For example aids learning with schools”. In other

words, while improving aesthetics, Percent for Art also improved the building as a whole, and enhanced the ability of the building to achieve its purpose. This is exemplified by DHW Contract Manager 5 who noted that within a mental health institution, the art can be used as therapy for the patients.

Benefits according to DHW policy officers

This group cited some additional interesting benefits obtained from the WA Percent for Art policy. These included: the benefits achieved to aid the purpose of the building; and the citizen versus consumer debate.

The majority of DHW Policy Officers stated that the major benefit from the WA Percent for Art policy was the enhancement of the building's design or purpose. According to the DHW Policy Officer 3, the WA Percent for Art policy provides benefits for the community. For example, "It is interesting that it's really low impact to implement, but it has such a big impact on the community, like everyone was talking about what the art does for them, it becomes an icon, it gives the school an identity".

Moreover, the DHW Policy Officer 3 stated "It becomes part of the building, the Indigenous art work, it makes the place beautiful, a safe place to come, you get all those sorts of stories, that is what stops the vandals from destroying it, because there is some sort of cultural identity with the building. It is quite a successful policy".

Similar to the response provided by Building User representative 2, who stated that the artwork created from the WA Percent for Art policy can add another dimension to the building, DHW Policy Officer 2 stated that the artwork can help transform previously sterile buildings into a pleasant environment. DHW Policy Officer 2 stated that the art was also described as the 'props to life'. The public art being able to soften the harsh architect styles of public buildings to create a softer and more pleasant environment.

Benefits according to Project architect

The major benefits achieved by the WA Percent for Art project involved ownership and pride and improvement to school retention. Community ownership and pride According to the Project Architect 1, reduced school vandalism is a benefit obtained from the WA Percent for Art policy. For example, “within one primary school project, there was some graffiti very early on in the process, and it was the kids who actually raised it with the teachers”. The example demonstrates the strong connection and school pride that is achieved from the WA Percent for Art project. Increased ownership of the building can also improve attendance and retention.

According to the Project Architect 1, the WA Percent for Art policy can also enhance the function of the building. For example, the WA Percent for Art policy process can be used as education for school children.

Summary of Benefits

A number of benefits from the Percent for Art policy have been identified through the interview process. These are summarised in the Table 9 below.

Table 9: Benefits of the Percent for Art Policy According to Key Stakeholder Groups

Stakeholder group	Benefits
Art Coordinators	Social benefits <ul style="list-style-type: none"> ○ Community engagement with the arts ○ Increased pride in the building due to the artwork ○ Development of a local / community identity Artist skill development – <ul style="list-style-type: none"> ○ particularly engagement with the community ○ collaboration with other artists and building contractors ○ tendering, presentation Artist economic benefits <ul style="list-style-type: none"> ○ income for artists and for their subcontractors Enhanced appreciation of the arts in the wider community Adoption of the percent art policy by local governments and private developers Preservation of history

Stakeholder group	Benefits
Artists	<p>Large scale of art project</p> <p>Artist skill development</p> <ul style="list-style-type: none"> ○ small business skills ○ tendering and presenting to government ○ employment and mentoring of other artists <p>Work collaborations</p> <ul style="list-style-type: none"> ○ Artist and artist ○ Cross cultural <p>Artist economic benefits</p> <ul style="list-style-type: none"> ○ Direct to artist and also for subcontractors <p>‘Roll on’ effect where initial large scale works promote the artist in the community leading to additional work</p>
Building user representative	<p>Artist skill development</p> <ul style="list-style-type: none"> ○ Direct to the artist, and also to sub-contractors <p>Artist economic benefits</p> <p>Building design and purpose</p> <ul style="list-style-type: none"> ○ Aesthetics of the building itself ○ Enhancing the purpose of the building itself
Client representatives	<p>Community benefit</p> <ul style="list-style-type: none"> ○ Enhanced engagement with the community ○ Development of local identity <p>Building design and purpose</p> <ul style="list-style-type: none"> ○ Reduced graffiti and vandalism ○ Better buildings as a result of Percent for Art <p>Artist benefits</p> <ul style="list-style-type: none"> ○ Direct income ○ Additional work due to increased visibility in the local community ○ Scale and diversity of the work <p>Enhanced appreciation of the arts by community</p>

Stakeholder group	Benefits
DHW contract manager	<p>Artist benefits</p> <ul style="list-style-type: none"> ○ Enhanced skills – particularly business and contracting ○ Enhanced sources of income <p>Community benefits</p> <ul style="list-style-type: none"> ○ Increased ownership of the building ○ Enhance public access to public buildings ○ Increase cultural tourism <p>Building design and purpose</p> <ul style="list-style-type: none"> ○ Enhanced aesthetics of buildings ○ Reduced vandalism ○ Enhancement purpose of the building (eg health institute using art to promote healing)
DHW Policy Officers	<p>Building design and purpose</p> <ul style="list-style-type: none"> ○ Enhanced functionality ○ Reduced vandalism
Project Architect	<p>Community ownership and pride</p> <p>Building design and purpose</p> <ul style="list-style-type: none"> ○ Enhanced functionality of buildings

Summary of Costs and Benefits of the Percent for Art Policy in Western Australia

The literature concerning principal agent theory focused on the costs and ways of minimising risk in the procurement of public art. The authors of the report cannot help but be impressed by the level of support and enthusiasm which the Percent for Art policy has been implemented in Western Australia, and note that the policy has been adopted beyond state governments into local governments as well (Baxter 1998).

While costs were noted in the interviews, the outcome was almost invariably seen as worth the investment. A point made by a number of respondents was that the whole process of procuring public art through the Percent for Art process was that it was fun – a concept which was not identified at all in the literature review.

There are a number of recurrent themes in the interviews of the Percent for Art policy in Western Australia. It is important to identify recurrent themes in qualitative interviews as this helps to ensure the reporting is not biased by one particular group or other. These costs and benefits are summarised in the following table.

Table 9: Overall summary of the costs and benefits of the WA Percent for Art Policy compared to the literature review

WA Percent for Art Outcomes	
Costs	Benefits
<p>Time (expected)</p> <ul style="list-style-type: none"> ○ while time for the volunteers was expected, the additional time of the arts coordinator, clients, artists and project coordinators was not expected. It should be noted that this time was not begrudged and contributed to beneficial outcomes. <p>Artwork maintenance (unexpected)</p> <p>Artist Learning curve (unexpected)</p> <p>The competitive environment (unexpected)</p> <p>% of the building cost (expected)</p>	<p>A fun process (unexpected)</p> <p>Artist skill development (expected)</p> <p>Artist economic benefits</p> <ul style="list-style-type: none"> ○ Direct income from percent art schemes (expected) ○ ‘Roll on’ effects due to enhanced visibility as an artist (unexpected) ○ Income for other artists and suppliers sub-contracted to main artist (unexpected) <p>Buildings</p> <ul style="list-style-type: none"> ○ Aesthetics (Expected) ○ Enhancing the functionality and purpose of the building (unexpected) ○ Enhancing the overall quality of the building (unexpected) <p>Community benefits and engagement</p> <ul style="list-style-type: none"> ○ Increased ownership of public buildings (unexpected) ○ Enhanced public access to public buildings (unexpected) ○ Increased cultural tourism (expected) <p>Enhanced community appreciation of arts (expected)</p> <p>Adoption of the Percent art policy by local authorities and private developers (unexpected)</p> <p>Work collaborations (unexpected)</p> <ul style="list-style-type: none"> ○ Between Artist and artist ○ Cross cultural ○ Getting stakeholders together

The Art Built-In Policy of the Queensland Government: A Qualitative Analysis

This section sets out an analysis of the Art Built-in policy in Queensland.

The Art Built-in policy allocates 2% “of the total value of capital works building budgets of State Government Departments to public art” (Art Built-in Policy and Guidelines 2004). The Art Built-in policy is designed to “ensure that cultural expertise and contemporary discourse are an integral part of shaping the built environment and influencing the spirit of the place” (Art Built-in Policy and Guidelines 2004, 5).

- The categories of interviewees are slightly different between the WA Percent for Art policy and the Qld Art Built-in policy. The interviewee categories are slightly different due to the slightly different delivery method of the two policies.
- The Art Built-in policy uses a Public Art Advisory Group (PAAG) opposed to the WA Percent for Art policy Artwork Selection Committee (ASC).
- The major difference is that there is no Art Coordinator position within the Qld Art Built-in policy. Instead of an Art Coordinator, the Qld Art Built-in policy has a Qld Department of Public Works (DPW) Project or Procurement Managers in the DPW Public Art Unit, and also has Curators which work with the DPW Project Managers on larger public art projects.

The focus of the analysis is on the costs and benefits of the Art Built-in policy as perceived by the various stakeholders. The costs and benefits associated with the Art Built-in policy are analysed based on data collected through interviews with significant financial and non financial stakeholder groups, including artists, client representatives, curators, project managers and policy officers. This data identified each groups’ perceptions of the costs and benefits involved with the policy.

The costs and benefits associated with the Art Built-in policy varied depending on the stakeholder group involved. Within the report, costs and benefits mentioned are considered significant if the costs and benefits have occurred across at least three

interviewees within each interview category. A full list of the interviews, which have been de-identified, can be found in Appendix B.

Costs Associated with the Art Built-in policy in Queensland

Costs according to Artists

The major costs involved within the implementation of the Art Built-in policy was the time and financial pressures faced by the interviewees and the high level of skill development required by the Artists. The interviewees also recognised that the Art Built-in projects can be particularly challenging for new artist who lack project management experience or articulation skills.

Time

Time pressures arise from extended or extra project meetings and time delays within the project schedule. Meetings within the project become a problem when the meetings constantly run over time or when are held up by other parties. Time pressures also arise from time line blow outs and time line delays. The larger project is often the cause of project timeline delays. Time line delays are an aspect of Art Built-in projects that the artist needs to learn about and how to budget for its contingencies.

Time delays within the Art Built-in project can have repercussion to other jobs timelines or other commitments of the Artists. According to the Artists, an Artist generally has one or two projects on the go at the same time to work as a public artist. The artists also work on very strictly managed timelines and are always working to a deadline. Therefore a project delay on one project can create delays for the artist's other projects.

Financial pressures

The time pressures are also related to the financial pressures faced by the artist's. The extra time required to complete projects was also combined with the extra budget expanses required to complete projects. The extra time involved the longer working hours and extra meetings required by stakeholders, which are generally not financially compensated for artists. According to the Artist 3, there is never enough money to

cover the concept design. The commission never covers the time and effort involved of the artist. For example, the artist needs to know manufacturing and technical issues, and material information to be able to design a piece of public artwork.

Financial pressures arise from the amount of remuneration involved within Art Built-in projects. The projects are often completed in stages with the 2% coming out of a project stage. As a result an artist is unable to live solely off the remuneration of a single Art Built-in project, and as previously mentioned an artist generally have to have other jobs going at the same time as the Art Built-in project to support themselves.

Organising finances and payment and taxation structures are also another difficult area to master and juggling finances can be a cost to the artists as well. For example, within Art Built-in projects, Artists generally only receive payment after the public art stage. Therefore suddenly receiving large amounts of payment in an account would take the artist over the taxation threshold across a few GST periods. Therefore, the artist has to learn how to manage their income, and also how to work with accountants.

Financial expenses for the artist also include the initial outlay of money. Artists have to outlay thousand of dollars at the start of project for project expenses without receiving payment for a few months after that. This can be especially hazardous to new artists with no economic backup and but can also be a burden for more established artists.

However the extra time and financial pressures are common on all projects. As described by the Artist 2 “I don’t think you ever get paid the whole cost, you end up working longer hours, on most projects, and it ends up costing more. There are also other factors, you need the crane for two day’s longer than you anticipated, or having to install the artwork on the weekend because of traffic, because we had to have a crane, and then that means penalty rates, and other anticipated expenses”. Therefore, the artists stated that it was important for the artist to set aside contingencies for the extra time and costs involved in Art Built-in projects. Also, according to the

interviewees, Artist's generally always go the extra step to do a good job. The passion of artist to go the extra step is something different that the artists bring to public art.

Skill development

Skill development was the other major cost recognised by the Artist. According to the Artist, the Art Built-in projects place pressure on the Artist's to develop their skills in administration and project management quickly and effectively.

Artist administration costs can include printing costs, insurance, fabrication and project management. However, although the administration tasks are challenging, once mastered they can also be a benefit for the artist, as the artist has been able to develop new skills. In particular, Artist can learn how to budget and plan for potential contingencies on the Art Built-in projects.

Project management skill development involves learning contract skills, implementation skills, and project skills. Also due to the time pressures on projects, these skills also need to be developed quickly. The artist is under pressure in Art Built-in projects to develop project management and contract skills quickly within the projects. As a public artist, the artist is required to understand the contract, understand the budget, and understand the timeline. In particular, to understand that timelines and budget can change throughout the projects. As described by Artist 3 "if I hadn't locked in and organised things properly, all of those costs would have gone up in that new time, and my budget wouldn't have meant anything, so those sort of things are very important". For artists who lack this experience, developing the project management skills required for a public art project can be a difficult learning curve.

The skill development pressures are increased because every project is different; requiring a new skill set, material knowledge and research time. However the Artist's interviewed noted that this is both a cost and a benefit. It is a cost because the learning curve is difficult, but once the skills are obtained it becomes a benefit for future projects

Skill development is particularly difficult for new artists. New artists are under pressure to develop their skills and also to self educate in order to understand public

artwork and project management. According to Artist 2, the development of public art education at university would help new artists into the field of public art, as “it is the questions that they have not asked which generally causes the problems” for new artists. The experience of the artist is also important within the artist selection process. The artist is being assessed on artistic ability and project management experience. Project management experience is important because “the projects are ‘real’ jobs that can have serious impacts”.

It would be hard to be accepted for a job if the artists are not particularly articulate. For example, if they could not explain the art and the connection between this art and the building project. Art Built-in projects can be particularly hard for new or unexperienced artists. As described by Artist 5 “I think the process can place a lot of limitations on certain artists, who probably create great work, but are not probably the most articulate people, and it would be very difficult for them in these circumstances, going on what we have experienced, you know, like the maintenance issues, it is one hurdle after another, and there are a lot of artists who are quite introverted, and don’t have great personalities or whatever it would be very difficult for them to convince the client, like this is going to work”.

According to the majority of Artist’s interviewed, to work as an public artist, an artist is generally required to have to have one or two projects on the go at the same time, need to be available throughout all stages of the process, need to be flexible, and also have a working lifestyle so that the artist is always available throughout the changing timelines of the project and installations.

Costs according to Client representatives

According to the Client representatives, time was the major costs involved within the implementation of the Art Built-in policy. Time can become a problem if the projects take extra time and energy to complete. Time pressure can arise from project time delays and the project requiring extra meetings, or from organisational problems such as the difficulty of coordinating jobs and balancing the work load of other jobs, problems with sourcing correct materials in the time frame

Time pressure are also a problem because they take extra time taken away from core business tasks and the unexpected time problems can cause stress for the people involved. For Client 2, the major time issue was with the extra and unexpected tasks that can end up being the responsibility of the clients. The extra time required to complete task become very frustrating and time consuming for the client. However, the majority of interviewees stated that the extra time involved is always seen as an investment rather than a cost.

An example of time delays causing stress and frustration was the maintenance issues at a public art installation at an emergency services station. The issue was that the concrete around the artwork was not reinforced and cracked when the artwork was moved to replace the lighting. This issue was increased by when the concrete slab was dug up; the concrete was left on the site for a long time. The problem was the time it took for the concrete slab around the artwork to be repaired. The time involved became an issue due to the ongoing conversations required to organise the maintenance work to be done. The communications going back and forth between the emergency services station and the people involved within the maintenance was another cause of frustration for the interviewee and the building users. The building users were very proud of the artwork and took great ownership of the artwork. Therefore when the artwork was hindered by the cracked concrete, and the maintenance people took a very long time to fix it, which involved the concrete slab being dug up and left outside the Fire Station for a few months, it really frustrated the building users. This issue of maintenance of public artworks is under reported in the academic literature, but is a practical cost which should be incorporated into public art programmes.

Costs according to Curators

The major cost described by the Project Curator was the extra time and effort required by the Artists. The problem is that the remuneration received from working on an Art Built-in project does not cover the extra time and effort required to complete a project. The remuneration is based on only a percent of the stage and not the entire project budget. The amount provided is not a liveable wage and the majority of artists generally have to juggle at least two jobs to survive.

Moreover, according to the Interviewee most artists will not sacrifice their art for a larger amount of pay. Artists receive a budget that is for their entire project including materials and the artist's wage. Therefore, a good artist is most likely to do the best possible job and receive less money for it.

Costs according to Project managers

The major cost described by the Project Manager was the extra time and effort involved within Art Built-in projects. However, although the extra time can be a burden it can also be a positive, as the extra time helps to develop closer relationships with the other stakeholders. The forming of relationship helps future projects and work. Building relationships was important to reduce time and stress. As described by the Project Manager 1 "Building those kinds of relationships are important in reducing the costs of time, because if you connect people face to face, and call up to get a question answered quickly, it makes it different than cold ringing and waiting two weeks for something".

Costs according to Policy officers

According to Policy Officers, the costs involved in the Art-Built-In were primarily around time – although like other stake holders, this was seen as a necessary investment which was needed in order to produce a good outcome. The other costs were involved in the costs for the art work itself (planning, delivery, materials, etc.), and the administrative costs for the department. Policy officers in Queensland felt that the main costs for artists were around the process of tendering for public art projects which were the most significant, together with the public, political and media scrutiny which can also occur. (It is important to note that the threshold for public art projects in Queensland was lower than in Western Australia, which may have made administration for very small projects the same as for large projects.

Summary of Costs

Time was the main cost associated with the Art Built-in policy. Time involved the extra time required to complete projects, project delays, and the time to coordinate meetings. For Artist's it is the time needed to research concept ideas and artwork materials, and for Clients it is the time required within extra meetings.

Similar to the Costs within the WA Percent for Art policy, the extra time and effort required by individuals to complete projects was seen overall as an investment. Although time was seen as a cost, the extra time was seen as a investment in building working relationships that continue onto future projects, and also to creating a ‘good’ outcome for the project.

Another cost associated with the Art Built-in policy was the financial pressure on the Artists, and the costs involved in developing new skills.

A summary of the costs indicated in the interviews is provided in Table 10, below.

Table 10: Costs of the Art Built-In policy According to Key Stakeholder Groups

Stakeholder group	Costs
Artists	Time and financial pressures <ul style="list-style-type: none"> ○ Project schedule delays. The delays have further impacts on the other jobs of the artists ○ Also not enough research time for artists Financial pressures <ul style="list-style-type: none"> ○ Extra outlay of expanses by artists ○ artists are unable to ‘live off’ payment from a single Art Built-in project Skill development demands <ul style="list-style-type: none"> ○ Artists are required to quickly develop skills in administration and project management ○ This can be particularly difficult for new artists
Client Representative	Time pressures <ul style="list-style-type: none"> ○ Extra meetings ○ Coordination difficulties ○ Extra time and effort required to complete projects
Curators	Extra time and effort required by the Artist <ul style="list-style-type: none"> ○ Remuneration does not cover the extra time and effort of the Artists
Project Managers	Time and effort <ul style="list-style-type: none"> ○ Extra time and effort to complete projects ○ Although a burden, can also be appositve as the extra time and effort helps to develop closer working relationships
Policy officers	Time and effort: <ul style="list-style-type: none"> ○ Time required to produce a good outcome ○ Tendering time required Administrative costs Costs for the art work itself Skill development for artists

Benefits of the Art Built-in policy in Queensland

The major benefits derived from the Art Built-in policy included benefits for the Artist's, benefits for the building, cultural benefits and potential benefits.

Benefits According to Artists

The majority of Artists interviewed stated that the Art Built-in policy provided benefits for Artists, benefits for the building, cultural and community benefits, as well as personal benefits for the interviewees.

Artist benefits

Artists can benefit from the Art Built-in projects through gaining exposure, enhancing or diversifying their Curriculum Vitae (CV), learning or developing a different set of skills, provides a mechanism to get the artist's work out in another development, and also gain public recognition from working on an iconic building or a high profile job.. According to Artist 2, working on an iconic building can help contacts, as it makes an impression on people and also help the artist's job profile. This relationship building between artists in collaborative work teams was an unexpected benefit of the scheme

The Art Built-in policy also provides a learning curve for the Artist to learn new skills such as business skill and project management skills. Project management skills can help efficiency within the artist's personal work. Also, Artists are able to gain project management experience with installations, engineering, and technical processes.

Artists can also achieve satisfaction and pride from working on a public art project and gaining a big commission. The commission is able to complement the artist's own work. As described by Artist 2 "I really appreciate the opportunity of working for public art, I don't see it as any kind of compromise or anything, if you look on my website there is a public art side, and an exhibition side, and the money allows me to do other things, and make more work".

Furthermore, according to Artist 3, the commission that gives the artist a little "bankable" money, which allows the artist to develop their private studio, and provide studio time. The artists can gain a little economic benefit that helps with their studio work.

Building benefits

The building is able to benefit from the artwork created by the Art Built-in project. The artwork is able to function in several ways to add to the atmosphere of the building and enhance the experience for the people using the building. Art is able to help the building environment by improving the quality of the building. For example, artwork in a hospital can improve the environment which could lead to health benefits for the patients.

The artwork is also able to name the site and create something that people can identify with. The artwork is also able to educate about the history of the building and also add to the people's experience of the site. For example, the poetry within the Gabba artwork is able to provide a memory of past events. As described by Artist 3 "The way public artwork should work is that it is not something that should hit you in the face. For me, public art is a lot like that, people are getting on with their lives, they don't come to look at the art, but it is something that is there for a moment in time, when they might just notice it, and then they can experience that in some way, and it changes their day".

Cultural and Community benefits

According to the Artist interviewee, the Art Built-in policy is able to benefit the community in several ways.

The artwork produced from the Art Built-in project exposes the community to art. The policy introduces the art to the community, exposing art to the audience in a different environment, a less sterile environment and less elitist. As described by Artist 1 "Art Built-in is able to take art to a much wider audience and in a different sort of environment. It is not that sterile environment that art has a reputation for having; it is not an elitist thing at all. I think it makes people more aware that it is there. Everybody can enjoy it".

The artwork is able to educate the community, which enriches the community ambience. The community includes the inner community, wider community, government, the building users and others involved in the implementation.

Public art can enrich public culture. Generally there are two positions about public art. The first are those who see culture as fundamental, intrinsic ingredient of the cake and those who see culture as the icing of the (economic) cake. According to Artist 2 “There are two positions on this, either you see like I do, culture as an ingredient of the cake, or you see culture as the icing as what is essentially an economic cake. We can do without the icing as long as we have the cake. Now some people see the culture as kind of an intrinsic ingredient in life, and others see it as a kind of add on optional extra”.

Art is able to provide cultural benefits through enriching the cultural environment. Art can add quality to the environment. According to the Artist 2, art has a quiet quality, similar to the trees in the public parks, in which they are not noticed until they have been removed. Public art should educate but not preach social justice. As described by Artist 2 “It can educate, I don’t think the public like to be preached at, about whatever, equity and social justice, I don’t think public art should do that, you can find other ways of influencing people, so I don’t think the public see art in that way. Someone explained it to me like this once, often art is emotive, and I’m sure people drive past the Gabba everyday and don’t notice the art, but they don’t notice the trees in the park either, but if you cut them down, they would notice they were gone, so I think art and architecture adds to the quality of an environment”.

The artwork can provide iconic features to the building. The community is able to benefit from having an iconic building. The building can further become a landmark for future tourism. Artwork is also able to impact on Brisbane. Artist 3 offers the comparison to New York City, “I went to New York a couple of years ago, and I was so excited by all this huge public sculpture they had everywhere, every building you had something that named it, and there were contemporary artists, modernist, and minimalist, fantastic work, and I think it is really important for Brisbane to have, that Brisbane names itself”.

The artwork created through Art Built-in projects is able to provide community benefits through being able to enrich the cultural environment. The artwork is able to provide an intrinsic link between art and society and work to engage people with the

art. As described by Artist 5 “You like to think there is some kind of enrichment. In other cultures and other places there is an intrinsic linkage between art and happening in society that I don’t think historically is here in Australia. What is really important about public art is that it does engage people that potentially would not come in contact with what would be considered art, and it is trying to prevent that cultural decay. There is this more innate existence of art as a party of society, even if it is being going to a space that contains art and you experience the art. It comes from the environment, the architect, and the space”.

However, the Artist 2 did note that although public art can enrich people’s lives, it can also detract if the art is bad. The successfulness of artwork depends on the people involved. More successful public art could be achieved through collaboration with designers and architects. As described by Artist 2 “It can enrich, it can detract as well. In a way, the core constituency are architects, I think we over estimate the importance of art and we under estimate the importance of design. Design impacts on everybody’s life everyday, whether they know it or not, everything, your clothes, car, furniture, phone, everything is designed and it has an enormous impact on people’s lives, so an architect has an enormous impact through the built environment. So designers have a huge impact on people’s lives and really I think if you want to get people more connected with art you can do it through connecting through designers, which includes architects”.

Personal benefits

Personal benefits included the enjoyment of working on challenging and interesting projects, the satisfaction and pride from working on a public artwork, and the satisfaction from gaining the opportunity to work on a public project. According to the interviewees, Art Built-in projects are generally very satisfying projects to work on. Money is not the main motivator on Art Built-in projects, and artists generally have other, personal reasons for working on an Art Built-in project.

Artist 1 benefited personally from being able to work on a fascinating and interesting project. The Old Museum project provided Artist 1 with the opportunity to work with an array of different people, while also working on a project that had both new building and heritage building challenges. The challenge of the projects enabled Artist

3 to discover skills that they had before or that they did not recognise. For example, to budget, manage and negotiate. According to Artist 3, the learning curve is exciting and interesting as it pushes the artist further. Artist 5 stated that they enjoy the challenge of working with different people and the challenge of justifying abstract artwork to other people. As described Artist 5 “I like the challenge of having to justify potentially quite abstract ideas and articulate them in a way that will assist the client in understanding the scope of the artwork”.

Personal benefits also included satisfaction and pride from doing an artwork in the public. Overall for the interviewee, there were no real ‘costs’ involved in the Art Built-in projects as the practice “builds your experience”. As described by Artist 2 “Yes, there has been the satisfaction and pride of doing something public. It is really nice to get a big commission; someone is prepared to pay for your work, and that is a really nice deal and a really nice feeling”. Also, Artist 4 stated that working on large scale projects are challenging and very rewarding.

Another personal benefit was the satisfaction gained from the opportunity to work on a public project, which is quite a rare opportunity. As described by the Artist 3 “The policy itself has been a very good thing for me personally, it has been excellent, because I have been able to take my studio based work, out into the public and have little pockets around the city, that have a personal history for me, lots of the places that I have done the work, there is something in my past, my childhood or growing up that that site has been important to me, and just to have that opportunity, is very rare. I have been able to in a very small way as an artist, make a little moment in my own history, and for me that is very important, because I am not an iconic artist. So that has been a bonus”.

An additional particular personal benefit mentioned by the Artist’s involved in the Old Museum Building project, was the personal benefits gained from the Artist collaboration. The artist’s on the Old Museum Project worked within an artist collaboration that was comprised of three artists. The artists were all from different disciplines. The three artists has regular meeting and worked well. The Interviewees was able to benefit from the meetings, the three artists would feed off each other and would inturn inspire their personal work as well as the Art Built-in project. As

described by Artist 1 “The other two people I am working with are all young people from very different disciplines, and we get on extremely well and fire off each other, and have some really great ideas and that has been really wonderful”.

Benefits According to Client representatives

The major benefits achieved from the Art Built-in include benefits for the Artists, benefits for the building, cultural benefits, potential benefits, and personal benefits.

Artist benefits

According to the client representatives, the Art Built-in policy supports the Queensland art industry through providing new projects for artists. In particular, Artists are able to benefit from the policy by not only gaining jobs and financial gains, but also gaining the opportunity to develop new skills such as administration and project management skills.

Artists can benefit from the Art Built-in policy through gaining recognition and public exposure. The artist is able to expand and diversify their CV, and also from the recognition gained from the Art Built-in projects that can lead to the generation of new business or other jobs.

The Art Built-in project provides the artist with an opportunity to work on a large public building or location. In particular, the Gabba project provided the opportunity for the artists to work on a large and iconic building. This opportunity is unique for artists, benefits their CV, and provides something special for their art. As described by Client 1 “Getting involved in an iconic venue such as the Gabba is always very beneficial. Whilst the artists don’t have their names on a plaque at the moment, I know they have got it on their websites and so forth. As I said being involved in an iconic venue is a nice string to the bow”.

Building benefits

Benefits for the building include, increased public recognition for the building that can result in increased tourism, the artwork enhancing the enjoyment of the building users, lowered public resistance to new buildings, and the artwork enhancing the experience and work morale of the building occupants.

The artwork is able to increase public recognition by drawing attention to the amenity. An example was the artwork at an emergency services station. The artwork provides a benefit for the fire station by being able to draw focus to the amenity and increase the public recognition of the fire station. The artwork is also able to educate the public about Fire and Rescue overall. Although the uniforms and credibility are powerful tools of Fire and Rescue these aspects are only really seen in emergency circumstances. Therefore the artwork provides a way to communicate the message of the Fire Station, and Fire and Rescue to the public at other times. As described by Client 5 “If you put a sign that just says [an emergency services station], they will probably drive past it, and a thousand buildings that have got bigger letters on and they just don’t recognise it. However, if you drive past a bit of artwork that is easily recognised to be something that is relative to what we do, it draws their attention more to the building”.

The emergency services station has also benefited from the positive media exposure that has arisen from the Art Built-in artwork. According to Client 4, the emergency services station gained a lot of interest from the newspapers, and the Artist was interviewed by Quest Newspapers and the Courier Mail, and the emergency services station also had a big opening that involved different people from the policy Minister, the Emergency Services Minister, to the Director-General Commissioner.

The artwork helps people to connect to the building that helps to encourage more people to visit the building. An example is Old Museum Building project. The artwork has been noted to have the potential to have a positive impact on the Old Museum building when the redevelopment is complete. When the building is finished that artwork can encourage people walk around and admire the building or gardens. The artwork will provide a real connection with the building. According to Client 3, the artwork will help people connect with the building and work to complement the building. Families will be to into the building and connect with the space. The artwork will be able to bring back and capture the heritage of the Old Museum Project and provide a place that families would like to make a day that has a rich history, feeling and a heritage atmosphere.

Another example is an emergency services station Art Built-in project. According to Client 4, the artwork has enhanced the fire station, by creating an interesting and aesthetically pleasing artwork that complements the building design and purpose. The fire station has also benefited from community drop in of both local community member and tourists to the community have dropped into the fire station, based on an interest in the artwork.

The artwork is able to enhance the enjoyment of the building user by providing and also add to the experience of the building's visitors. According to the Client 1, the artwork was able to enhance the enjoyment of the rich variety of Gabba patrons through story telling and educational functions. For example, people waiting in concession stands are provided with something real and interesting to look at, thereby making their experience more enjoyable. The artwork also provides a stimulant for patrons to start talking to each other, creating a closer and friendlier environment.

According to Client 2, the artwork complementing the Gabba has provided benefits for the Gabba. For example, the Gabba artwork has been able to add to the experience of the visitors to the Gabba. As described by Client 2 "Obviously to the patrons that go there, it adds to the experience, they may have seen these things on TV or listened to them on the radio or read about them on paper, so when they are there, it adds to the history of the venue, and to the emotion of the event. We had 3.9 million people throughout venues last year, and there was a lot of sport and entertainment. I guess we are just trying to capture some of those moments, and putting them out on display. It fits in with our "Great venues, good times" motto. We are always trying to build a better event venue experience; it adds to the direction that we are taking the patron. I think it has a positive impact on the buildings, it adds colour and emotion and that is what sport and entertainment is about. Getting people excited and getting them through the door again".

Moreover, aesthetically pleasing artwork is able to help justify the artwork to the community. Artwork that is aesthetically pleasing for the public is able to influence a positive public perception of the value of the cost of the building.

Similar to the artwork's ability to enhance the experience of building users, the artwork is able to enhance the experience and the work morale of the building occupants. The artwork can add an element of pride to the building that can increase morale and the happiness of workers.

For example, the emergency service workers at an emergency services station benefited from the artwork. The artwork added an element of pride to the station. Increased morale is particularly important within the area of fire and rescue. For example, Client 5 stated that "I think it also adds to that element of pride in their station. What they have got is a little different and they do like it, and they are always pleased when they get positive comments from the public about it, so I think that goes into part of the morale in the place, because it tends to suffer from time to time in our line of work, and also I believe that will play a small part, but a part nonetheless in terms of sick leave management and those sort of issues. If people are happy with their workplace, they are less inclined for that to be contributing to that negative part of administrative business, which is not peculiar to the fire service that is everywhere".

Cultural and community benefits

The artwork provides benefits for the community through working as a cultural investment, add to the culture of Brisbane, and future economic benefits from tourism. The wider community are able to gain enjoyment from the community's appreciation of the artwork. The community also appreciates the landmark potential that the artwork provides.

The artwork serves as a cultural investment and art appreciation through exposing people to art that would otherwise not be exposed. Artwork as a cultural investment is also able to help lower any resistance that people may have in spending money on art. The artwork within the Gabba is a good example. According to Client 1 the artwork is able to serve as a cultural investment by being able to educate and help to spread the knowledge about the long sporting history of the Gabba.

The Art Built-in projects are able to provide cultural benefits for Brisbane. The artwork is able to add to the culture of Brisbane through improving and enhancing the

feeling of Brisbane. An example is the comparison to artwork in Europe. Europe has an abundance of art and sculpture built throughout the cities and walkways.

According to Client 3, “the artwork is everywhere, sculptures, paintings, large massive towers, the exciting artwork you can look at, paintings and read the words”. This level of artwork is something missing in Brisbane. The artwork at the Old Museum helps to achieve something similar. The artwork is able to improve the culture of Brisbane by providing a rich and interesting atmosphere for the place. The Interviewee recognised that the enhancement of Brisbane’s culture will take a long time, but it will happen through public policies such as the Art Built- in policy.

According to Client 5, the artwork is ‘good’ for Brisbane and provides an escape from the overcrowding of advertising within the city. Brisbane is in danger of being over run with ‘advertising clatter’. The artwork provides an aesthetic benefit that should be overtaken by advertising.

Community benefits also include the future economic benefits from tourism. The artwork is able to provide a mechanism to attract tourism. The artwork works as a tourism attraction because it is not only serves as culturally significant but also provides a free public attraction. For example, when complete the Old Museum project will be able to be a tourist attraction once again. The Old Museum will be able to hold concerts and be able to bring back the old ‘ambience’ of the place.

An example of community benefits is the community at an emergency services station. The local community have developed community pride for their new emergency services station, and consider the art beautiful. The artwork can benefit the community, as it is designed to be seen from both directions of traffic. As described by Client 4 “For the community, obviously they are very proud of their local new station and area head office, and as far as the artwork goes, sitting out the front when it is working, it is lit up and they have got this pretty idealistic emergency services worker, seen from both directions by traffic in their community”.

Potential benefits

The Art Built-in policy has the potential to provide a source for publicity. For example, a ceremony to mark the artwork unveiling would provide positive media

potential. Also according to Client 3, positive media has the potential to combat any negative reaction to the buildings redevelopment regarding any issues that the money should not be spent on a building that offers no returns. Relevant artwork is important to connect to the building to avoid negative public perception.

The Old Museum is a good example of the artwork providing a source for positive media for the Art Built-in client, because it is a different kind of public building, given that it does not have the same financial returns as other public buildings because it is mostly used by charity organisations. Therefore, the positive media helps to combat any negative reaction to the re-development regarding any issues that the money should not be spent on a building that offers no returns.

Also, other potential benefits that may be gained from the artwork include the potential to bring new people into the buildings, the potential to create behind the scenes tours and the potential to use the Art Built-in artwork as a launch point for other memorabilia. According to Client 2, memorabilia can contribute to the experience of coming to the ground. The increase of artwork has potential for tours attractions beyond sporting games. All the potential benefits can lead to economic benefits through increased tourism.

Personal Benefits

Personal benefits include the enjoyment from a fun project, enjoyment from working on interesting and challenging projects, benefits from the chance to work with different people, and the opportunity to diversify the Clients CV from working on a big project and the enjoyment of working on interesting and challenging projects.

Personal benefits included the enjoyment of a fun project and from the chance to deal with different people such as artists. As described by Client 2 “One of the main benefits was getting to meet some of the artists from a different walk of life. For example, one of the guys we worked with, I’ve seen him pop up in the Courier Mail previously, and I’ve learned a bit more about him through the work he has done, and industrial design and furniture that he has made. From that on a personal level, it is interesting to deal with different people, and seeing the work they are producing. I find it interesting, it adds a bit of colour to the week”.

Client 4 was also able to benefit from the Art Built-in project. The Interviewee enjoyed the opportunity to be part of the biggest, newest and most modern in design and IT capabilities in the area.

Benefits According to Curators

According to the curator, the Art Built-in policy is able to provide benefits for the building, the artists, the community, and also personal benefits for the interviewee.

Building benefits

The building is able to benefit from the artwork attracting people to the building. The artwork can attract people if the artwork is interesting, relevant and connected to the building. The artwork will impact on the building if it is site specific.

The Old Museum Project is a good example of artwork that was able to impact the building, or has the potential to impact once the renovations are finished. The artists working on the Old Museum created an artwork that was site specific to the Old Museum, including the history, occupiers and users of the building when designing the artwork. As described by the Curator 1 “Also I think the Old Museum Project artwork attracts people to the building, because it is illuminated and there is sound, and people can see that in passing, in cars or pedestrians, which could bring them in to the site”.

Artist benefits

Artists are able to learn new skills such as project management skills. This is particularly important for new artist who lack experience. The artists also gain recognition and the opportunity to practice their art, with the projects forming an extension to their private practice. The relationship building between artists in collaborative work teams was another benefit.

Community benefits

The community was able to benefit from the educational functions of the multi-layered artwork. Multi-layered artwork can be read on different levels and each viewing can reveal a different aspect of the artwork. Artwork can be educational.

Multilayered artwork is able to be viewed several times with ongoing learning and the artwork is able to educate about history of the building.

Personal benefits

The Old Museum project was also a personally rewarding experience for the Interviewee. Benefits for the interviewee included the enjoyment from working on an interesting project outside the gallery and also the opportunity to develop their research and writing skills. Research and writing were required to complete the project brief and expression of interest documents.

Benefits According to Project managers

According to the Project Manager, the Art Built-in policy is able to provide benefits for the Artists, the building, the Client and the community which includes community engagement benefits.

Artist benefits

Artists benefit from the Art Built-in projects through financial and economic gains, achieve artistic recognition, help to launch careers, the opportunity to have a large public work space, the opportunity to have own project, and also gain career development opportunities, such as exhibition practices and project management.

Artist benefits also include the opportunity to work with and learn about new materials. For example, the artist works with building materials that they have not used before. As a result the artist can invent or discover new ways of working with the material that the building, client or DPW did not know about or have nor previously discovered. As described by Project Manager 1 “It is great to see an artist expand their exhibition practice into a different arena, by giving artists a new opportunities and a budget it can help to launch their careers, as artists can get known for their artwork in a public space”.

Building benefits

The building can also benefit from the Art Built-in artwork. The artwork can help people connect with the building. The artwork can also become educational, for

example teaching history of the building with especially for example heritage buildings projects. As described by Project Manager 1 “People visiting the heritage building will appreciate the architecture, the landscaping, and the artwork which is educational. Public artwork at a heritage building can contain a lot of information about the building’s use.

The artwork can be used to help the building achieve or enhance its environmental quote. For example, art can be used to create a six green star building. Art used within the building or landscape can help to increase the building’s environmental qualities.

Client benefits

The artwork provides benefits to the client by being a tool within their marketing campaigns. The artwork is able to help with the client marketing campaigns by providing an attractive point of interest.

Community benefits

The wider community is able to benefit from the Art Built-in projects through the educational role of the artwork. Art serves as community education by being able to educate the community about the history of the building, the community or the place. The artwork can also enhance community connection. For example the Thursday Island Court House project. The artwork at the Thursday Island Court House made a deep connection with the people visiting and attending the courts house, people showing emotion to the impact of the artwork. The artwork has also been able to attract people to the Court House who would otherwise not attend. A similar example is Brisbane Magistrates Court House.

The community also benefits from being confronted with artwork on a day to day basis. As described by Project Manager 1 “I think that is good anyway, just for the general population to be confronted with artwork consistently from day to day”.

The artwork also provides benefits for the community as a community asset. For example an artwork is able to provide the community with assets through photographic and video art. The photographic and video art becomes a historical representation of that time. Therefore the video or sound used within the art should

not be updated, as the artwork is an asset in itself. As described by Project Manager 1 “For example, it is still difficult to convince Public Art clients that photography and video artwork is an asset. Both these artforms have become seen as an investment by art collectors, for example a video artwork just recently went up for auction at Sotheby’s. However, there is a deception that video artwork needs to be like a website or a TV screen that it’s context has to keep changing. This is an example of an ongoing issue, there is the arts industry movements to consider and the public perceptions that you need to be sensitive to as well”.

Community engagement benefits

Art Built-in project can help foster community engagement. As described by the Project Manager 1 “Community engagement is something that we do through the development of our projects, for example including stakeholders like heritage groups so they have their say, especially when it is changing and they are not happy about what is proposed; having the community involvement can really help”.

Benefits According to Policy officers

According to Policy officers in Queensland, there are a number of benefits from the Art Built-In policy. According to Queensland policy officers while some specific pieces of public art may not have worked out:

“the policy framework has been successful and is working incrementally to advocate and advance policy within government, and to manage risk on behalf of government. Policy has been successful overall and has been adopted by local governments and private developers”

The specific benefits of the Art Built-In policy identified by Queensland Policy Officers include:

Benefits for Artists

The main benefits for the artists are to provide employment and income for artists. A secondary benefit was the skills improvement for artists (both artistic and business skills).

However, the policy also brokered a wider set of relationships for the artist which would not have come into contact otherwise (e.g. Manufacturers, architects and designers). This provides an opportunity for involvement of the supply chain in arts projects – which adds something to their business. The initial public art work also has a knock on effect – successful completion of the initial art work leads to work in other states in Australia, and overseas – including one Brisbane firm which now has numerous international projects.

Benefits for the Building

Benefits of specific art projects for specific buildings was not discussed due to focus on wider policy settings, however, the policy officers noted an overall improvement in the quality of public art pieces in Queensland. The policy officers also noted that placing public art in places like hospitals was valued by Health clients as it was perceived as resulting in reduced recovery times in hospitals.

The building itself may receive media attention due to the iconic nature of the artwork. An example was given of some large art work which often features on news and events reporting concerning Brisbane.

Client and Community Benefits

The intent of the policy was to have a wide range of outcomes, These included:

- Enhancing the public appreciation for the arts
- Enhancing the standard of visual arts in Queensland
- Promoting tourism and regional identity (e.g. large public art works which have begun to be used by visual media when reporting about Brisbane)
- Promoting a sense of place
- Respect for cultural heritage and enhancing cultural diversity
- Providing a vehicle for community expression, Indigenous representation and the inclusion of young people
- Diffusion of the policy as it is adopted by private firms, and local government

Summary of Benefits

A number of benefits from the Art Built-in policy have been identified through the interview process. These are summarised in the Table below.

Table: Benefits of the Art Built-in policy According to Key Stakeholder Groups

Stakeholder group	Benefits
Artists	<p>Personal benefits</p> <ul style="list-style-type: none"> ○ the enjoyment of challenging projects ○ the satisfaction of working on a public building <p>Artist benefits</p> <ul style="list-style-type: none"> ○ exposure and recognition from public art ○ development of new skill set and also project management skills ○ relationship building between artists in collaborative work teams (unexpected) <p>Cultural and community benefits</p> <ul style="list-style-type: none"> ○ enriching community ambience ○ enriching people’s lives ○ educate the community ○ enrich public culture in Brisbane ○ and art can provide iconic features to the building which the community can enjoy <p>Building benefits</p> <ul style="list-style-type: none"> ○ artwork creating an environment for the building ○ educate about the building ○ also naming the site
Client Representative	<p>Artist benefits</p> <ul style="list-style-type: none"> ○ financial gains ○ opportunity to develop new skills, particularly in administration and project management ○ gain public recognition and exposure ○ generation of new jobs <p>Building benefits</p> <ul style="list-style-type: none"> ○ include storying telling and educational functions ○ the artwork can also add to the experience of the building visitors and to the enjoyment of the building inhabitants <p>Community and cultural benefits</p> <ul style="list-style-type: none"> ○ artwork as a cultural investment ○ art appreciation ○ add to atmosphere of Brisbane <p>Potential benefits</p> <ul style="list-style-type: none"> ○ Art Built-in providing a source of publicity ○ Positive media attention can combat any negative

	<p>public perception regarding financial cost of the artwork.</p> <ul style="list-style-type: none"> ○ Also, artwork has potential for tourism and economic benefits from tourism <p>Personal benefits</p> <ul style="list-style-type: none"> ○ enjoyment from working on a fun and interesting project ○ Also benefited from working on a ‘big’ project
Curators	<p>Building benefits</p> <ul style="list-style-type: none"> ○ artwork attracting people to the building ○ Site specific artwork is the best at doing this <p>Artist benefits</p> <ul style="list-style-type: none"> ○ development of new skills such as project management ○ the opportunity to practice their art and extend their private practice ○ New Artist practically gains from the experience ○ relationship building between artists in collaborative work teams (unexpected) <p>Community benefits</p> <ul style="list-style-type: none"> ○ education functions of the multi-layered artwork <p>Personal benefits</p> <ul style="list-style-type: none"> ○ enjoyment of working on an interesting project outside a gallery
Project Managers	<p>Artist benefits</p> <ul style="list-style-type: none"> ○ financial and economic gains ○ achieve artistic recognition and help launch careers ○ Also career development opportunities ○ opportunity to have a large project <p>Building benefits</p> <ul style="list-style-type: none"> ○ educational functions of the artwork ○ artwork helping people connect to the building ○ Artwork potential to help the building achieve or enhance its environmental quote <p>Client benefits</p> <ul style="list-style-type: none"> ○ artwork acting as a tool in their marketing campaign <p>Community benefits</p> <ul style="list-style-type: none"> ○ artwork as a community asset ○ artwork educating about history of building and place ○ art appreciation ○ Also can foster community engagement
Policy Officers	<p>Artist benefits</p> <ul style="list-style-type: none"> ○ financial support ○ opportunity to develop new skills, particularly in

	<p>administration and project management</p> <ul style="list-style-type: none"> ○ generation of new jobs interstate and overseas <p>Building benefits</p> <ul style="list-style-type: none"> ○ Enhanced recovery times in hospitals ○ Media opportunities for government <p>Community and cultural benefits</p> <ul style="list-style-type: none"> ○ Enhancing the public appreciation for the arts ○ Enhancing the standard of visual arts in Queensland ○ Promoting tourism and regional identity ○ Promoting a sense of place ○ Respect for cultural heritage and enhancing cultural diversity ○ Providing a vehicle for community expression, Indigenous representation and the inclusion of young people ○ Diffusion of the policy as it is adopted by private firms, and local government
--	---

Summary of Costs and Benefits of the Art Built-in Policy in Queensland

There are a number of recurrent themes in the interview of the Queensland Art Built-in policy. These costs and benefits are summarised in the following table.

Table: Overall Summary of the Costs and Benefits of the Qld Art Built-in Policy compared to the literature review.

Qld Art Built-in outcomes	
Costs	Benefits
<p>Time (unexpected)</p> <ul style="list-style-type: none"> ○ The additional time of the stakeholders was not expected. However the majority of interviewees did consider the extra time as important to developing a good outcome. <p>Financial pressures (unexpected)</p> <p>Skill development demands (unexpected)</p> <p>% of the building costs (expected)</p>	<p>Personal benefits for interviewees</p> <ul style="list-style-type: none"> ○ enjoyment of a challenging process (unexpected) <p>Artist benefits</p> <ul style="list-style-type: none"> ○ exposure / recognition (expected) ○ skill development (expected) ○ financial and economic gains (expected) ○ career development opportunities (expected) ○ relationship building between artists in collaborative work teams (unexpected) <p>Community benefits</p> <ul style="list-style-type: none"> ○ artwork as a community asset (expected) ○ educational role of the artwork ○ community art appreciation

	<p>(expected)</p> <ul style="list-style-type: none"> ○ enhance cultural atmosphere of Brisbane (expected) ○ provide iconic buildings for Brisbane (expected) ○ Enhancing the standard of visual arts in Queensland (unexpected) ○ Promoting tourism and regional identity (expected) ○ Promoting a sense of place ○ Providing a vehicle for community expression, Indigenous representation and the inclusion of young people (unexpected) ○ Diffusion of the policy as it is adopted by private firms, and local government <p>Building benefits</p> <ul style="list-style-type: none"> ○ Attracting people to the building by helping people connect with the building (unexpected) ○ Enhancing the experience of building users (unexpected) ○ Artwork potential to help the building achieve or enhance its environmental (unexpected) ○ Enhanced enjoyment and work morale of building occupants (unexpected) <p>Potential benefits</p> <ul style="list-style-type: none"> ○ Source for potential positive media (unexpected) ○ Potential for tourism and tourism economic benefits (expected)
--	--

WA Percent for Art policy and Qld Art Built-in Comparative Analysis

When a comparative analysis of the costs and benefits identified in the literature review and the interviews undertaken in Western Australia and Queensland, there are a number of unexpected costs and unexpected benefits alongside those that were expected.

Those elements which were expected were clearly identified in either the literature review, or were predicted by the economic framework which has framed the analysis of these social policies. Those elements which are labelled ‘unexpected’ were not identified in the literature review, but rather are novel findings of the research project.

The diagram below (Figure 14) illustrates the comparison between the expected and unexpected costs and benefits involved within the WA Percent for Art policy and the Qld Art Built-in policy. The expected costs and benefits are derived from the previous national and international Percent for Art policies and Art Built-in Policies, and the unexpected outcomes have been derived from the WA Percent for Art and Qld Art Built-in research findings.

Expected and Unexpected WA Percent for Art Outcomes

Globerman and Vining (1996) proposed in their framework that contracting in a situation which comprised information asymmetries, externalities, high task complexity and high asset specificity was a high risk proposition. They proposed that the development of prototypes and the establishment of joint governance mechanisms were ways of coping with the complexity and minimising risk.

The Western Australian policy required that each art project involved an initial submission of a number of concepts or ideas, which were then short listed to prepare detailed prototypes of the actual final artwork. This correlates with the proposition advocated by Globerman and Vinning (1996) that joint governance be incorporated into the procurement process.

The other interesting element in the Western Australian policy was that it ensured adequate representation of stakeholders in the development of the artwork for a specific building. This strategy overcame the difficulties noted in the literature review concerning the ownership of the art by the intended audience, and the difficulties in specifying outcomes in contracts. In so doing, another cost was introduced into the process – that of expenditure of time, which was mentioned by every stakeholder group. What is interesting here though is that this cost was not considered significant

– and simply part of the process in ensuring there was a good outcome for all involved. In other words the indirect costs of the involvement of representatives of the community in the planning and delivery of the public art work ensured that the externalities were positive in the delivery of a highly specific public asset.

Expected and Unexpected Queensland Art Built-in Policy

Interesting costs (different to WA % Art)

- Although the time is a burden, the extra time and effort helped to develop closer working relationships
- The cost of administration was seen to be slightly higher than in Western Australia – partially due to the competitive tendering arrangements which applied at smaller project amounts (this has been addressed in new policy however)

Interesting benefits (different to WA % Art)

- potential benefits, such as publicity and media coverage
- Client benefits – use of project in marketing campaign. Demonstrates another different outcome from the Art Built-in projects
- Some of the artists felt the remuneration in Queensland was lower than that in Western Australia, which may be due to the current policy threshold engaging at \$100,000 which would result in quite small projects for artists. This is likely to be addressed in the new policy which provides for larger projects.
- In Western Australia the emphasis was on permanent pieces of public art, whereas in Queensland ‘temporary’ public art works have been commissioned – which are seen to be particularly important medium of art which is often underfunded
- a really interesting aspect – mentioned by the Project Manager – was the Artwork potential to help the building environmental impact
- While Western Australia also noted that artists gained additional work out of the existing projects, in Queensland one company had managed to gain very large contracts internationally.

Globerman and Vining (1996) proposed in their framework that contracting in a situation which comprised information asymmetries, externalities, high task complexity and high asset specificity was a high risk proposition. They proposed that the development of prototypes and the establishment of joint governance mechanisms were ways of coping with the complexity and minimizing risk.

In both Queensland and Western Australian policies each art project involved an initial submission of a number of concepts or ideas, which were then short listed to prepare detailed prototypes of the actual final artwork. The selection of the art work was undertaken by a group of diverse stakeholders who could include the clients, the users, architects, engineers, public works authorities and even wider community groups. This correlates with the proposition advocated by Globerman and Vinning (1996) that joint governance be incorporated into the procurement process.

The other interesting element in the Queensland and Western Australian policies was the representation of stakeholders in the development of the artwork for a specific building. This strategy overcame the difficulties noted in the literature review concerning the ownership of the art by the intended audience, and the difficulties in specifying outcomes in contracts. In so doing, another cost was introduced into the process – that of expenditure of time, which was mentioned by every stakeholder group. What is interesting here though is that this cost was not considered significant – and simply part of the process in ensuring there was a good outcome for all involved. In economic terms the indirect costs of the involvement of representatives of the community in the planning and delivery of the public art work ensured that the externalities were positive in the delivery of a highly specific public asset.

The case study on percent for art in Queensland and Western Australia, has thus demonstrated that principal agent theory and extensions such as those proposed by Globerman and Vining (1996) have considerable utility in the examination of the embedding of social outcomes in public works procurement.

Additionally, while numerous costs and benefits have been proposed by various proponents of public art and percent for art, these have now been largely validated through a specific empirical case study – Percent for Art policies in Queensland and in Western Australia.

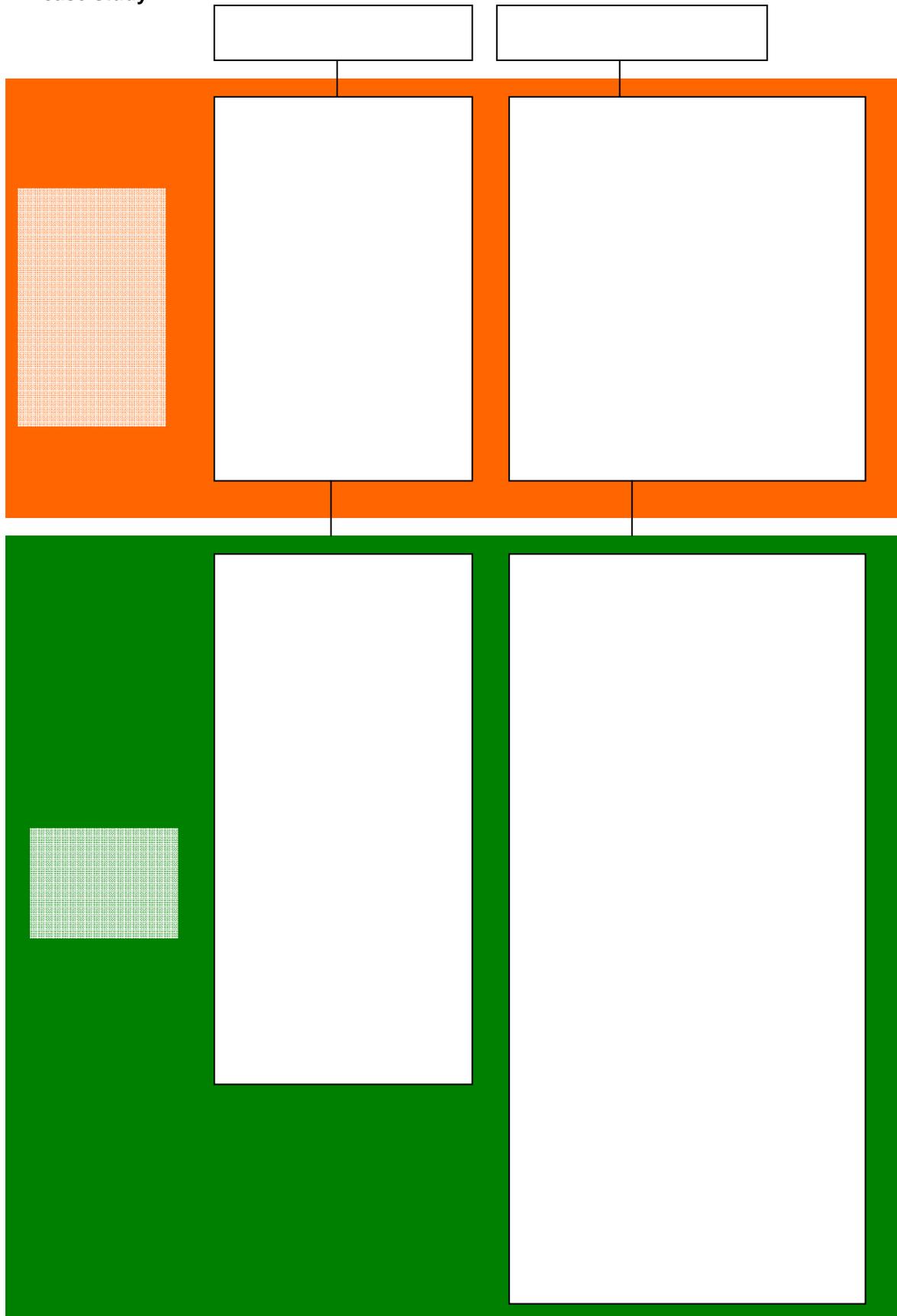
Table: WA Percent for Art policy and Qld Art Built-in Comparative Analysis

	WA Percent for Art Policy		Qld Art Built-in Policy	
	Costs	Benefits	Costs	Benefits
Outcomes predicted from literature review, which were also found in this case study	<p>% of total building costs</p> <p>Policy threshold is for projects over \$2million (optional below that)</p> <p>Time of volunteers, coordination time of government</p> <p>Poor art (only a couple were identified. Generally very high satisfaction rate)</p>	<p>Artist economic benefit, and skill development, creative opportunities</p> <p>Building appearance</p> <p>Increased cultural tourism and local identity</p> <p>Enhanced appreciation of the arts in community</p> <p>Providing emotional satisfaction, social inclusion, and history</p>	<p>% of the building costs (expected)</p> <p>Mandatory threshold for projects over \$100,000.</p>	<p>Artist benefits</p> <ul style="list-style-type: none"> - exposure and recognition - skill development - financial and economic gains - career development <p>Community benefits</p> <ul style="list-style-type: none"> - artwork as a community asset - community art appreciation - enhance cultural atmosphere of Brisbane - provide iconic buildings for Brisbane <p>Potential benefits for tourism and tourism economic benefits</p>
Novel findings from this case study	<p>As per literature review, plus:</p> <p>The need for art maintenance</p> <p>The competitive environment for artists</p>	<p>As per literature review, plus:</p> <p>A fun experience for all those involved</p> <p>Artists:</p> <ul style="list-style-type: none"> - Additional commissions 	<p>As per literature review, plus:</p> <p>Time (unexpected)</p> <ul style="list-style-type: none"> - The additional time of the stakeholders was not expected. 	<p>As per literature review, plus:</p> <p>Personal benefits for interviewees</p> <ul style="list-style-type: none"> - enjoyment of a challenging process

	<p>Learning curve for artists</p> <p>Time</p> <ul style="list-style-type: none"> - Preparation of submissions / briefs - Travel - Coordination time - Client time <p>(While time was mentioned as a cost most interviewees regarded this as time well spent)</p>	<p>due to enhanced artist visibility</p> <ul style="list-style-type: none"> - Income for subcontracted artists and suppliers to the main artist - Collaborations between artists and other artists, engineers and architects <p>Buildings</p> <ul style="list-style-type: none"> - Enhanced functionality and quality of buildings <p>Community benefits</p> <ul style="list-style-type: none"> - Increased ownership of public buildings - Enhanced access to public buildings <p>Policy diffusion</p> <p>Adoption of percent art policy by local authorities and private developers</p>	<ul style="list-style-type: none"> - However the majority of interviewees did consider the extra time as important to developing a good outcome. <p>Financial pressures</p> <p>Skill development demands</p>	<p>Artist benefits</p> <ul style="list-style-type: none"> - relationship building between artists in collaborative work teams - Leads to further work opportunities (including overseas) <p>Community benefits</p> <ul style="list-style-type: none"> - Educational role of the artwork <p>Building benefits</p> <ul style="list-style-type: none"> - Attracting people to the building - Enhancing the experience of building users - Artwork potential to help the building achieve or enhance environment - Enhance enjoyment and work morale of building occupants <p>Potential benefits</p> <ul style="list-style-type: none"> - Source for potential positive media attention
--	--	--	---	---

Summary of comparative analysis

Figure 14: Costs and Benefits of Percent for Art: Comparison between the expected outcomes identified from the literature and additional outcomes from this case study



Conclusions

The evidence that has been compiled on the leveraging of social outcomes on public construction projects raises substantial concerns about the net social benefits of many current interventions. Several interventions appear to involve a ‘light’ approach to the imposition of training or employment obligations on contractors. As such, they have the advantage of keeping administrative and additional contracting costs to a minimum. However, the positive impacts of the policy interventions on training and employment outcomes also appear to have been very small.

The comparison of the policy approaches adopted in Queensland and Western Australia has yielded some insights into possible improvements. The positive assessment of the impact of the committee established to provide industry feedback on the 10% Training Policy in Queensland indicates that structures of this type could be important innovations in other jurisdictions and for other policies. The higher level of resourcing of Indigenous Employment Policies in Queensland – together with the adoption of employment and training targets for specific indigenous communities – appears to have been much more successful than the WA approach, based on tender preference. The resourcing of the Industry Capability Network in Queensland - together with the adoption of a flexible approach to the application of the Local Employment Policy – appears to have avoided many of the problems experienced with the WA Buy Local Policy.

Generally, however, the project has highlighted that in the absence of strong industry commitment to policy objectives, policy interventions are likely to result in high levels of avoidance activity, substantial administrative costs and very few benefits. Thus, for policy action on, for example, training or local employment to be successful, compliance issues must be adequately addressed.

It is important to note in contrast the percent for art policies reviewed here, which provided for extensive consultation in the implementation of the policy in specific projects. While this consultation necessitated considerable involvement of time, the net effect was to engage these stakeholders in active decision making processes

concerning the art in buildings, thereby minimising risk associated with such art, and enhancing the ownership of the building in the process, and delivering a range of perceived benefits to these key stakeholders as an outcome of the percent art process. Perhaps the alignment of consultative process, which addresses cost and risk associated with percent art projects, and the delivery of a tangible product, which was also seen to deliver a range of intangible benefits for key stakeholders in the building, meant that percent art policies were better received in comparison to other policies.

Currently it appears that pre-qualification schemes (similar to the Priority Access Scheme) and schemes that rely on measuring, for example, the training investments of contractors within particular projects do not achieve high levels of compliance and involve significant administrative costs. Alternatives need to be developed to these policies. One *possibility* is a levy on each public construction project – set as a proportion of the total project costs. Although a full evaluation of this policy alternative was beyond the scope of the multi-outcomes construction policies project, it appears to offer the potential to minimize the transaction costs on contractors whilst enabling the creation of a training agency dedicated to improving the supply of skilled construction labour. A recommendation is thus made that this policy alternative – and the effectiveness of schemes, such as the Industry Training Fund in Queensland - be fully researched and evaluated.

The results of the multi-outcomes research project also highlight the need for sensitivity to project circumstances in the development and implementation of policies for public construction projects. As noted in the introduction, there is little perceived direct incentive for companies to train their staff, unless this results in defined benefits for their firm. In contrast, the percent art policies include a process of training and information sharing by art coordinators / art curators who discuss the benefits of the policy with key stakeholders, and engage these stakeholders in decision making about the solution.

Ideally a training policy framework would have the flexibility to respond to circumstances where contractors share a commitment to the policy objectives and are able to identify measurable social outcomes from the particular government projects they are involved in. This would involve a project-by-project negotiation of goals and

performance measures. It is likely to only be practical for large, longer term projects, but could provide a way forward to achieve policy outcomes in a more negotiated manner. The key would be to identify benefits for the contractors and other stakeholders in the process.

As a final observation, the results of the multi-outcomes project have also shown the potential for policy development in each State to be informed by the experiences of other jurisdictions. As Queensland and Western Australia share many similar economic and other characteristics, and have very similar social and economic goals, this potential is especially large. Thus, it can be expected that there will be ongoing collaborations between the State governments on research aimed at further improving training and employment outcomes via public construction projects.

Appendix A: Summary of interviews for percent for art

Stakeholder group	Interviewee Number	Date of interview	Type of interview
Art Coordinator	Art Coordinator 1	June 2007	Face to face
	Art Coordinator 2	June 2007	Face to face
	Art Coordinator 3	June 2007	Face to face
	Art Coordinator 4	November 2006	Face to face
	Art Coordinator 5	November 2006	Face to face
Artist	Artist 1	June 2007	Face to face
	Artist 2	June 2007	Face to face
	Artist 3	June 2007	Face to face
Building User Representative	Building user representative 1	June 2007	Face to face
	Building user representative 2	June 2007	Face to face
	Building user representative 3	June 2007	Face to face
Client Representative	Client representative 3	November 2006	Face to face
	Client representative 4	November 2006	Face to face
	Client representative 5	November 2006	Face to face
	Client representative 6	November 2006	Face to face
	Client representative 7	November 2006	Face to face
	Client representative 1	June 2007	Face to face
	Client representative 2	June 2007	Face to face
DHW Contract Manager	DHW contract manager 1	June 2007	Face to face
	DHW contract manager 2	June 2007	Face to face
	DHW contract manager 3	June 2007	Face to face
	DHW contract manager 4	November 2006	Face to face
	DHW contract manager 5	November 2006	Face to face
DHW Policy Officer	DHW Policy Officer 1	June 2007	Face to face
	DHW Policy Officer 2	June 2007	Face to face
	DHW Policy Officer 3	June 2007	Face to face
Project Architect	Project Architect 1	June 2007	Face to face
The following interviews have been conducted, however, at time of publication, feedback is still been gained on the interviews in order to include their perspectives in the research.			
Art Coordinator	Art Coordinator 6	November 2007	Face to Face
	Art Coordinator 7	November 2007	Face to Face
	Art Coordinator 8	November 2007	Face to Face
DWH Policy Officer	DHW Policy Officer 4	November 2007	Face to Face

Appendix B: Summary of interviews for Art Built-in

Stakeholder group	Interviewee Number	Date of interview	Type of interview
Artists	Artist 1	November 2007	Face to face
	Artist 2	December 2007	Face to face
	Artist 3	December 2007	Face to face
	Artist 4	December 2007	Face to face
	Artist 5	December 2007	Face to face
Client Representative	Client Representative 1	November 2007	Face to face
	Client Representative 2	November 2007	Face to face
	Client Representative 3	December 2007	Face to face
	Client Representative 4	December 2007	Face to face
	Client Representative 5	December 2007	Face to face
Curators	Curator 1	December 2007	Face to face
Project Managers	DPW Project Manager 1	October 2007	Face to face
Arts Queensland	Policy Officers	April 2008	Face to face

References

- "10% Training Policy" for Queensland Government building and construction contracts n.d. Retrieved May 8, 2007, from <http://www.build.qld.gov.au/industry/industry05.asp#10tp>
- Adams, D. and A. Goldbard. 1995. *New Deal Cultural Programs: Experiments in Cultural Democracy*. Webster's World of Cultural Democracy. <http://www.wvcd.org/policy/US/newdeal.html> (accessed 8 December, 2006).
- Anderson, Peter. 1998. Against the 'plonk' approach to public art. [The bay of Mooloolaba, a structure created by two architects and a host of artists.] [online]. *Artlink*, v.18, no.2, June/ Aug 1998: 40-41. Availability: <http://search.informit.com.au.ezp01.library.qut.edu.au/fullText;dn=981010813;res=APAFI> ISSN: 0727-1239. [cited 18 Dec 07].
- APCC 2002. Client Skills: Skills required by Government as the Construction Industry Client. Canberra: APCC. Downloaded from <http://www.apcc.gov.au/docs/ClientSkillsSep2002.pdf> on 10 February 2006.
- Armajani, S. 2004. Public art and the city. In *Public art: a reader*, ed. F. Matzner, 67-71. Ostfildern-Ruit, Germany: Hatje Cantz.
- Artz, K.W. and Brush, T.H. 2000. Asset specificity, uncertainty and relational norms: an examination of coordination costs in collaborative strategic alliances. *Journal of Economic Behavior and Organization* Vol. 41, pp, 337-362.
- Baxter, M. 1995. The continuing march of Western Australian sculpture. [Review of Sculpture Survey 1995 at the Gomboc Gallery and One Hundred Years of Sculpture 1895/ 1995 at the Art Gallery of Western Australia.] [online]. *Artlink*, v.15, nos 2-3, Winter-Spring 1995: 96-99.
- Baxter, M. 1998. Good or bad idea?: The community as public art practitioner: Artists cannot any longer be expected to work with the community unless there is a realistic time frame and budget. *Artlink*, 18 (2): 73-75.
- Becker, G. 1975. *Human Capital*. 2nd ed. New York: National Bureau of Economic Research.
- Bennett, J. & Iossa, E. 2005, 'Building and Managing Facilities for Public Service', Working Paper Series No. 05/137, Centre for Market and Public Organisation, University of Bristol.
- Beunders, H. 2007. The end of arrogance, the advent of persuasion: Public Art in a Multi-Cultural Society *Social Analysis* 51(1), pp.42-57.
- Blom-Hansen, J. 2003, 'Is private delivery of public services really cheaper? Evidence from public road maintenance in Denmark, *Public Choice*, Vol. 115: 419-438.
- Brecknock, R. 1992. Public Art – Public Places – Public Money *Culture and Policy* Volume 4. <http://web.archive.org/web/20020805113105/www.gu.edu.au/centre/cmp/4-07-Brecknock.html> accessed on 20 December 2007,
- Buy Local Policy*. Retrieved October 20, 2006, from <http://www.ssc.wa.gov.au/procurement03.aps>.
- Carver, R. 1989, 'Examining the Premises of Contracting Out', *Public Productivity & Management Review*, Vol. 13, No. 2: 27-40.
- Coakley, L. 2007. 'Sea, Sail, Steam and Emigration': The imagining of a heritage tourist town in the Republic of Ireland *Geography* Vol 92(1), pp.13-24. Accessed from <http://www.geography.org.uk/download/Geog%20Spr%2007%20Journal.pdf> on 18 December 2007.
- Demirag, I. 2004. "Towards Better Governance and Accountability: Exploring the Relationships between the Public, Private and the Community" *Journal of Corporate Citizenship*, 15: 19 – 26.

- Department of Housing and Works (DHW) 2005. . Department of Housing and Works Annual Report 2004-05. Retrieved October 18, 2006, from <http://www.dha.wa.gov.au>.
- Department of Culture and the Arts (2003) *Integrating Views: A review of the state government's percent for art scheme*. Perth: Department of Culture and the Arts.
- Department of the Arts. 1990. A Strategy for Public Art 1988-1990. Ministerial Task Force on Public Art. Western Australian Government.
- Department of the Arts (WA) 1993. A review and evaluation of process and some strategies for the nineties. In *A strategy for public art development in WA: The story so far*, ed. P. A. Taskforce. Perth, Western Australia.
- DHW 2006. . Retrieved October 18, 2006, from http://www.dhw.wa.gov.au/585_412.asp.
- Domberger, S. & Jensen, P. 1997, 'Contracting out by the Public Sector: Theory, Evidence, Prospects', *Oxford Review of Economic Policy*, 13(4): 67-78.
- Edwards, F. & Stevens, B. 1978, 'The Provision of Municipal Sanitation Services by Private Firms: An Empirical Analysis of the Efficiency of Alternative Market Structures and Regulatory Arrangements', *The Journal of Industrial Economics*, 27(2):133-147.
- Ehrenburg, R. and Smith, R. 2005. *Modern Labour Economics: Theory and Public Policy*. 9th ed. Boston: Pearson Education
- Erridge, A. and Greer, J. 2002. Partnerships and public procurement: Building social capital through supply chain relations. *Public Administration* Vol. 80(3), pp. 503-522.
- Fleming, R. L. and M. T. Goldman. 2005. Public art for the public. *Public Interest*, Spring 2005 (159): 55-76.
- Frey, B.S. 1999. State support and creativity in the arts: Some new considerations *Journal of Cultural Economics* 23, pp. 71–85.
- Furneaux, C.W., Brown, K.A., Allan, D., McConville, S., McFallan, S., London, K. and Burgess, J. 2006. "Client capabilities and capital works procurement policies: A comparative analysis of Australian jurisdictions" in Brown, K., K. Hampson and P. Brandon. *Clients Driving Construction Innovation: Moving Ideas into Practice*. Brisbane: Cooperative Research Centre for Construction Innovation, Icon.Net Pty Ltd.: 62 – 71
- Gablik, S. 1995. Connective Aesthetics: Art After Individualism. In *Mapping the terrain : new genre public art*, ed. S. Lacy, 74-87. Seattle Wash: Bay Press.
- Globerman, S. & Vining, A. 1996, 'A Framework for Evaluating the Government Contracting-Out Decision with an Application to Information Technology ', *Public Administration Review*, 56(6): 557-586.
- Goldblatt, J. and Perry, J. 2002. Re-building the Community with Fire, Water, and Music: The WaterFire Phenomenon *UTS: Event Research Conference* 15 to 16 July 2002, Sydney, pp. 539–563. Accessed from <http://www.acem.uts.edu.au/pdfs/Proceedings.pdf> on 18 December 2007.
- Gooding, M. 1998. Public art: space: Introductory essay. In *Public--art--space : a decade of Public Art Commissions Agency, 1987-1997*, ed. M. Gooding, 13-20. London: Merrell Holberton.
- Gopnik, A. 2005. Introduction: Art in the city. In *City art : New York's Percent for Art Program*, ed. M. Heiferman., 9-13. London ; New York: Merrell.
- Hall, T and Robertson, I. (2001) Public Art and Urban Regeneration: advocacy, claims and critical debates *Landscape Research* Vol. 26(1), 5-26.
- Hampson, K & Brandon, P. 2004. *Construction 2020: A Vision for Australia's Property and Construction Industry*, Brisbane: Cooperative Research Centre for Construction Innovation.
- Hart, O, Shleifer, A. & Vishny, R. 1997, 'The Proper Scope of Government: Theory and an Application to Prisons', *The Quarterly Journal of Economics*: 1127-1161.
- Heartney, E. 2005. The city as laboratory: Two decades of New York's percent for art program. In *City art : New York's Percent for Art Program*, ed. M. Heiferman, 15-23. London ; New York: Merrell.

- Hein, H. 1996. What is public art?: Time, place, and meaning. *The Journal of Aesthetics and Art Criticism*, 54 (1): 1-7.
- Hein, H. 2006. *Public art: thinking museums differently*. Lanham, MD: AltaMira Press.
- Hoffman, B. 1992. Law for Art's Sake in the Public Realm. In *Art and the public sphere*, ed. W. J. T. Mitchell, 113-146. Chicago: University of Chicago Press.
- Holcombe, R. 1991, 'Privatization of Municipal Wastewater Treatment', *Public Budgeting & Finance*, Fall: 28-42.
- Holmstrom, B. & Milgrom, P. 1991, 'Multitask Principal-Agent Analyses: Incentive contracts, Asset Ownership and Job Design', *Journal of Law and Economics*', Vol. 7: 24-52.
- Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects n.d.* Retrieved May 8, 2007, from <http://www.build.qld.gov.au/industry/industry05.asp#10tp>
- Jensen, M.C. 1994. . "Self-Interest, Altruism, Incentives & Agency Theory" *Journal of Applied Corporate Finance* 7(2): 40- 45
- Jensen, P. & Stonecash, R. 2004, 'The Efficiency of Public Sector Outsourcing Contracts: A Literature Review', Melbourne Institute Working Paper No. 29/04, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.
- Kins. 1998. Percent for art in the West: Western Australia is a boom state for public art because of percent for art agreements. *Artlink*, 18 (2): 76-77.
- Lacy, S. 1995. Introduction: Cultural Pilgrimages and Metaphoric Journeys. In *Mapping the terrain: new genre public art*, ed. S. Lacy, 19-47. Seattle, Wash: Bay Press.
- Lally, J. A. 1998. A moment of reflection: Public art, the Art for Public Places program, models for commissions and the matter of percent for art in South Australia. *Artlink*, 18 (2): 60-64.
- Local Industry Policy n.d. Retrieved May 11, 2007, from <http://www.sdi.qld.gov.au/dsdweb/v3/documents/objdirctrled/nonsecure/pdf/3760.pdf>
- Lynn, C. 2000. Profiling the Competent Project Manager. In *Project Management Research at the Turn of the Millenium*, 3 - 15. 21 - 24 June 2000, Paris.: Project Management Institute.
- MacGowan, Tempe. 2000. Heroism in the public domain [online]. *Artlink*, v.20, no.4, Dec 2000: 37-42. Availability: <http://search.informit.com.au.ezp01.library.qut.edu.au/fullText;dn=200106297;res=A> PAFT ISSN: 0727-1239. [cited 18 Dec 07].
- Manseau, André and Seaden, George 2001. "Analytical Framework" in André Manseau and George Seaden (Eds) *Innovation in Construction: An International Review of Public Policies*. New York: Taylor & Francis, pp. 7 – 18.
- Martin, S. K. Hartley and A. Cox. 1999. Public procurement diirectoives in the European Union: A study of local authority purchasing. *Public Administration*, 77(2), 387–406.
- Mazza, I. 2003. Public choice. In Towse, R. *A Handbook of Cultural Economics*. Cheltenham, UK: Edward Elgar, pp. 379–388.
- McCarthy, J. 2006. Regeneration of cultural quarters: Public art for place image or place identity. *Journal of Urban Design*, 11 (2): 243–262.
- McCrudden, C. 2004. Using procurement to achieve social outcomes *Natural Resources Forum* 28, 257–267.
- Miles, M. 1997. *Art, space and the city: public art and urban futures*. London ; New York: Routledge.
- Mitchell, W. J. T. 1992. Introduction: Utopia and Critique. In *Art and the public sphere*, ed. W. J. T. Mitchell. Chicago: University of Chicago Press.
- Morris, P. W. G. 1994. *The Management of Projects: A New Model*. London: Thomas Telford.
- Park, M. and G. E. Markowitz. 1998. New deal for public Art. In *Critical issues in public art: content, context, and controversy*, eds. H. F. Senie and S. Webster, 128-141. Washington: Smithsonian Institution Press

- Phillips, P. C. 1995. Public constructions. In *Mapping the terrain: new genre public art*, ed. S. Lacy, 60-71. Seattle, Wash: Bay Press.
- Phillips, R. 2004. Artful business: Using the arts for community economic development *Community Development Journal* Vol 39(2), pp. 112–122.
- Quiggin, J. 1996. “Private sector involvement in infrastructure projects” *Australian Economic Review*, 96(1), pp. 51- 64.
- Reca, J. & Zieg, K. 1995, ‘Privatization – An Analysis of Contracting Out of Government-Provided Services, *National Contract Management Journal*, 26(2): 51-64.
- Rimmer, S. 1994, ‘Competitive Tendering and Contracting: Theory and Research’, *The Australian Economic Review*, 3: 79-85.
- Robbins, L. 1963. Art and the state. In *Politics and Economics: Papers in political economy*, 53–72. London: Macmillan
- Robbins, L. 1971. Unsettled Questions in the Political Economy of the Arts. *Three Banks Review* No. 91 (September), pp. 3–19.
- Sharp, J., V. Pollock and R. Paddison. 2005. Just Art for a Just City: Public Art and Social Inclusion in Urban Regeneration. *Urban Studies*, 42 (5/6): 1001–1023.
- Shaw, G.B. 1903. *Man and Superman* New York: Brentano’s.
- Shuster, J.M. 1999. The other side of the subsidized muse: Indirect aid revisited *Journal of Cultural Economics* 23, pp. 51–70.
- Strom, E. and Wyszomirski, M. 2004. New directions in Arts and Cultural Policy *Review of Policy Research* Vol. 21(4), pp. 465–467.
- Taylor, R. 2002. Public art gets serious: focus on inner city and regional sites in Western Australia. *Artlink*, 22 (3): 25-29.
- Taylor, Robyn. 1998. Shelf life, use by date and other related issues: public art, when the honeymoon is over [online]. *Artlink*, v.18, no.2, June/ Aug 1998: 16-(18).
Availability:
<http://search.informit.com.au.ezp01.library.qut.edu.au/fullText;dn=981010804;res=A PAFT ISSN: 0727-1239>. [cited 18 Dec 07].
- Throsby, D. 2003. Cultural capital. In Towse, R. *A Handbook of Cultural Economics*. Cheltenham, UK: Edward Elgar, pp. 166–170.
- Towse, R. 2003. *A Handbook of Cultural Economics*. Cheltenham, UK: Edward Elgar.
- Trimarchi, M. 2003. Principal-agent analysis in Towse, R. *A Handbook of Cultural Economics*. Cheltenham, UK: Edward Elgar, pp. 373–378.
- Trimarchi, M. 2003. Principal-agent analysis in Towse, R. *A Handbook of Cultural Economics*. Cheltenham, UK: Edward Elgar, pp. 373–378.
- Watermayer, R. 2000. The use of Targeted Procurement as an Instrument of Poverty Alleviation and Job Creation in Infrastructure Projects. *Public Procurement Law Review*, Vol. 5, pp. 226-250.
- Williams, Linda. 2004. Active citizenship and the role of the artist: [Paper in: The Vocal Citizen, Patmore, Glenn and Jungwirth, Gary (eds.)] [online]. *Labor Essays*, 2004: 195-206. Availability:
<http://search.informit.com.au.ezp01.library.qut.edu.au/fullText;dn=200402295;res=A PAFT ISSN: 0158-9245. ISBN: 0959818170>. [cited 18 Dec 07].
- Worsham, J. and Gatrell, J. 2005. Multiple principals, multiple signals: A signalling approach to principal-agent relations *Policy Studies Journal* Vol. 33(3), pp. 363–376.



**Cooperative Research Centre
for Construction Innovation**

9th Floor, L Block
QUT Gardens Point
2 George Street
BRISBANE QLD 4001
AUSTRALIA

Tel: +61 7 3138 9291

Fax: +61 7 3138 9151

Email:
enquiries@construction-innovation.info

Web:
www.construction-innovation.info



Established and supported
under the Australian
Government's Cooperative
Research Centres Program