




The Economic, Social and Cultural Value of  
the Salamanca Arts Centre

2011-12

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## Preface

The Economic, Social and Cultural Value of Salamanca Arts Centre 2011-12 had an antecedent.

In 2010, for the first time, a ‘whole of arts centre’ survey of Salamanca Arts Centre (SAC) resident and user activity across individual artists, arts organisations and businesses – the Creative Hub as a whole – was undertaken. The collected data was informative, indeed surprising, and showed (inter alia) that more than 6000 artists were represented through the aggregated activities of Salamanca Arts Centre in 2009, in exhibitions, performances, represented by galleries, memberships of organisations.

That basic research demonstrated the need for greater detail and analysis to develop the insights that would help Salamanca Arts Centre’s many stakeholders, the Board and staff to understand more about our Creative Hub and its value to the community.

Economic impact of major cultural events is regularly measured in Tasmania, but there had been no measurement of the Economic, Social and Cultural contribution of the arts and creative industries. Our question was ‘could this be measured for Salamanca Arts Centre?’

Emeritus Professor Bruce Felmingham, Ian McMahon and Paul Muller of IMC Link scoped research options and proposed further developing for the cultural sector a methodology previously applied across the Tasmanian Sport and Recreation sector.

With support from Enterprise Connect, Salamanca Arts Centre partnered with the University of Tasmania with PhD candidate Paul Muller as lead researcher to undertake the research.

We’re proud to release the findings. They clearly demonstrate the value of this unique Tasmanian Creative Hub, a place where Tasmanian art is made and presented.

Our sincere thanks to Paul Muller and contributing researchers, the University of Tasmania, Enterprise Connect, and the Salamanca Arts Centre creative community. Thanks too to economist and Tasmanian arts supporter Saul Eslake who contributed an insightful Foreword, and to Professor Peter Rathjen, Vice Chancellor of the University of Tasmania who launched the study on 3 September 2013.

**Rosemary Miller**

CEO/Artistic Director

Salamanca Arts Centre

# The Economic, Social and Cultural Value of the Salamanca Arts Centre (2011-12)

**Paul Muller, Neil Cameron, Lauren Jameson, Kristel Robertson, Robert Grafton**

## Foreword

Economists are often derided as people who “know the price of everything and the value of nothing”. That’s neither true, nor fair: as the Nobel Prize winning-economist Paul Krugman has written, “Economists may make lots of bad predictions, but they do have a method – a systematic way of thinking about the world that is more true than not, that gives them genuine if imperfect expertise. That is also why lay commentators and other social scientists tend to hate them”.

In this study, Paul Muller and his colleagues use “a systematic way of thinking” about the value – in the broadest sense of that word – created by the investments which have been made by governments, donors, volunteers, users and consumers in Hobart’s iconic Salamanca Arts Centre – to show that the returns to the community from those investments far exceed their monetary cost.

Economists – and others – will no doubt find reasons to contest the precise figures which have been derived in this study, and the assumptions which (inevitably) have had to be made in arriving at them. But the rigour with which this study has been undertaken, and the transparency with which its findings have been presented, make its overall conclusions very compelling.

Just before he died, the great economist John Maynard Keynes wrote, “The civilizing arts ... use up an infinitesimal quantity of materials in relation to their importance in the national life and the comfort they can give to the individual spirit”. Paul and his colleagues have persuasively demonstrated the truth of Keynes’ insight in a uniquely Tasmanian context.

**Saul Eslake**

Economist and former Chair of the Tasmanian Arts Advisory Board

June 2013



## Acknowledgements

This is an independent report commissioned by the Salamanca Arts Centre, with the financial support of Enterprise Connect. The analysis and opinion within should not be taken to represent the position – official or otherwise – of anyone other than the authors of the report. Nevertheless, nothing here would have been possible without the generous contributions and administrative support of the following people:

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- Dr Dave Arthur
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- Ian McMahan, MMC Link, and
- Anne Fisher, MMC Link.

Paul Barnett and the University of Tasmania were also instrumental in informing the community of the project and motivating participation in the survey of consumers.

A number of other people gave generously of their time to consult with the authors, either directly or via the surveys that were conducted. Mindful of respecting their confidentiality, we do not identify them here.

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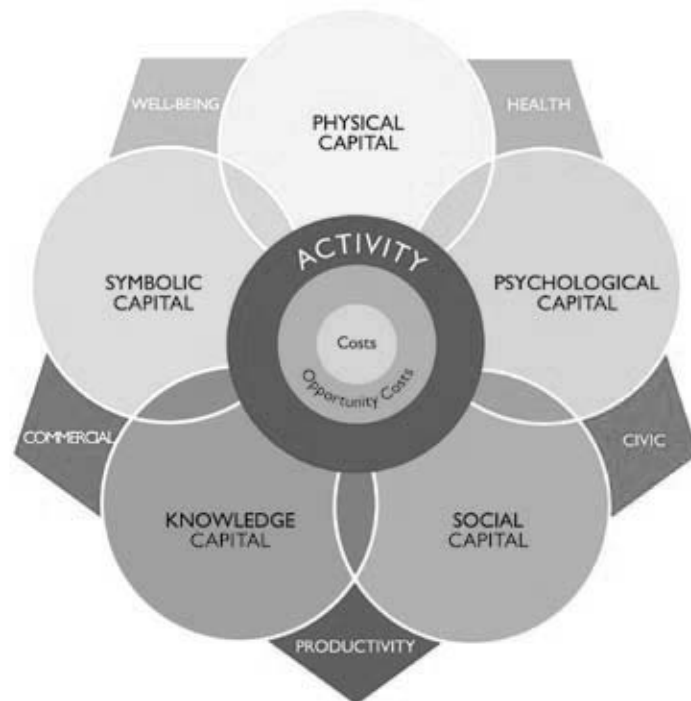
## Executive summary

**This report was commissioned by the Salamanca Arts Centre (SAC) to quantify its economic, social and cultural value.**

The original contribution of this study is to introduce a model that locates the discrete values of Arts activity and, for the first time, illustrate the dynamic ways in which they interact. The model depicts how we use time and money to create the activities of the Centre, which alter the individual and community states of physical, psychological, social, knowledge and symbolic capitals. This is then converted by users into a set of economically valuable outputs that impact upon the welfare of society.

Using this model this study appropriates many of the best-practice principles of cost and benefit analysis to estimate the value of the unique cluster of artistic producers, enablers and symbiotic industries that is SAC. As the first known valuation of an artistic ecosystem within a defined region, this study is as much exploratory study as it is conclusive. Further research into a number of areas is encouraged.

*Figure 1: Value Model*



The value of SAC to the community is conservatively estimated to be \$52.5 million in 2011 12. This figure is significantly greater than previous estimates based on price or economic impact; yet is likely to be an underestimate given the limitations of the available data and forensic techniques.

#### Other findings of note include:

- For every dollar invested by the community, **three dollars** were returned.
- All tiers of government invested \$3.1 million in SAC, and were returned \$2.4 million in taxes. The net cash outflow is therefore only **\$660,000**; or less than four per cent of the total direct investment.
- Net government outlay (inclusive of opportunity costs) was only **1.5 percent** of the sum of community benefits—a significant return on public investment.
- There is a **very high** degree of correlation between the willingness of non-SAC users to support the Centre and the level of government subsidy received.
- Despite the highly substitutable nature of each of the SAC benefits, even people who made no artistic purchases in the last 12 months were still willing to pay, on average, **over \$30** each per annum to preserve them.
- The benefit of enterprise clustering at SAC is estimated to be worth **\$5.3 million**.



# 1. Introduction

The Salamanca Arts Centre (SAC) is a not-for-profit Arts Centre housed in buildings owned by the Tasmanian Government and leased to SAC at a 'peppercorn' rental. More than 60 arts related organisations and individual artists are based at SAC, and SAC manages performing and visual arts spaces (venues) within seven heritage warehouse buildings. SAC also has one artist and projects residency cottage (Salamanca Arts Centre, 2012).

Since being founded in 1976 as a community and arts centre, SAC's mission has been to develop and promote the Arts in Tasmania through leadership, inspiration, creativity and excellence in arts development, programs and facilities.

SAC's supports the contemporary expression of the Arts via the following objectives:

- To develop a greater knowledge, understanding and practice of the Arts in Tasmania,
- To increase the accessibility of the Arts to the public of Tasmania,
- To promote community involvement in the practice of the Arts,
- To provide cooperation between practitioners of the Arts,
- To provide exhibitions of works of art,
- To provide teaching, and
- To advise and cooperate with institutions, government departments, social authorities and other bodies on any matters concerned directly or indirectly with these objectives (Salamanca Arts Centre, 2012).

For over 35 years, the Salamanca Arts Centre has been a focal point for the Tasmanian Arts and has made a significant contribution to the welfare of the community. Beyond its obvious commercial purpose, it has been a vibrant knowledge, cultural and entertainment hub, enriching the lives of countless Tasmanians. As with all centres of a similar purpose, the extent of this contribution cannot be fully captured in financial statements.

For that reason, the economic assessment of artistic activities has typically focused on statements of economic impact, such as increases in spending and employment associated with visitor and infrastructure spending. For example, a recent US study suggested that the non-profit arts and culture industry generates \$166.2 billion in economic activity every year - \$63.1 billion in spending by organisations and an additional \$103.1 billion in event-related spending by their audiences (Americans for the Arts, 2007).

Despite this, the use of such studies to quantify the contribution of the Arts to society, especially for the purposes of resource allocation, has been roundly condemned by both economists and non-economists alike (Madden, 2001). For at the heart of any investment appraisal decision is this basic question—does the planned activity lead to a net increase in social welfare?

Although economic impact assessment is a necessary step towards resolving this, it does not distinguish costs from benefits. For example, expenditure on a performance related injury is seen as a 'positive' economic impact, in that it creates spending and employment in the health services sector; however, injury in any form is ultimately a burden to the individual and society. Similarly, economic impact studies cannot be used to show the impact of the Arts on less tangible community outcomes such as productivity, civics, and individual well-being. It is for these and other reasons that economic impact analyses alone usually fail to influence mature policy decisions (Department of Treasury and Finance, 2005).

A cost-benefit approach is thus required to identify the real and opportunity costs associated with expenditure, as well as the benefits that flow, including economic impacts, preferences and avoided costs. The cost-benefit approach also demands particular attention to identification of the recipients of benefits or the bearers of costs. In this study they are divided into three categories:

1. individuals / households
2. businesses, and
3. government

Currently, cost-benefit analysis is the Australian government-preferred approach to evaluating policy choices (Office of Best Practice Regulation, 2005), however, it will be demonstrated here that by itself it is a blunt instrument when it comes to articulating the discrete value of an on going enterprise or cluster or activities, such as SAC. Therefore to locate and, perhaps more importantly, communicate the value of SAC, a comprehensive framework that integrates a proven variety of valuation techniques has been developed that is underpinned by the best-practice principles of cost-benefit analysis.

**This study has the potential to significantly influence the strategic direction of not only SAC, but its direct, indirect and potential stakeholders. It will assist SAC and its partners by:**

- quantifying the social, economic and cultural contribution that SAC makes to Tasmania
- providing robust social and economic information and advice to assist stakeholders in making strategic decisions about future resource allocation
- providing an opportunity to benchmark outcomes of SAC to measure future performance and the impact of any strategic changes
- providing a basis to make representations to State, Federal and other community stakeholders for funding partnerships, and
- providing evidenced based data for future marketing and public relations.



## 2. Methodology

### Economic value

This report defines value economically, as opposed to financially or philosophically. Value is typically measured in terms of trade-offs and is relative; in this instance money is used as the unit of account. To determine SAC's value to the community, individual valuations are aggregated.

Economic value refers to statements of value, which are made in monetary terms. Although this may appear to be a lame sort of truism, it has a series of important implications that must be kept in mind throughout the analysis.

The first is to understand the conditions under which valuation claims are made. When this study uses money to make claims of value, this is not intended to imply that value can be simplistically reduced to money. Putting forward monetary expressions of value, however, allows us to better understand the trade-offs a person or group is willing to make. Reducing the costs and benefits of SAC engagement to dollars and cents merely recognises the universality of money as an instrument of exchange.

Secondly, by arguing the relevance of economic value, this study is not interested in disqualifying or rivalling other forms of valuation—qualitative or quantitative. This statement is neither a sop to sentimentality nor a cop out on the issue of absolute forms of valuation; rather, it is pragmatic recognition of the fact that decision making in policy is inevitably fiscally constrained. Given the governing assumption that the Arts are by and large a public good, monetary comparisons are entirely relevant for the entirety of stakeholders involved.



## Alternative approaches to economic valuation

### Financial analysis

Although “the Arts” are notoriously difficult to define, the scope of this study is explicit. SAC is defined here as the aggregate of the tenants and casual hirers of the physical premises known as the Salamanca Arts Centre. In estimating their “value”, this study considers all the activities of the tenants (including those activities conducted off-site), and all the local activity of casual hirers (that is, activity undertaken in the performance of their casual SAC engagement). As all of the tenants of the Centre are headquartered there, branch relationships do not need to be separately considered.

Detail of SAC enterprises included in this report can be found at Appendix 1: SAC Organisations, Programs, Venues and Events.

Financial descriptions of SAC’s scale of operations are therefore interesting to consider. It is known, for example, from the survey of SAC enterprises that in the financial year 2011-12 a total of \$13.3 million in sales was complemented by \$3.1 million in government grants. It was also found that over \$200,000 and 55,000 labour hours were donated by the community in support of SAC activities.

These figures provide a useful basis for comparison with intra- and inter-industry data. For instance, the total sales represent somewhere between five and eight per cent of Tasmanian households’ total expenditure on the Arts in 2011-12 (ABS, 2012a, 2012f), making SAC a significant entity in the State’s cultural landscape.

Meaningful comparisons on the basis of finances alone, however, are problematic for a number of reasons. After all, Tasmanians spent nearly ten times as much on electronic gaming machines (“pokies”) in the same period (Allen Consulting Group, 2011). Does this make the machine gaming industry ten times more “valuable” to the State? Even comparing SAC to one of Tasmania’s largest cultural festivals, the Taste of Tasmania, which has a roughly equivalent sales turnover (MMC Link, 2011), might be misleading given the distinct operation, purpose and reach of the two activities.

Therefore, although understanding financial scale is a necessary precondition to quantifying value, it is an insufficient measure and benchmark in its own right.

## Revealed preferences

The revealed preference method more completely describes the value consumers place on their purchases. **Transaction prices**, for example, reveal a preference when the consumer chooses between purchasing or not purchasing—if a good is purchased at a particular price, it is revealed that the benefit to the consumer is worth at least the price paid. Revealed preferences are effective because they are objective and easily measured, and thus easily comparable. SAC’s sales turnover of \$13.3 million reveals a minimum value that consumers place on its activities and products.

Yet within the Arts, prices are generally presumed to be relatively inelastic; in other words, demand among regular consumers is not proportionately sensitive to increases in price (Sawers, 1993; Seaman, 2006; Zieba, 2009). Analysts attribute this to the recognition that there are comparatively few spending substitutes for specific artistic output, which is confirmed by the widely acknowledged, highly subjective nature of arts appreciation. For the purposes of this study, this implies a significant value that is not revealed by price alone. Illustrating this, the \$0.2 million and 55,000 hours donations of money and time reveal an additional preference of certain individuals to support SAC enterprises above and beyond the transaction price.

To that end, the **travel cost** method uses information on how much visitors spend to get to an activity in order to construct a demand curve, including travel costs and access fees (Yamazaki, Rust, Jennings, Lyle, & Frijlink, 2011). In other words, the “price” of an act of consumption—even one which is nominally free—can be enlarged to include the cost of relevant travel. The number of trips made can also be used to create a travel-cost demand function, allowing analysis of how specific activity characteristics influence choice (Tietenberg & Lewis, 2009).

In the artistic space, this method has been used (occasionally alongside various forms of opportunity costing) to extend the transaction price preference for festivals and events (Maharana, Rai, & Sharma, 2000; Snowball, 2004; Vicente & de Frutos, 2011). Yet although the travel cost method may be appropriate for valuing scarce resources that people are willing to travel long distances for, when applied over short distances and/or to trips with multiple motivators, the discrete values of related activities are often difficult to distinguish (Herrero, Sanz, Devesa, Bedate, & Barrio, 2006). This is certainly the case with SAC, which is centrally located and proximate to a multitude of complementary attractors.

Another limitation of the travel cost method is that although it extends the transaction to include indirect acts of consumption related to the purchase, it still fails to identify satisfaction beyond the sum of purchasing activity. It furthermore fails to recognise non-use value, which will be introduced shortly.

**Hedonic pricing** is a complementary attempt to infer the value of non-market goods from the prices of related goods (Tyrväinen, 1997). It can also involve the measurement of how willing a person would be to pay for discrete changes in an attribute (Malpezzi, 2003). Using multiple regression analyses, researchers can extract the non-use component of value from the related market. This complex procedure is used most often to value environmental resources through, for example, the price of adjacent real estate (Sirmans, Macpherson, & Zietz, 2005).

When valuing artistic output, however, hedonic pricing is not appropriate. Because artistic products are often unique, it is difficult to ascertain non-artistic goods that are suitably related for the purposes of inference. Similarly, because intangible elements—such as aesthetic and artist reputation—contribute so significantly to price, the functional elements of the product are almost impossible to discern.

**Opportunity costing** using the revealed preference methodology, however, is relevant to this study. An opportunity cost is the value lost (or forgone) as a result of making a decision between mutually exclusive choices. On the input side, the donation of 55,000 hours of voluntary labour can be financially quantified as a preference for SAC over alternative uses of that time, such as paid employment. Similarly, use of SAC infrastructure toward artistic ends reveals a preference for that activity over, for example, commercial leasing at the best available market price.

Ultimately, though, because financial descriptions of scale and applications of the revealed preference methodology fail to recognise the utility that people might receive or perceive beyond the point of transaction, they have the potential to significantly underestimate the complete value of a purchase or act of consumption. Other wide-ranging approaches to valuation are thus required.

## Economic impact analysis

Input-output modelling is a more comprehensive method that combines price and scale to estimate cash flows between sectors, businesses, organisations and consumers, through the use of multipliers. As the allocation of public funds to any activity often requires a demonstrable economic benefit to a region (G. Weisbrod & Weisbrod, 1997), the attraction of **economic impact analysis** lies in its ability to produce a monetary measure of the impact of an activity beyond the four walls of the enterprise.

Economic impact studies apply a common methodology, although, there are differences in its application depending on the flows and agents under analysis. Yet because opportunity costs do not occur as market transactions, they are excluded from analysis. Instead, such studies traditionally measure three levels of impact:

- *direct impacts* that arise from within the activity, such as the expenditure and income of the performing organisation
- *indirect impacts* that arise from outside, such as the increase in local business turnover as a result of the activity, and
- *induced impacts* that are spread out or expanded by the rest of the economic system (Heaney & Heaney, 2003).

There is much to be said for using the variables quantified by input-output studies to assess the Arts. These include:

- insight into the financial structure of the sector
- trend identification
- indications of the likely financial effect of demand and supply shocks and other structural changes (such as policy changes) on the activities and institutions measured, and
- the provision of a basis for comparing the financial effects of vastly different projects (Madden, 2001).

Internationally, a number of economic impact studies have explored the extra economic activity generated by the Arts and culture. Cwi (1980), for example, determined the impact on the economy of ten cultural institutions in Springfield, Illinois, by measuring their direct and indirect financial effects; although ultimately it was found that the Arts had only a small—albeit positive—impact on the local economy.



DiNoto and Merk (1993) similarly conducted a state-wide inquiry into the economic importance of the Arts in Idaho using the US Department of Commerce's Regional Input-Output Modelling System (RIMS II). Yet although the database breadth and depth and the quality of the information gathered were sufficient to show the small, but positive impact on gross state product, they were not adequate to support stronger conclusions on the magnitude for an internal rate of return to financially supporting the Arts (DiNoto & Merk, 1993).

The conclusion that can be drawn from these and studies of equivalent rigor is that it is difficult to justify persistent public expenditure on the Arts by traditional measures of economic impact alone (Snowball & Antrobus, 2002). Importantly, though, it has long been held that using economic impact analyses as the exclusive basis for comparing public policy decisions—such as investment in the Arts—has a number of drawbacks. Firstly, the deadweight effects of substitution are often ignored by input-output analyses (European Union, 2003).

In other words, if people didn't spend their money at SAC, they would find something else to spend it on; creating much the same impact, albeit one that is distributed differently. An irreverent finding that pornographic website traffic dips on weekends when major football matches occur perhaps exemplifies this—it found that people still spend their money when there is no football, just on different things (Matheson, 2010)! Unlike the studies cited above, the vast majority of arts economic impact studies reviewed fail to acknowledge this paradox.

Secondly, economic impact studies place sectors into direct competition with each other, creating an irresistible temptation for governments to make funding choices based on the areas or issues that have the “most” economic impact. After all, economic impact studies encourage comparisons to be made between an art gallery, a casino and weapons trade, without distinguishing between the intrinsic, functional aspects of such diverse options (Madden, 2001) and potentially negative externalities (Guetzkow, 2002).

It is further argued that many of the benefits we associate with the Arts, like increased creativity or feelings of well-being, are ‘intangible’ and therefore difficult to measure (Guetzkow, 2002). Even the most accurate economic impact study of a public good (or a good with both public and private good characteristics) will not account for its full value because such a study cannot give a monetary value to the positive externalities which such goods provide (Madden & Bloom, 2004; Snowball & Antrobus, 2002).

Adding to this critique, it is noted that economic impact studies in the cultural sector predominately used artistic purchases as a proxy for consumption, with secondary consideration of the downstream impacts on retail, tourism, transport and accommodation. Yet consumption of the Arts rarely relies on single transactions;

indeed, many acts of consumption require no transaction at all. Similarly overlooked are the indirect transaction costs revealed, such as the cost of commuting to the point of transaction and the cost of time expended.

Finally, because economic impact studies predict (as opposed to evaluate) economic consequences, they frequently suffer from selection bias and can be manipulated to suit political purposes (Baade & Matheson, 2004; Crompton, 2006; Hudson, 2001; Scollo, Lal, Hyland, & Glantz, 2003). This critique has been expressly levelled at such evaluations in the Arts sector (Belfiore, 2002; Hansen, 1995; Lorente, 1996) and has resulted in governments effectively distrusting their outcomes and largely rejecting them as a basis for decision making (Department of Treasury and Finance, 2005; Jefferson & Demicheli, 2012).

As it will be demonstrated, modelling the economic impact of SAC is not without merit, and relevant observations can be made from the data. Nonetheless, exclusively relying on input-output analysis as a basis for quantifying the Arts or artistic endeavours inevitably underappreciates their value.

### **Stated preferences**

Recognising that there is an economic value to the Arts that extends beyond price and impact, Reeves (2002) observes that “capturing the holistic nature, and sustainability of the effects, of arts activity are at the heart of attempts to define the impact of the (industry).” Yet despite a theoretical recognition that the Arts should turn to alternative micro-economic methods of valuation (Noonan, 2004; O’Brien, 2011; Ramsey White & Rentschler, 2012), few seem to have taken up the challenge.

That is not to say that qualitative discourses of the value of the Arts have lost their relevance—see Guetzkow (2002), Ruiz (2004), K. F. McCarthy (2004), Lally (2009), and Markusen and Gadwa (2010) for comprehensive reviews of the literature in this regard. Indeed, art producers and consumers generally prefer qualitative analyses to the language of economics, claiming the latter is inadequate in describing the value of their sector: terms such as “intangible” and “invaluable” are frequently used in its stead.

Stated preferences to some extent bridge this gap, as they are used when the value to a consumer is not directly observable. In this case a survey or some other method is used to elicit a consumer’s willingness to pay by compelling the respondent to state it directly (Bateman et al., 2002). The two prevailing methods for eliciting stated preferences are choice experiments and contingent valuation.

### **Choice experiments**

Choice experiments present a respondent with a series of often pair-wise decisions between different versions of the same good (Hanley, Wright, & Adamowicz, 1998). This is a survey-based technique, but instead of overtly stating their willingness to pay, respondents choose between alternate states of the world which each have a set of attributes and a price. Since respondents choose a bundle of goods, researchers can derive marginal willingness to pay for specific attributes. Therefore choice experiments are best utilised in circumstances when the options under consideration have multiple levels of different attributes (Carlsson, Frykblom, & Liljenstolpe, 2003).

Yet for all these benefits, Throsby (2003) argues quite compellingly that choice experiments are not appropriate for application in the Arts, as artistic consumption is usually a subjective experience, whereby goods are experiential or addictive demand is cumulative. In other words, as every artistic good essentially has a unique level of consumption, it is relatively impossible to rate and group attributes for choice as there is no objective method for distinction between them.

### **Contingent valuation method (CVM)**

In this study, the contingent valuation method (CVM) is preferred to quantify the hidden surpluses that are attributable to SAC.

CVM is a survey based technique used to calculate the perceived value of goods and services through stated preferences. It fundamentally asks consumers how much they would be willing to pay (WTP) for a good, service or experience above and beyond the market price and uses the stated value as a proxy for their satisfaction with it. An alternate approach might ask consumers what they are willing to accept to forego the good; however, as this technique remains controversial (Arrow et al., 1993; Diamond, Hausman, Leonard, & Denning, 1993), this study reluctantly (Ahlheim & Buchholz, 2000; Harrison, 2002) accepts the conservative approach and does not use it here.

Despite the risks associated with its conduct – and in the absence of a more objective alternative – CVM has long been a “widely accepted method for valuing both recreation and other non-marketed benefits of environmental resources” (Loomis, 1987), and has been increasingly applied in the culture and arts sector (Noonan, 2004; E. C. Thompson, 1998; E. C. Thompson, Berger, Blomquist, & Allen, 2002; Throsby, 2003; Venkatachalam, 2004). Indeed, specific research into Arts events has already shown that “when incorporated into... cost-benefit analysis, the valuation of public good characteristics (WTP) was the largest single benefit item” (Throsby, 2003).

## Non-use values

To this point, the methods described have exclusively considered the value that purchasers or consumers of SAC products might ascribe to their use. It is also recognised, however, that non-users might value SAC, even if they do not purchase or otherwise engage with it.

The concept of **non-use value** is often used in economics as means of locating the benefits of environmental resources which are difficult to quantify through the market (Hanemann, 1993). In terms of this project, the non-use value of SAC comes from individuals who do not directly engage with the centre, but who recognise its benefits against possible alternatives.

Why, then, might someone place a value on something they never use? There are four alternative responses to this conundrum recognised in the academic literature:

1. *Option value*—reservation of the right to use the resource at some time in the future (Brookshire, Eubanks, & Randall, 1983; B. Weisbrod, 1964)
2. *Bequest value*—maintenance of a resource for future generations (McConnell, 1983; Walsh, Loomis, & Gillman, 1984)
3. *Existence value*—the satisfaction people receive from knowing that something exists (Edwards, 1992; Larson, 1993), and
4. *Altruistic value*—appreciation of the right of others to use the resource (McConnell, 1997; Milgrom, 1993).

To this, a *fifth category* of non-use value can be added that is an intuitive extension of how people assign value to public goods. This is the value placed on individual willingness to pay for maintaining an asset or resource that is used exclusively by others to create a benefit that is enjoyed by the whole community. In this study it is designated as **shared value**.

To illustrate shared value: I may be willing to pay to enable a festival in my home town—even though I have no intention of attending it—because I know it will create trade and employment opportunities for others, promote social inclusion, and beautify the streetscape.

This is distinct from option value, as I may have no intention of ever attending the festival; and bequest value, as the festival may only be a one-off event. To some extent shared value may clarify existence value; although, the satisfaction that people get from seeing an endangered species preserved in the wild may not be a shared value at all, as the species is designated to never be a consumable resource. In the same

way, altruism implies no benefit to the donor; whereas, shared value recognises the internalising of a real (albeit indirect) welfare return.

## Preferred approach

It can be seen that there are a number of approaches to valuation that each consider a different aspect of the problem. The challenge is integrating them into a coherent framework that is equally logical to both economists and artists. **Cost-benefit analysis** comes closest to satisfying that criterion.

A cost-benefit approach is required to identify the real and opportunity costs associated with expenditure, as well as the benefits that flow, including economic impacts, preferences and avoided costs. Within the cost-benefit approach, avoided cost theory, as it is applied here, assumes that any positive change in public welfare enabled by SAC is a benefit that would otherwise need to be met by the community in order to maintain the status quo.

The cost-benefit approach also demands particular attention to the identification and distinction of the recipients of benefits and/or the bearers of costs. In this study they are divided into three categories: individuals / households; businesses, and government.

Cost benefit analysis is not, however, a static valuation technique. It is a comprehensive means of comparing one alternative to another, and therein lays its limitations for the purpose stand-alone valuation.

Foremost, this study is concerned with estimating the **value** of SAC. This value is defined here to be *the sum of benefits enabled over a fixed period*—in this case, one year. Net value (benefits less costs) is only relevant to the extent that it allows demonstration of the process of how value is created, and to make observations about allocative efficiency.

As a result, the *substitutability* of the costs and benefits is less material than it would be in traditional cost-benefit analysis. This is because this study is not overtly comparing SAC with anything, even if the use of the value arrived at as a basis for future comparison is not precluded. In other words, in valuing SAC, this study is only measuring SAC's gross contribution to the community. The hypothetical presumption that other producers might fill the void left by a non-existent SAC should not alter our understanding of its value at the point in time in which it is measured. After all, valuation is not a zero sum game.

The impact of *time*, too, becomes largely moot. As this study intends to value SAC only on the basis of its 2011-12 performance, there is no need to speculate on the returns that SAC might achieve in future years. This is counter-intuitive to the theories of both

price and cost-benefit analysis, which are highly sensitive to prospective cash flows and the psychological baggage that comes with them.

This does not, however, give licence to be casual with estimates—if anything it imposes a higher standard of rigour, especially in regard to the risk of *over-estimation*. A conservative position is therefore adopted by tending, where necessary, to overestimate costs and underestimate benefits.

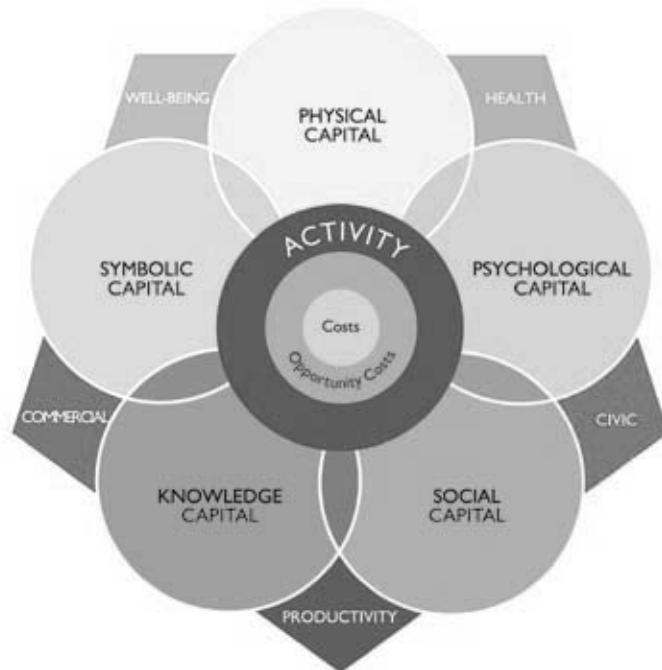
The other refinement made to the cost-benefit approach is the offer of a more complete illustration of the value creation process. This is because the notion of value is relational, in that the meaning and activity of creating value emerges from a complex set of interconnected social relations (Ollman, 1977). Any study of value should therefore focus on the process by which value is created and ascribed (Johnson, 2006). To that end a model is introduced that can not only map the process by which value is created, but—perhaps more importantly—also connects the technically precise if occasionally obtuse language of economics to the nuanced and emotive language of the Arts.

## Value model

Every activity has its inputs, which come at a cost. These include the direct costs of the goods and services which enable it, and the costs of consumption that might otherwise have been spent on alternative activities (for example, the cost of the time an individual spends performing the activity, or the otherwise fallow infrastructure they demand for its performance).

From the investment of these current and opportunity costs, we create the activity; whether it be the 'art' or any other activity of SAC. This activity, in turn, may alter (for better or worse) one or all of the five states of capital in the individuals performing it and the society in which it moves.

Figure 1: Value Model



*Physical capital* refers here to the built and natural environments, as well as individual reserves of things like stamina, strength and dexterity. *Psychological capital* refers to, among other things, a person's reservoir of optimism, hope, resilience and self-efficacy; whereas, social capital is an individual's extant levels of happiness, trust, and engagement with others. *Knowledge capital* is the technical and experiential knowledge gained from an activity; and, *symbolic capital* recognises the extent to which the activity and its artefacts inspire an individual or raises community and individual aspirations.

Capital of any kind, however, is a latent attribute. As such, it does not so much defeat measurement; it is just that its measurement is highly arbitrary and somewhat pointless. It is only when the potential of capital is **expressed** that it has utility—or value. Examples of tangible and measurable expressions of capital include changes to an individual's health, productivity and well-being or changes to commercial and civic net worth, through enlarged (or diminished) profits and/or avoided (or added) costs.

Ultimately, none of the valuation methods previously used in the Arts are rejected; rather they are integrated into a cohesive, holistic framework that allows for convenient, relatable analysis.

### This report therefore uses:

- financial analysis to scope the activity and estimate, among other things, total turnover
- revealed preference methodologies to arrive at estimates of direct and opportunity costs
- economic impact analysis to estimate productivity and commercial outcomes
- qualitative analysis to:
  - o describe the ‘capital’ outcomes of SAC activity and their relationship to inputs and outputs, and
  - o locate those economic impacts which are likely, but beyond quantification in this report given; for example, the relative size and inseparability of SAC from other potential causes of benefit
- econometric analysis to systematically quantify the costs avoided by the community through SAC, and
- contingent valuation to describe the perceived use and non-use values of the collective enterprises.

Note that the specific approaches to primary data collection are discussed at Appendix 2 – Business Survey and Appendix 3 – Community Survey.





## 3. Activity

### Salamanca Arts Centre (SAC)

For the purposes of this study SAC refers to the tenants and casual hirers of the physical premises at 77 Salamanca Place Hobart. SAC is not a single activity; rather, it is an ecology of related activities that can be loosely (but not exclusively) categorised as artistic. The traditional arts are well-represented through an eclectic mix of visual, performance, decorative, applied and literary expressions. These are predominately operated as shop-front retail, entertainment, education or management activities that include exhibitions, performances, festivals, and events.

These businesses are supported in turn by a number of vertically integrated and stand-alone symbiotic enterprises, such as cafes, restaurants and occasional vendors. Excluded from this group, though, are a number of abutting activities that complement SAC (such as the Salamanca Markets and Taste Festival), although the benefit of attachment is considered.

Within the tenant group is an administrative entity, also known as the Salamanca Arts Centre. Governed by a voluntary Board of Directors, a major responsibility of this body is to direct the use of SAC, effectively choosing who may lease and hire the available spaces. This role is not without controversy, as allocative decisions are often as much a subjective valuation of artistic relevance as they are commercially motivated.

Nonetheless, it is estimated that in excess of 250,000 people pass through SAC's doors every year, visiting galleries, exhibitions, performances and community events. The 60 arts organisations based there represent as many as 6,000 artists, members and residents. A complete list of tenants and casual spaces considered by this study can be found at Appendix 1 – SAC Organisations, Programs, Venues and Events.



## 4. Inputs

The inputs that enable and create SAC and its outputs come at a cost. Labour, materials and infrastructure are either directly purchased or donated to that end. Furthermore, given the scarce resources of government, the diversion of public money to SAC implies that other opportunities to improve public welfare are denied—this is another social cost that must be considered.

The total social and economic cost of operating SAC and its related enterprises in 2011-12 is estimated to be \$17.5 million. This includes direct costs of \$16.6 million and other opportunities ‘lost’ to individuals and the community of \$0.9 million.



### Direct costs

The direct costs cited below estimate the change in final demand attributable to SAC in the financial year 2011-12. These are the costs borne by households, business and government in the support of SAC and its activities.

To avoid double counts, intermediate inputs such as the costs of production are incorporated and not counted separately. In other words, the costs of creating a painting, for example, are assumed in the final purchase price. Similarly, the equipment, labour and utility overheads of a performance organisation are assumed to be fully recovered by sales, subscriptions and other income.

SAC and its tenants reported that in 2011-2012 households, businesses and government directly spent **\$16.6 million** in this regard.

### Private expenditure

As consumption, not production, is the unit of input for analysis, the expenditure of Tasmanian households and businesses is captured in the final cumulative turnover of SAC and its associated organisations. The Centre's tenants reported a combined turnover **\$13.3 million** in 2011-12, exclusive of financial grants, donations and sponsorship.

### Private philanthropy

SAC and its tenants receive significant cash donations from both businesses and individuals. Because the receipt of these monies by SAC effectively subsidises the cost of goods and services to households, the expenditure by Tasmanian businesses and households on sponsorship and philanthropy towards SAC is an economic event of significance to this study. In 2011-2012, the sum of **\$0.2 million** was received by SAC in this regard.

### Government investment

In the method applied above, household and business expenditure only references earnings after tax. The component of taxation revenue that is allocated to SAC is another cost that can be reliably defined. SAC businesses reported that in the period studied, the total value of federal, state and local government grants and direct subsidies was equal to **\$3.1 million**.



## Opportunity costs

An opportunity cost is the value lost (or forgone) as a result of making a decision between mutually exclusive choices. Thus, before assessing the economic benefits of SAC, it is useful to consider what we might have gained by electing to use the resources currently employed by SAC to their 'next best' ends. In order to resolve the opportunity cost conundrum, this study supposes that SAC does not exist at all, and that the assets presently devoted to it are put to alternate productive ends.

The opportunity cost of the human, financial and infrastructural resource allocations to SAC can be measured by identifying the potential value in dollar terms of an alternative allocation. The effective cost of volunteer labour 'lost' to SAC in 2011-12 is estimated to be \$775,481. The opportunity lost through the public ownership of SAC assets is \$63,920, and the opportunity cost of government grants, subsidies and tax exemptions is \$60,043.

The gross cost of the opportunities diverted to SAC in 2011-12 is therefore estimated to be **\$0.9 million**.

### Opportunity cost of volunteers

The opportunity cost—or deemed value—of hours donated by individuals into SAC volunteering is estimated using the average weekly earnings for full-time workers, less a 35 per cent marginal rate of tax (Warburton & Hendy, 2006). The average weekly cash earnings for a full-time Tasmanian worker in the private sector are \$866.60 (ABS, 2012d). In the absence of reliable data to the level of detail required, age, wage and gender parity is assumed. Adjusted for the marginal tax rate specified, a conservative estimate of the (take-home) wages forgone is therefore \$563.29 per week, or \$14.08 per hour.

This study applies a simple leisure/work trade-off model that identifies the opportunity cost of one hour of leisure by the income that could have been earned by working for an extra hour. This is consistent with a flexible labour model and assumes that additional work opportunity is available. The survey of SAC enterprises revealed that in 2011-12 a total of 55,068 labour hours were donated; therefore the total opportunity cost to SAC volunteers in 2011-2012 was **\$775,481**.

It would be useful to know the actual working wage that volunteers are earning in order to more accurately measure the opportunity cost of their time. For example, since unemployed and underemployed individuals do not earn a wage, the opportunity cost of their time is very low; and, as they theoretically have a greater time capacity for volunteering, they may be over-represented in the mix of volunteers. To that end, this report is potentially overestimating the opportunity costs of volunteering in SAC; clarifying this would be useful addition to future research.

## SAC infrastructure

The Tasmanian Government owns the premises occupied by SAC, and by not charging a market rental effectively donates the building. Although the upkeep of SAC infrastructure has been considered as a direct cost (which is passed to the consumer in the price of household and business purchases), it is argued that their ownership of these resources incurs an opportunity cost to the Tasmanian people above and beyond that which is borne in the accounts of income and expenditure. A fair estimate of the displaced loss on SAC infrastructure is therefore important to any holistic reckoning of costs and benefits.

The approach taken to the valuation of assets follows the revealed preference method. The landholdings associated with SAC include the buildings and courtyards 'leased' to it by the Tasmanian Government. Although it may be possible to apportion land between alternative uses (for example, SAC's buildings may be important for the preservation of Hobart's historical heritage), this study prefers not to do so because in the alternative case, where these services are not funded, significant arts resources would be potentially denied to the community.

The method for calculating infrastructure costs foremost involves determining the value of SAC assets through the Hobart City Council's (HCC) property valuation base. In this case the value refers to the total capital value the property, excluding plant and machinery, but including the value of the land value (HCC, 2012). The HCC capital valuation of SAC for 2012 was \$6.8 million.

An assumption is then made with respect to the opportunity cost of capital associated with the assets. If, for example, SAC buildings were sold because no value was placed its activities by policy decision makers and the community, then the value of land and buildings could be used to reduce gross government borrowing—the supposed next best alternative use. Therefore the value of the assets of SAC to society is at least equal to the interest payment on the assets.

$$\text{Social asset value} = A \times r$$

$A$  = assets of entity

$r$  = rate of return on assets (government borrowing rate)

The rate of return is determined from the 10 year bond rate of 3.04 per cent, as at 1 July 2012. An estimate of 2.1 per cent is further identified as the long-run inflation rate, based on the final year projection of the percentage change in Hobart Consumer Price Index (CPI) (ABS, 2012e).

$$r = i - \pi$$

$r$  = real discount rate (or cost of capital)  
 $i$  = nominal long-run interest rate (3.04 per cent)  
 $\pi$  = long-run inflation forecast (2.1 per cent).

The long-run cost of capital thus applied is 0.94 per cent. Therefore, the long-run cost of SAC capital for the year is estimated to be **\$63,920**. Privately held SAC assets are not included here as it is assumed that in competitive markets they are optimally employed.

### Government grants, subsidies and tax exemptions

It is further argued that the allocation of government grants, subsidies and tax exemptions to selected SAC enterprises incurs an opportunity cost to government beyond the direct costs already considered. As with SAC infrastructure, the assumption made is that the next best alternative use of these monies is to reduce gross government borrowing.

The total government expenditure on SAC in 2011-12 was \$3.1 million. Using the long run cost of capital of 0.94 per cent calculated for SAC infrastructure, the opportunity cost of government grants and subsidies is therefore \$28,825.

Many organisations within SAC are also classified as not for profit (NFP) by the Australian Taxation Office (ATO). As such, they use any profit made to further the purposes of the organisation, as opposed to distributing profit to the organisation's owners, members or shareholders (ATO, 2011). By granting these organisations tax exemption, the Australian Government is forgoing potential tax revenue, which is another opportunity cost.

In order to calculate the value of forgone revenue, the corporate income tax rate of 30 per cent (ATO, 2012) is applied to the reported turnover of the NFP organisations. The total reported 'profit' of the NFP organisations within SAC (sales turnover net of expenses) in 2011-12 was \$106,662<sup>3</sup>, which results in forgone tax revenue of approximately \$31,099.

Therefore the total opportunity 'lost' by all tiers of government through their support of SAC and its tenants was **\$59,924**.

<sup>3</sup> Sales turnover in relevant businesses of \$520,300 discounted by a productivity factor of 19.9 per cent (see *Productivity Benefits*)

## 5.Arts Capital

In a study such as this (with its stated economic purpose), the term capital is most likely to be associated with its neo-classical use in economics, where capital and labour are the most common inputs theorised in the production of goods and services. The term capital in economic analysis is thus used to understand the work of tools and machines at large, with aggregation being its most useful aspect, as well as its main weakness.

This study departs from that traditional understanding to largely consider capital as an output of the production process. This is consistent with recent attempts to understand capital as more than skills and tools, which will be discussed shortly. The epistemological appreciation of capital as a 'stored potential' is not, however, rejected by this approach.

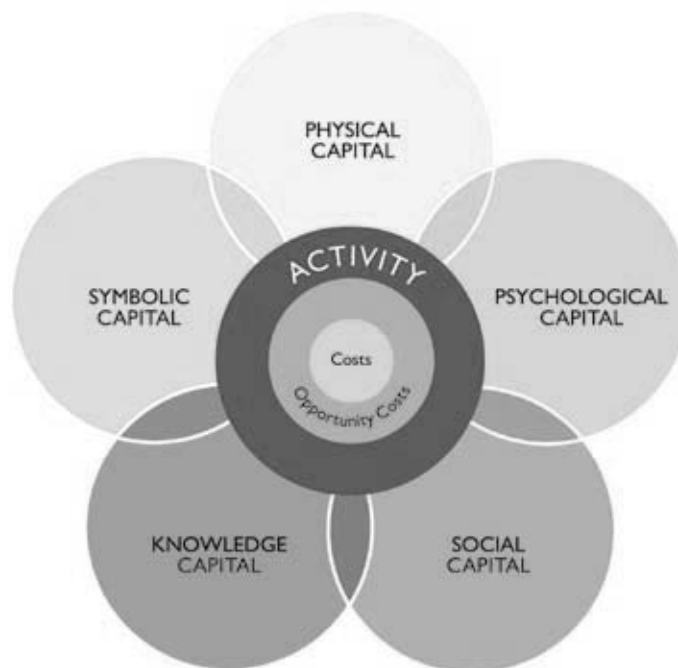
To illustrate this, the capital stored in a widget-making machine is quantified by its potential to produce X amount of widgets. The more machines you have the higher your production potential is. Importantly, though, that value is conserved in the machines, and remains unchanged for the most part. The actual economic value depends on a significant number of environmental variables, including, among other things: the quality of raw inputs; operator skill; and wear or tear (or decay).

The question must therefore be asked, which is more significant to this study's stated purpose of valuation: the potential that is accrued, or how that potential is ultimately expressed? Hold that thought...

Contemporary academic theory is replete with models that purport to illustrate different aspects and interpretations of capital. The following list is by no means an exhaustive catalogue of the varieties discussed today:

- Aesthetic capital (Anderson, Grunert, Katz, & Lovascio, 2010; J. Thompson, Alvy, & Lees, 2000)
- Cultural capital (Bourdieu, 1993; Johnson, 2006)
- Economic capital (Laeven & Goovaerts, 2004)
- Erotic / sexual capital (Hakim, 2010; Michael, 2004)
- Human capital (Marx, 1859; Smith, 1828)
- Intellectual capital (Stewart & Ruckdeschel, 1998; Teece & Teece, 2000)
- Knowledge capital (Carr, Markusen & Maskus, 1998; Löf & Heshmati, 2002)
- Natural capital (Costanza et al., 2007; Ress & Wackernagel, 1996)
- Psychological capital (Luthans, Youssef & Avolio, 2007)
- Social capital (Putnam, 2000; Woolcock, 1998)
- Spiritual capital (Finke, 2003; Iannaccone & Klick, 2003)
- Symbolic capital (De Clercq & Voronov, 2009; DiMaggio & Useem, 1978)

Therefore if ‘capital’ in this study refers to the potential stored in an entity that can be either drawn down or employed in perpetuity; Arts capital must allude to any individually endowed capacity that is attributable to sport and physical recreation. And, although there is nothing to preclude its measurement relying on one or more of the other forms of capital established in the literature, for Arts capital to be distinct it must identify a unique suite of outcomes that can be traced back to the activity, and by extension the activity inputs (or costs).



Arts capital is understood here to be a non-fungible attribute that accrues discretely within individuals, and collectively in firms and the community. It is only when citizens collectively express their capital that its effect can be quantified and reconciled with costs to arrive at estimates of value. Importantly, users should be mindful that Arts capital can be expressed positively (for example, to promote social inclusion (Karkou & Glasman, 2004; Kinder & Harland, 2004)) or negatively (for example, to promote harmful or offensive ideals (Mey, 2007; Portal, 2005; Potter, 2006)).

Arts capital therefore lies at the nexus between inputs (costs) and outputs. Economic expressions of Arts capital will be unique to each society, even though the potential – for good or bad – within Arts capital is theoretically uniform. In addition to this, it can be taken as axiomatic that, all things being equal, the more widespread and/or intense the participation of the community, the greater the impact the Arts will have on these factors (Guetzkow, 2002).



For that reason, the value of Arts capital per se is irrelevant; and no attempt is made to quantify it. Nevertheless, the separation of Arts capital is not merely an indulgence of modelling and generalisation. Instead, Arts capital serves as a heuristic tool to explain the different forms of input that are at stake when studying sport and recreational activities.

It should also be noted that the definition of Arts capital proposed is not intended to rebut alternative descriptions of artistic capital; for examples, see Galenson (2006), Brosio (1994) and Schneider and Pommerehne (1983) among others. The difference lies in that instead of trying to distinguish artistic value from the traditional economic forms of capital, this study integrates all definitions to embrace and capture the holistic spectrum of Arts value.

The discussion that follows thus connects already defined expressions of capital in the context of the Arts. It does so by interrogating the literature on the Arts, isolating discrete references to value, and illustrating the way in which they relate to both the Arts specifically and to each other.

## Physical capital

### Infrastructure

Physical capital traditionally refers to factors of production. In addition to the inputs of land and infrastructure that artists and enablers make productive use of, outputs include the urban and natural environments that are enhanced through artistic activities.

The Arts provide purpose-built spaces that facilitate the interchange of artistic activities. Theatres, dance studios, art galleries, music and concert halls may not only be vital arts delivery environments, but be works of art themselves. The Sydney Opera House and the Guggenheim Museum in Bilbao are two such examples. These physical spaces encourage civic pride, act as symbols of cultural ambition, encourage participation in the Arts, and foster urban regeneration (Miles, 1997; Plaza, 1999).

In addition to purpose-built arts environments, there also exist countless adapted buildings which achieve equivalent outcomes. These include, but are not limited to, halls, warehouses, residential houses, palaces, railway stations, and underground rooms. The singular presence of these buildings can enhance and strengthen communities by increasing the sense of belonging and historical continuance. The arts tend to emphasise these spaces in powerful ways through promoting the existing qualities of the buildings and encouraging engagement with them.

The arts can also have a positive impact on open-air spaces. Public arts, music events, festivals, theatre and dance situations can all bring life to public space not only as a

finished product but as interactive engagement spaces. Children's play structures, sculptures, workshops, choirs and music making are just some of the activities that make a built environment 'liveable' (Marcus & Francis, 1997).

Moreover, there are countless examples of Arts activities that encourage interaction with the natural environment: sculptural exhibitions on beaches; visual arts experiences in the wild; theatre and dance in natural amphitheatres; and, festivals that incorporate the sea, are all tangible examples. These interactions bring people into new contact with spaces that can be refreshing, inspiring and rewarding; creating an emotive response that is enhanced and amplified by the integration of art (Thornes, 2008; Weilacher, Hunt, Bann, & Gloth, 1996).

In terms of infrastructure, SAC consists of several repurposed historical buildings, as well as a few tailor-made venues. These combine with the open-air spaces, such as Kelly's Garden, to create a unique creative atmosphere.

## Product

The majority of SAC artists in studio, galleries and retail stores produce tangible goods and services that are sold for income. Like the infrastructural resources, these works of art have all the characteristics of capital assets.

Thompson (1999), for one, classes these physical outputs as cultural property, as they are 'manufactured' and sold for profit. Throsby (1999) contends that their influence on human progress generally and on economic transactions specifically are not adequately captured as one of the conventional forms of economic capital, and suggests that a separate concept of cultural capital is required in order to formalise the role of such phenomena in cultural and economic affairs.

It is argued here, however, that for the purposes of valuation, it is sufficient to recognise their place within the other expressions of physical capital. This is conditional upon the quantification of such assets recognising their value beyond price.

## People

Changes to the human, physiological state of capital are also enabled by the Arts. These physical benefits include alterations to individual health, well-being, cognitive and other physical states (including for example, stamina, dexterity and erotic capital). Included here as physical capital, the concept extends Bourdieu's (1986) primarily aesthetic value of appearance to include intrinsic measures of capacity such as fitness and cognitive accretion.

To illustrate this, many types of arts activity deliver aerobic exercise. Dancing is but one that provides intense workouts, putting the body through sustained physical activity. At a professional level the physical demands are especially high (Flores, 1995; Gillett

& Eisenman, 1987; McCord, Nichols, & Patterson, 1989). Many actors and performers must also reach certain levels of physical fitness to be able present their work, and physical training is very much a part of their practice (Aaron, 2010). Performance pieces, for example, require a great deal of stamina to present well; decorative artists need a high degree of fine motor coordination; and in the visual arts, too, many artists must be physically fit to execute their work, especially in sculpture and installation art. Even people who engage in the fairly passive pursuit of choral singing experience better breathing and posture, as well as increased immunity levels (Clift & Hancox, 2001; Williamon, 2004).

Though the majority of SAC tenants do not have a body development objective, there are a small number of performance arts groups who do directly engage the physical (Terrapin Puppets, Tasmanian Theatre Group, Festival of Voices and MADE Dance Company are examples). The activity of other SAC artists (sculptures, painters and musicians) similarly alters the stock of personal physical capital.

Finally, one cannot avoid the intuitive intersection of psychological capital with physical capital's impact on cognition. After all, the Arts by definition provide many direct interfaces for intellectual engagement, including books and publications, visual experiences, theatre and dance experiences, film, television and musical events. For both the artists that make the works and the people who receive them, the Arts act as a challenging interface which work as a conduit for exploration into the human condition (Dryden, 2004; K. F. McCarthy, 2004).



## Psychological capital

Psychological capital is a recent construct arguing that the states (as opposed to dispositional traits) of self-efficacy, hope, optimism and resilience can be amassed in the individual and converted into commercial gain (Luthans et al., 2007). The exploratory work on psychological capital done thus far suggests that in positive iterations it can enhance workplace performance, individual commitment and satisfaction, and—as a contagion—effect constructive organisational change (Luthans & Youssef, 2004). The work of Luthans and colleagues, however, has been confined to linking positive organisational climate with psychological capital, and as yet has not investigated its place in external sources.

Nonetheless, the relationship between the Arts and the states of psychological capital is well understood within artistic communities; indeed, a number of artistic works and events are driven by these very themes (Ahn, 2010). Even when art is critical of, and sometimes hostile towards society, it is still constructive to the extent that the artists are promoting awareness and discourse on issues of importance (DCMS, 1999). For many, the mere act of creation and completion of an arts project provides an opportunity to gain some positive public recognition, improving their sense of control over their life and self-concept (Fiske, 1999; E. Jackson, 1979; Randall, Magie, & Miller, 1997; Seham, 1997; Weitz, 1996). Corresponding attendance at arts events may also be stimulating and relieve stress, leading to improved happiness and life satisfaction (Guetzkow, 2002).

Yet despite this, at some levels the Arts are somewhat notorious for diminishing and even exploiting fragile psychological states—Vincent Van Gough, for example, did not die a happy man. The ‘struggling artist’ remains a celebrated archetype, as does the drug-abusing rock-star, the socially estranged writer and the obnoxious actor.

Elements of society further stereotype artists through humour and malice on the basis of gender, sexual orientation and appearance without regard to the psychological consequences of such actions (Garrard, 1976; L. A. Jackson & Sullivan, 1989); while popular art in particular regularly stands accused of perpetuating inappropriate typecasts (Jacobs & Evans, 2012; Lemons, 1977). Incidences of stress, depression and even neurological disorder are well-documented in artistic communities (Bogousslavsky, Boller, & Hennerici, 2005; Casey, 2001; Marchant-Haycox & Wilson, 1992), even if few would attribute artistic engagement as a causal factor of significance.

The role of SAC in this regard is therefore critical. On the one hand, the SAC Board attempts to optimise the positive activities of the Centre, not just for producers and enablers, but also for members of the general community. The tenant appointment process deliberately selects-out activities likely to diminish the stores of psychological

and other capitals by preferring individuals and organisations that enable positive outcomes.

Complimenting this, the vast majority of SAC enterprises promote self-efficacy, hope, optimism and resilience within their communities. This is particularly true of those enterprises and collectives whose main purpose is to enable fellow artists. In the same vein, the self-reported sense of community and common purpose among SAC residents helps to sustain and motivate participants at all levels.

## Social capital

Social capital is defined by the OECD as the norms and social relations embedded in the social structures of societies that enable people to co-ordinate action to achieve desired goals (Grootaert, 1998). Both qualitative and quantitative instruments used to measure social capital generally cluster their enquiry into the measurement and operation of trust, happiness, inter-personal networks and civic engagement (Dudwick, Kuehnast, Jones, & Woolcock, 2006 and Woolcock, 2006; Grootaert & Van Bastelaer, 2002; Putnam, 2002). There is also a broad base of evidence that social capital is a positive contributor to individual (Narayan & Princhett, 1997), organisational (Sabatini, 2005) and community yield (Woodhouse, 2006; Woolcock, 1998). Social capital has been suggested as an explanation for why some communities work better than others, with resulting economic, social and health benefits (Earthy, Maltby, Arber, & Cooper, 2000; Jermyn, 2001).

The Arts are proven enablers of social capital and the attainment of important community goals (Goss, 2000; Matarasso, 1997; Williams, 1995). Arts events typically intend to bring together disparate members of the community that have predisposed cultural commonalities, tightening associative bonds through multi-levelled interactions, and encouraging cooperation and group work. For example, individuals who attend the same musical events or enjoy the same kind of images tend to see others in that category as people they can relate to, understand and even trust. Through common artistic interests, people can immediately bond with those who would otherwise be strangers by exchanging the cultural codes that they both share.

Similarly, the artistic production process is often collaborative, allowing groups to become closer and inspire loyalty and trust in one another (Rentschler, Radbourne, Carr, & Rickard, 2002; Williams, 1995). Another powerful use of the Arts in society is its capacity to form bridges between people who might ordinarily have difficulty communicating (DCMS, 1999; Walker & Scott-Melnyk, 2002). Community groups

and individuals coordinating efforts learn organisational skills, how to navigate the bureaucracy, and build relationships with municipal and regional governments (Williams, 1995). The arts also increase the tolerance of other cultures (Matarasso, 1997; Williams, 1995). For example musical projects between different races and cultural groups who have historically been in conflict can foster communication in a unique way. Even activities as simple as singing together create a feeling of universal community.

Many of SAC's enabling organisations consist of extended networks of artists and facilitators, which results in a sense of belonging. The biennial Australian Wooden Boat Festival is an example of a globally dispersed community that is bound by a common interest. Indeed, SAC fosters this attitude. While the individual businesses offer SAC legitimacy through their productive activities; operating in a central location with common goals creates identity and motivates engagement. The diversity of SAC events and activities are also ultimately about promoting happiness; whether it be theatre performances, touring exhibitions, or the Friday frenzy that is Rektango.

If it is therefore accepted that social capital has the potential to enlarge the wealth and well-being of communities—and that the Arts are a valuable source of the same—then the catalytic potential of the Arts is significant to any holistic conceptualisation of value.

## Knowledge capital

Engagement with the Arts undoubtedly improves individual and organisation skills, talents and knowledge (Fiske, 1999; Guetzkow, 2002). Knowledge capital is subdivisible into two forms: technological and experiential (Hiser, 1998). As a catalytic variety of capital, the technological or experiential knowledge acquired through the Arts is transferable to other domains. It is argued here that the skills training afforded by the Arts, particularly for those in enabling roles, is a form of technological knowledge. Arts exposure to teamwork and leadership enlarges an applicable body of experiential knowledge in an individual that will also inevitably realise productive gain (Keogh, Mulvie, & Cooper, 2005 2005).

In an arts organisation or collection of arts organisations there is an accumulation of knowledge and information about methods of best practice, which are disseminated both within the collective and throughout the wider community. This information is distributed in two ways: through passive distribution channels like reports, books, project descriptions, models, charts, videos, web sites and many other forms of information storage; but also through more active distribution systems that can be found in interactive blogs, telephone calls, emails, newsletters, meetings, lectures and seminars.

Indeed, there are a broad range of skills constantly being passed on through arts activities. These include arts-specific skills such as acting, painting, singing and music. Individuals directly involved in creating or organising artistic activity may learn skills that they did not previously have and may demonstrate greater creativity (Fiske, 1999; Hetland & Winner, 2001; Randall et al., 1997; Seham, 1997; Weitz, 1996).

Universities, TAFE colleges, schools, training colleges and private training groups also provide a wide range of training opportunities in all aspects to the Arts. In addition to these, many arts centres, groups and organisations offer shorter courses in specialist subjects with certificate qualifications, as well as providing official and unofficial training positions and apprenticeships. However it is important to note that with respect to occupations in the Arts, schooling may not increase workers' earnings to the same extent as in other occupations (Filer, 1990).

For that reason, although artistic producers may elect to pursue their work free from commercial manipulation it is also important for them to learn about commercial structures in order to survive in the marketplace. After all, the credentials required to succeed in the Arts today go well beyond a love of music, dance, film or theatre. Producers must embrace effective management techniques, accounting and budgeting skills, as well as participate in strategic and operational business planning, and marketing and product exposure. Successful arts management skills are critical to the continued vitality of modern cultural institutions and arts organisations (Martin & Rich, 1998).

At the experiential level, arts-integrated school curricula are known improve academic performance and student discipline (Fiske, 1999; Remer, 1990). On the whole, education studies show that kids engaged in an arts class will do better in other subjects, and that an arts-integrated curriculum improves school performance (Albert, 1995; Fiske, 1999; Hetland & Winner, 2001; E. Jackson, 1979; Remer, 1990; Weitz, 1996). The basic reason for this may be that children find learning through artistic/creative activity much more enjoyable, and so they will have an easier time engaging with the material (Guetzkow, 2002).

To that end, the networks at SAC promote a strong culture of skill development. Affordable spaces combined with the large pool of human resources mean artists who would not otherwise have the opportunity to gain valuable skills, do so. Many SAC enterprises encourage emerging artists through voluntary and casual employment, giving them the opportunity to gain experience directly related to their artistic career aspirations further develop their skills.

Artists and organisations across the Centre are also encouraged to take on interns to mentor and share skills, and some, such as SPACE Dance even offer accredited qualifications. Facilitating the transition from hobbyist to professional, the SAC parent also demands of its tenants annual business plans to ensure that they meet minimum standards of commercial practice.

## Symbolic capital

Symbols ultimately indicate what is valued in society (Goodman, 1976). When symbols become more sophisticated and interact in multi-layered symbolic landscapes, they act as brands, rallying points, icons and emblems that convey meaning in unique ways; short-cutting more prosaic forms of expression. Symbols form semiological languages that can be repeatedly utilised in order to deepen understanding (Whitehead, 1985).

Symbolic capital refers to the gestalt models, metaphors, archetypes, and stories that help a society identify with positive development. Symbolic capital can reside in infrastructure (such as monuments and other public works), products (such as books, paintings and recordings), and individuals (such as performers and promoters). The Arts are one of the main sources of symbolic capital stock in communities, which can both inspire a society or individual, or more tangibly give a person or group something to aspire to.

Bourdieu (1993) was among the first to use the term symbolic capital to describe the value derived from being known and recognised, a concept synonymous with standing, good name, honour, fame, prestige and reputation. In brand terms this is a precise fit with goodwill; for example, the symbolic value of the brand explains why a person is prepared to pay more for a Picasso than an equivalent copy.

For the individual or resource so endowed, symbolic capital acts less as a driver of productivity and more reliably as a conductor. A person is not necessarily able to produce more widgets as a consequence of their symbolism, but their symbolic capital has a momentum that exponentially both attracts additional enterprise and becomes an inspiration for subsequent industrial performance. This is because symbolic capital is used by external actors as a means of legitimising behaviour and endowing upon the consumer a form of distinction that will be recognised by their peers (Flint & Rowlands, 2003).

The Arts alter the stock of symbolic capital in three major ways. Firstly, they produce works that give insights into human endeavour, justice, frailty and other social themes. As such they may cause a respondent to change their own outlook or behaviour, for better or worse. People producing or consuming local arts projects might also feel an increased sense of pride and appreciation, for example of their town and community (Williams, 1995).



Secondly, the Arts are an effective method of expressing our histories, through such media as photographic exhibitions, personal recollections, books and stories, plays and films (Haskell, 1993). These not only record our past, but give symbolic interpretations—on a scale from fact to fiction to myth—that inspire present thinking. When a civilisation is examined by future generations, it is often the Arts which provide vital information about the feelings and thought within a particular era (Dryden, 2004).

Finally, the Arts can also produce visions of the future that affect the way forthcoming paths are determined. They are often symbolic imaginations that help individuals and society understand more about human functions and interactions (Bascom, 1955). Ultimately, artistic works heighten our intellectual interaction with the world and enhance emotional well-being as well as psychological health (Cold, 2001; Ulrich, 1979).

Many of the activities of SAC illustrate and interpret Hobart, Tasmania and the wider world, offering valuable insights into the various communities. As a symbol of the Arts, and the Arts in Tasmania, SAC has the potential to shape outsider perceptions of both the industry and society, either positively and negatively. Taking these responsibilities seriously, the parent organisation works actively through the channels already described to optimise its own symbolic capital, and that of its stakeholders.

## 6. Value

The Arts alter the states of physical, psychological, social, knowledge and symbolic capital in individuals, firms and communities. This is then converted into a set of economically valuable outputs that contribute to the welfare of all. In 2011-12, it is estimated that SAC enabled at least **\$52.5 million** worth of community benefits.

It should be noted that many of these benefits are significantly underestimated. For example, the replacement cost of volunteers (a civic benefit) assumes that the labour donated could be replaced at the local median wage; whereas SAC producers claim that the replacement cost would in practice be much higher. Similarly, non-user benefits enjoyed outside the geographic bounds of Greater Hobart are not considered.

### Health benefits

Despite the wealth of evidence that the Arts demonstrably improve health outcomes for individuals, a reliable quantification of this benefit could not be found. Using conservative analogous estimates, it is supposed that if active SAC engagement adds to one's quantity of life by one-quarter of one per cent per year, then the economic impact of that would be **\$3.2 million**.

This benefit accrues to individuals and is distinct from the savings made by government and private systems of health care.

### Civic benefits

The cost of replacing SAC volunteers is conservatively estimated to be \$1.6 million. If government or other civic institutions did not meet this shortfall, the absence of voluntary labour would increase the cost of SAC goods and services to households by as much as ten per cent.

Programs delivered by SAC additionally saved the community \$0.2 million. Taken together with the costs avoided by systems of health, social and criminal justice, as well as the value added to the Tasmanian 'brand', the sum of civic benefits enabled by SAC is estimated to be **\$2.4 million**.

Additional civic benefits are identified but remain unquantified by this report.

### Productivity benefits

If consumers of the Arts are healthier and happier as a result of their purchases, to what extent does this benefit transfer to their employers? In other words, how much more productive are people as a result of their SAC engagement? Using the Tasmanian Government's proxy of two per cent, it is found that in 2011-12, that benefit was worth at least **\$7.5 million**.

The broader contribution of SAC and the Arts to community innovation is discussed without quantification.

### Commercial benefits

Using the Tasmanian Regional Input Output Matrix (RIOM) model, it is estimated that the impact of SAC expenditure by households, business and government was to increase output in the Tasmanian economy by \$25.2 million. The increase in wages, rents, profits and taxes associated with the increase in production is estimated to have increased Tasmania's gross state product by **\$11.7 million** (compared to an alternative case in which those resources were idle due to a lack of demand).

In 2011-12 SAC delivered a total of \$3.3 million in profit to Tasmanian businesses. The expenditure associated with SAC is also estimated to have generated in the order of 190 jobs, both full-time and part-time, to the value of \$6.0 million. Taxes generated by SAC-related or motivated expenditure was \$2.4 million. This is nearly as much as the identified expenditure by all levels of government on SAC of \$3.0 million.

### Well-being benefits

Although a person may pay \$750 for a work of art, they might be willing to pay \$2,000 for the same item, because of the amount of satisfaction they receive from the transaction. The difference of \$1,250 would be a real economic measure of their 'consumer surplus', or the benefit in well-being they internalise. The community benefits enabled by an artistic enterprise may be further appreciated by non-consumers.

This study uniquely identifies here an annual well-being surplus (the sum of use and non-use values) of **\$27.7 million** attributable to SAC in 2011-12.

## Health benefits

The discussions of physical and psychological capital introduced evidence that the Arts can improve a person's health (Bygren, Konlaan, & Johansson, 1996; Guetzkow, 2002) and therefore their quantity of life (life span); through, for example, reducing incidences of depression and increasing physical fitness. Similarly, either engaging in creative activity or simply attending some kind of artistic event appears to improve physical health (Angus, 1999; Baklien, 2000; Ball & Keating, 2002; Bygren et al., 1996; HDA, 2000; Thoits & Hewitt, 2001).

On average, healthier people are also more likely to volunteer in arts programs, but that activity likely improves their health as well (Guetzkow, 2002; Thoits & Hewitt, 2001). Arts engagement further widens and strengthens social bonds (social capital), which in itself has a demonstrably positive impact on health (Baklien, 2000; Ball & Keating, 2002).

The sum of consumer health benefits enabled by active engagement with SAC in 2011-12 is estimated here to be \$3.2 million.



## Quantity of life

Developed by the World Health Organisation (WHO), the Disability Adjusted Life Year (DALY) is a measure of the overall burden that disease places on a society. Previously, countries measured the impacts of disease by the number of life years lost; DALYs combine this measure with the cost of years lived with disability (WHO, 2012). The DALY therefore estimates the impact of premature morbidity and mortality on a population in a single, comparable metric.

One DALY can be thought of as one lost year of 'healthy' life. According to the WHO, the sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability (Mathers, Fat, & Boerma, 2008).

Although the epidemiology literature considers closely the effect of physical inactivity on premature morbidity and mortality (Berentzen & Sørensen, 2007; Blair & Brodney, 1999; Kokkinos, Sheriff, & Kheirbek, 2011), it is yet to develop like metrics for the physical benefits of interaction and engagement with the Arts. This is despite the wealth of evidence that it has some demonstrable outcome (Cox et al., 2010; Osborn, 2012; Ruddy & Milnes, 2009; Serlin, 2009; State of the Field Committee, 2009).

### How many DALYs are 'gained' through engagement with the Arts?

In the absence of reliable data in this regard, it is quite conservatively suggested that active engagement with the Arts (that is, making an Arts related purchase, as opposed to passive consumption) in a single year will increase an individual's quantity of life by an average of one day. This is approximately one-quarter of one per cent of one year, or 0.034 per cent of the average life expectancy (ABS, 2012c).

This figure can be contrasted with a study of Tasmanian DALYs attributable to physical activity by specific cause, which was significantly higher at around 2.5 per cent (Muller, Wadsley, Adams, Arthur, & Felmingham, 2010).

### What is a day worth?

Although putting a dollar value on the life of a person may appear mercenary, it is a necessary and widely accepted practice in policy. Because there are only a finite number of resources available to society, trade-offs are inevitable. For example, Australians accept that the costs of mandating the use of seatbelts in motor vehicles is worth the benefits received in terms of lives saved, whereas the cost of making everyone drive at 10 kilometres per hour is seen to be prohibitive.

The statistical value of a human life is therefore an estimate of the financial value that society is willing to pay to reduce the average number of deaths by one. There are a

number of approaches to calculating this. A review by Abelson (2008) found that in studies relevant to Australia, estimates ranged from \$3 million to \$15 million, depending on the methodology applied. An Access Economics (2006, 2008) report on the cost of obesity, for example, uses \$6 million as its statistical value of life.

The Australian Government's Office of Best Practice Regulation (OBPR, 2008) conservatively adopts \$3.5 million (in 2007 dollars) as the value of statistical life based on a healthy person living another forty years. This is accepted as the appropriate standard to use. Discounted for present value and indexed, in accordance with OBPR advice, to 2012 prices (ABS, 2012e) the value of a statistical life year (VSLY) is presently \$169,323.

Using the community survey<sup>4</sup>, it is possible to estimate that there were 33,818 unique, purchasing visitors to SAC in 2011-12. It was also observed that their SAC purchase were, on average, 20.5 per cent of their total Arts purchases. Thus the financial impact of the health benefits of SAC consumption in 2011-12 can be calculated by applying the following benefit multiplier:

$$\text{Avoided DALYs} = \frac{v \times \text{VSLY} \times a}{365}$$

**v = number of unique, purchasing visitors (33,818)**  
**VSLY = value of a statistical life in 2011 prices (\$169,323)**  
**a = proportion of arts purchases attributed to SAC (20.5%)**

Applying this formula, this study concludes that as a result of their active consumption in 2011-12, SAC patrons enjoyed an additional quantity of life to the value of \$3.2 million.

The equivalent benefits received by passive consumers (people who enjoyed SAC health benefits without paying for them) are not considered by this report. Given the potential size of this undisclosed market, the total of \$3.2 million is likely to be a significant underestimate. This is recommended as a direction for future research, as is a more rigorous exploration of the contribution the Arts make to life-span.

## Civic benefits

A number of civic obligations are relieved by the extent to which a society participates in the Arts. For example, if a person successfully participates in an Arts therapy program, then it is reasonable to assume that a corresponding need for care is avoided by those who are better off as a result of their Arts participation. Similarly, it is known that the Arts can be a means to both divert and reform clients of our institutions of criminal and social justice.

The delivery of the Arts is further subsidised by the labour of volunteers, which relieves other civic bodies (such as governments and community groups) of the need to directly provide these services. Arts events and activities also raise Tasmania's off-shore profile, thereby adding value to the Tasmanian 'brand', and they contribute directly to the community's sense of well-being.

The sum of these benefits to the community in 2011-12 is estimated to be **\$2.4 million**.

This total does not include an empirical estimate of a range of other civic benefits that were outside the scope of this report, including the democratic value of the Arts. For this reason it can be taken as an underestimate.



## Health system

There are a number of formal systems of health care that are paid for by society through taxes and personal expenditure. These include all private and public, recurrent and capital expenditure on hospitals, medical services, dental services, patient transport services, other health practitioner services, community and public health services, medications, aids and appliances, health research and the administrative systems that support these services. As specific transaction costs, they are distinct from the quantity of life, or DALY, costs, which are—as they have been calculated here—a societal willingness to pay.

In a separate study, Muller et al. (2010) estimated the cost of physical inactivity to Tasmania's entire system of health care to be \$69.0 million. This represented 2.4 per cent of the total public and private health care spend in the state. It was also a considerable underestimate as it did not include the opportunity costs of private carers, government savings in welfare payments, or taxation revenue potentially gained through the realisation of these opportunity costs.

Indexed from 2010-11 figures (ABS, 2012e), the total public and private expenditure on health care in Tasmania in 2011-12 was \$3.1 billion (AIHW, 2012). This equates to just over \$6,300 per head of population (ABS, 2011). Of the 33,818 unique, purchasing visitors to SAC in 2011-12, it is estimated that three-quarters, or 25,364, were from Greater Hobart. For the purposes of this calculation, the conservative assumption is made that other SAC consumers sourced their health care outside of Tasmania.

Continuing the one-quarter of one per cent assumption of the previous section—and further discounting by 20.5 per cent (the SAC component of total Arts expenditure)—in 2011-12, the wider community avoided \$0.1 million in health system costs as a result of individuals' engagement with SAC.

## Justice

The Arts have proven to be a significant contributor to our formal and social systems of justice. Specific programs have been very successful at both diverting (Clawson & Coolbaugh, 2001; Silbert & Welsh, 2001) and rehabilitating (Brewster, 1983; Halperin, Kessler, & Braunschweiger, 2012; Tocci, 2007) people from criminal conduct. Despite some criticisms of the quality of such programs (J. Thompson, 1998) and the reliability of their outcomes (Leedy & Ormrod, 2005; Slayton, D'Archer, & Kaplan, 2010), there remains a body of evidence that argues that when properly employed (P. McCarthy & Britain, 2003; Woodward, Sloth-Nielsen, & Mathiti, 2007) the Arts can be a more effective discouragement to deviant behaviour than, for example, the threat of incarceration (Wheeler & Denzin, 2011).



The application of the principles of crime prevention through environmental design, such as appropriately designed artistic installations, can also reduce incidences of urban crime (Jermyn, 2001).

The Arts also impact on the broader construct of social justice. As demonstrated in the section on Commercial Benefits, the employment opportunities created by the Arts can relieve the welfare burden of the state (Hall, 2000). In a similar vein, the Arts are regularly used as a driver for charitable fundraising (A. Kelly, 2001; Moir & Taffler, 2004). The ideal aims of social diversity and inclusion are also viewed as potential beneficiaries of Arts activity (Bell, 2010; Dewhurst, 2009; Felshin, 1995), and the Arts are often extended in this context to connect people with other social and community services (Jermyn, 2001). The reader is nonetheless cautioned that the Arts do not inherently realise the full fruits of, for example, multiculturalism, and may even be counter-productive to this purpose unless directed (Rizvi, 1994). Despite this, where social diversity or inclusion is a planned outcome, the Arts can act as a progressive vehicle for its delivery (Matarasso, 1997).

It is consequently reasonable to assume that if there were no arts activities in Tasmania, then the social and criminal justice burdens of society would be greater than they currently are; yet, there is no attempt in the literature to economically quantify this benefit.

In an attempt to recognise this benefit in this study, SAC businesses were invited to report their total expenditure on programs they delivered for at-risk or disadvantaged community groups. The **\$0.2 million** spent in this regard is an obvious cost avoided by the state, and this report confines itself here to suggesting this is the observable benefit. Nevertheless, a direction for future research would be to implement a specific process for acquiring data to find a measurable nexus between the avoided social / justice costs to taxpayers and engagement with the Arts in general and SAC specifically.

### **Donations of time and money**

The labour of volunteers is another civic contribution of SAC. As stated in the earlier section on Opportunity Costs, it is estimated that donors contributed over 55,000 voluntary hours to SAC in 2011-12. The replacement cost of this labour is determined by calculating what it would cost SAC enterprises to employ people to perform the equivalent work.

It is presumed that each volunteer necessarily brings skills commensurate with their professional experience; therefore, it is not simply a case of replacing them with industry minimum wage labour. The overhead costs of administration and capital must also apply to each Arts business, and the overhead costs of taxation (such as superannuation, workers' compensation and payroll tax) should be additionally allowed for.

Using median wage data and allowing an additional 20 per cent for superannuation, payroll and administration costs, it is found that the cost to the community of replacing SAC volunteers (at the industry preferred, if practically unrealistic, full-time equivalent rate) would be \$1.4 million.

Although much is made of the value of philanthropy in the sector, the contribution of grass-roots volunteers here is effectively worth over six times the value of cash donations. Taken together, donations of time and money to SAC enterprises in 2011-12 amounted to \$1.6 million. If government or other civic institutions did not meet this shortfall, the absence of donations of time and money would increase the cost of SAC goods and services by over 10 per cent.

Interestingly, the survey revealed that SAC enterprises estimated the replacement cost of volunteers to be significantly higher—at \$1.6 million. It is also notable that many did not appear to recognise the on-cost liability (that is priced here at 20 per cent) they might incur in this regard. It is therefore likely that this study is underestimating the total benefits of volunteering in the absence of more complete data. Nonetheless, SAC critically depends as much on the contribution of volunteers almost as much as it does on government funding. Sustaining and enlarging this base should be a continuing priority.

## **Brand**

Every time that Tasmania is associated with a SAC activity, event or individual, it 'brands' the State—all be it temporarily—in the public consciousness. For example, many outsiders would associate SAC alumnus Richard Flanagan with fine writing and the southern isle. Such links are known to influence related purchase behaviour (Balabanis & Diamantopoulos, 2011; Kang & Yang, 2010).

For the State, this means that people make tourism, export or even migration decisions that are founded on the strong and positive associations they have with Brand Tasmania. A survey conducted by Dobos (2011) for Tourism Tasmania, for example, found that Art and Island Culture was a key factor in motivating and attracting tourists. As a significant player in the State's cultural economy, it is reasonable to suggest that SAC has a prominent role to play in this associative dynamic.

Yet despite the importance of the Tasmanian—or, indeed, any region's—brand, it is exceedingly difficult to assign a dollar value to it; even if conducting a media advertising campaign on Tasmania's behalf does come at a fixed cost. Indeed, the willingness of Tourism Tasmania and like agencies to purchase media space to this end reveals that they perceive a return from this activity that is at least equal to the dollars spent.

In the survey of SAC business, respondents reported directing 45.6 per cent of their total marketing spend, or **\$0.5 million**, on activities targeting people outside Tasmania. This is a civic benefit that can be viewed as either a 'bonus' to the state, or a cost avoided (if an equivalent statewide marketing benefit is to be achieved).

Beyond this amount, any editorial or indirect mention of Tasmania in the media can be valued at its equivalent market or replacement cost, all of which goes toward building the brand. For example, a study into the value of the Tasmanian Government's sponsorship of the Hawthorn Football Club (HFC) found that the replacement cost of Tasmania branded media exposure driven by the sponsorship was \$3.4 million in 2008 (Repucom International, 2008).

Although SAC's contribution in this regard is not quantified in this report; it is no doubt significant, and future studies should consider this and related export inducements in their scope.

### Other civic benefits

Philosophers from Aristotle to Dworkin (2006) have argued that a robust democracy depends on the active participation of its citizens. The logic has been that for a government to be truly representative, as many constituents as possible must be connected and contributing to the social discourse. Putnam (2000) proposes that social capital is the mechanism that facilitates this, and research in this field strongly connects Arts participation with a willingness to vote and engage in formal political membership (ISSP, 2001).

At a more fundamental level, the Arts and its expressions are regularly used as a 'meeting point' in water-cooler discourse. The shared recognition of the characters and symbols in Art facilitates conversation and acts as a focal point for social debate, which in turn informs policy. The national appreciation of the political cartoons of SAC tenant Jon Kudelka is evidence of this. It is further acknowledged that the Arts acts as a gateway for those marginalised to either contribute toward a political cause, draw strength from, or generate ideas that bring about political change (Caruso, 2005).

This report has not attempted to locate and assign an economic value to these additional Arts / SAC benefits; no doubt many more could also be identified. This is commended as a direction for future research.

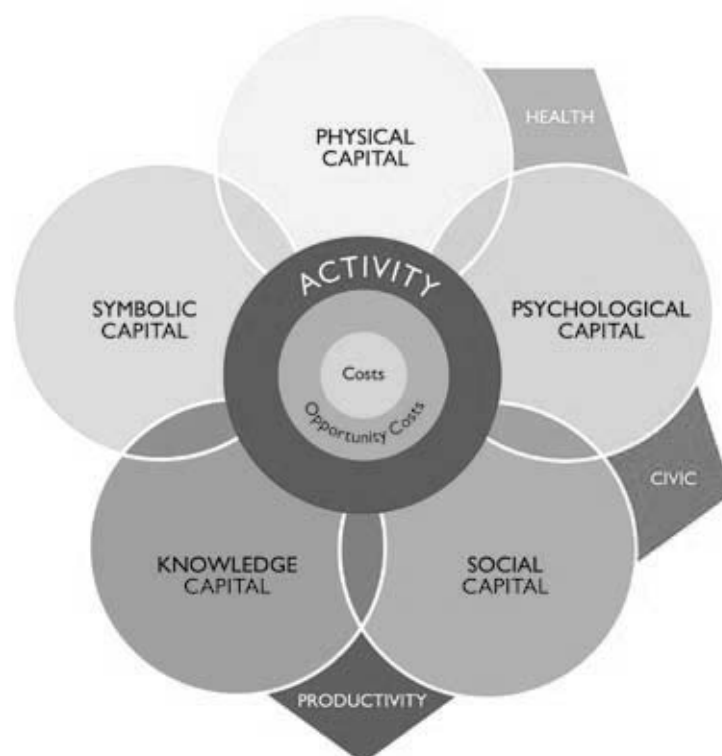
## Productivity benefits

A review of the productivity literature reveals that there are many different measures of productivity. The choice between the measures depends either on the purpose of the productivity measurement and/or the amount of data that is available (OECD, 2001). In this report, three distinct expressions of productivity enabled by the Arts, and SAC specifically are identified.

The first is a traditional measure of input productivity. This is the financial return that SAC and its dependent enterprises receive on their investments of capital, labour, energy, materials and services. It is estimated in the next section on Commercial Benefits that this was equal to \$3.3 million in 2011-12, or a return of **19.9 per cent** on the \$16.6 million invested. To avoid double counting in this section, however, this dollar amount is excluded from the gross reckoning.

Of more interest is a relatively under-explored and un-quantified benefit: the productivity benefits consumers of SAC products receive, enabling them to be more effective and efficient in their chosen employment. In this report, it is conservatively estimated that consumers enjoyed **\$7.5 million** in productivity benefits as a result of their engagement with and consumption of SAC products. Although accrued by individuals, this benefit was actually realised by their employers.

The productive value of Arts / SAC enabled innovation is also introduced, but not quantified.



## Consumer productivity

Productivity is often defined as a ratio of a volume measure of output to a volume measure of input. In other words, if a business purchases a quantity of paint, brushes and canvases for \$X amount of dollars to produce a work of art to sell for \$Y amount of dollars, then the difference (or relationship) between X and Y is productivity.

Yet one question overlooked by the productivity literature is, “How does act of engaging with an activity (for example, the Arts) change and/or enhance a consumer’s productivity?” In other words, if I make a SAC purchase to satisfy what are essentially my leisure (or well-being) needs; to what extent is that satisfaction measurable in my work performance? Does my employer receive a consequent productivity bonus?

Although impact studies in to the Arts occasionally call for future research into the impact that skills and technology may have on changing productivity within the creative industries sector (Reeves, 2002), theirs is essentially a call for inquiry into production productivity. The literature on workspace design indirectly considers this question; however, this study was unable to locate any research that disaggregates the effect of art within workspace design on productivity, let alone attempts to quantify it.

With no previous studies to assist in the development of a methodology to measure the productivity of consumers engaging with SAC, the method of this research involves identifying and applying a proxy.

The Tasmanian ArtSite Scheme was established in 1979 by the Tasmanian Government to improve the general public’s access to and understanding of contemporary art. Through the purchase of art works produced by Tasmanian resident artists, it is intended to “...visually enrich a wide range of public buildings, offices, open spaces and government departments in both rural and metropolitan areas across Tasmania” (Department of Economic Development Tourism and the Arts, 2012). The State Treasurer’s Instruction number 1222 stipulates that for all Tasmanian Government building and construction capital projects—including new buildings and refurbishment projects—with a value at or greater than \$100,000 (excluding GST), two per cent of the capital budget is to be used for the purchase and or commissioning of artworks, up to a ceiling of \$80,000 for each project (Department of Treasury and Finance, 2010).

Therefore within the geographic scope of this study, there is a government policy of thirty years’ standing strongly implying that workers are likely to benefit from the presence of (and presumed engagement with) art. The extent of the productivity benefit is quantified as two per cent of the value of the infrastructure; in other words, in as much as infrastructure and environment enables productivity, two per cent of it is attributable to art.

It should be noted that since the introduction of this scheme, other public art policies have been introduced throughout Australia; including South Australia's (Art for Public Places program 1984/6; operating since 2008 as Public Art and Design), Western Australia (Percent for Art Scheme, 1989), Queensland (Art Built-In, 1999-2007, Art+Place 2007-2010 & Art+Place Queensland Public Art Fund 2010-14), the ACT (Public Art Program, 1995 and Action Statement for Public Art, 2007), and the Northern Territory (2006) (ACT Government, 2007; Arts Queensland, 2006, 2009; Fazakerley, 2008; Government of South Australia Arts SA; Government of Western Australia Department of Culture and the Arts, 1989; Public Art Research, 2012).

Numerous 'per cent-for-art' schemes have also emerged and been ratified internationally; including in the United States of America, Canada, Ireland, the United Kingdom, Finland, the Netherlands, Belgium, Sweden, Norway, Denmark and Spain. Three of the most exemplary and long-standing schemes are administered by the Seattle Office of Arts and Cultural Affairs (Percent-for-Art ordinance 1973), the City of New York Department of Cultural Affairs (Percent-for-Art Program 1982) and the San Francisco Arts Commission (San Francisco Charter 1932) (City of Seattle, 1973; San Francisco Arts Commission Public Art, 1969; The City of New York, 1982).

In order to quantify the productivity benefits of SAC realised by employers, the Tasmanian Treasury's two per cent productivity multiplier is applied to the cost of wages and sum for all unique visitors of SAC. Since the productivity multiplier shows the increase in productivity total engagement with the Arts, and assuming that SAC accounts for a portion of this engagement, the portion of income that is attributed to a productivity increase is discounted. From the survey it was found that 20.5 per cent of respondents' arts spending was at the SAC; therefore, the conservative assumption is made that users receive this portion of their productivity benefit from SAC products, and apply it as a discount rate.

$$\text{Consumer Productivity} = \hat{w} \times m_p \times v \times r$$

$\hat{w}$  = cost of wages (annualised)

$m_p$  = productivity multiplier (2%)

$v$  = number of unique visitors

$r$  = discount rate (20.5%)

Thus the extent to which engagement with SAC improves the productivity of individuals (a benefit enjoyed by their employers) is estimated to be **\$7.5 million**.

There is much need for additional research in this regard. For example, the conservative assumption is made that consumers only receive an increase in productivity from SAC through making purchases; however, it is also likely that those who don't make purchases may also experience productivity benefits. It is also acknowledged that infrastructure is not the only enabler of workforce productivity, and that other factors are in play (including artistic consumption external to the organisation's design). Empirical research into the effects of art on productivity, rather than the adoption of the two per cent proxy (which varies from jurisdiction to jurisdiction), would therefore be well received.

## Innovation

There is a growing awareness in policy that the ability to innovate is a fundamental driver of economic progress, social welfare, and national competitive advantage (OECD, 2007); however, little is known about the specific contribution of the Arts to innovation. It is not the place of this report to remedy this, but several examples of community-significant innovation that have emerged from the Arts sector are advanced, and it is argued that this is the tip of a massively underappreciated iceberg.

ArtWave, an arts advocacy group based in Cincinnati (USA), notably links the Arts with innovation by observing:

*Many important inventions are based on innovations by artists—from micro-sutures adapted from the fine tools and threads used in lace-making, to microchips that are made using methods developed by etchers, silk-screeners and photo-lithographers. Even the encryption used in many of today's cell phones was invented by a composer and an actress, inspired by the structure of piano music (Fine Arts Fund, 2010).*

The academic journal of the International Society of the Arts, Sciences and Technology, Leonardo, also publishes in this regard. Occasional research, such as that done by Harris (1999), makes a further contribution; however, economic and even social impact reviews of the Arts and artistic activities almost invariably overlook this dynamic. Wider acknowledgement (and, indeed, social exploitation) of Arts as a hub of twenty-first century innovation is therefore long overdue.

The value of individuals who are more innovative as a result of their Arts / SAC engagement has already been estimated. This study has not, however, attempted to delineate and assign an economic value to the community-wide benefits of Arts / SAC innovation. This is recommended as a direction for future research.

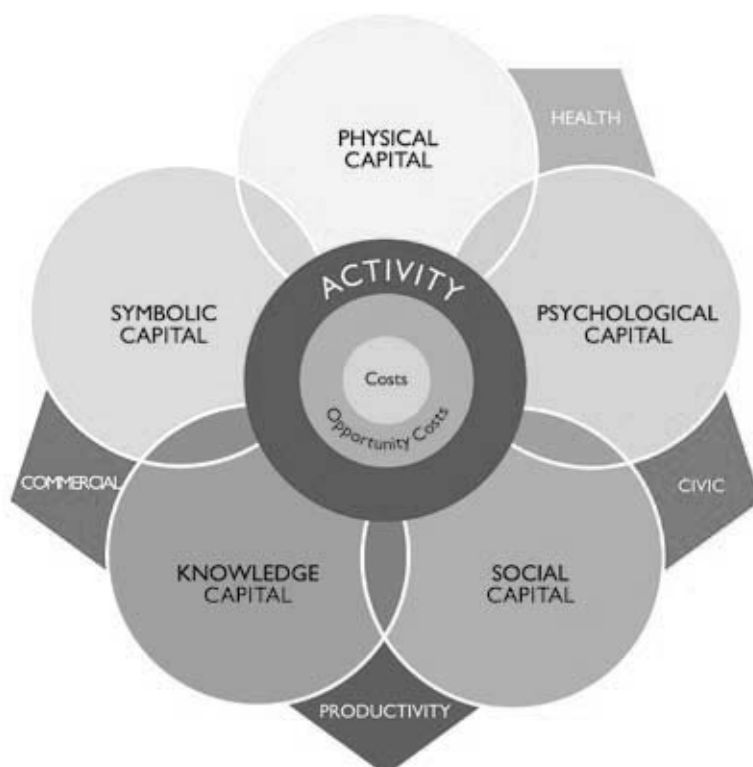
## Commercial benefits

Expenditure on SAC creates a change in final demand that has an economic impact on employment, output and gross state product. The economic impact includes the impact on intermediate goods and the compensation of employees. A full accounting of the current (direct) costs necessary to this has already been made, and the sum of economic inputs related to or motivated by SAC in Tasmania in 2011-12 was \$16.6 million.

Using the Tasmanian Regional Input-Output Matrix (RIOM) model, it is estimated that the impact of this expenditure was to increase output in the Tasmanian economy by \$25.2 million. The increase in wages, rents, profits and taxes associated with the increase in production is estimated to have increased Tasmania's gross state product by \$11.7 million (compared to an alternative case in which all the organisations within SAC ceased trading).

Within this, the expenditure associated with SAC is estimated to have generated in the order of 190 jobs, 101 of them full-time, representing \$6.0 million of wage income for Tasmanian households. Another significant impact is the producers' surplus. It is estimated that in 2011-12, SAC delivered \$3.3 million of additional value to all producers, with an additional \$2.4 million being returned to the government in taxes.

Therefore in 2011-12 the sum of commercial benefits enjoyed by the community through SAC was estimated to be **\$11.7 million**.





## Input/Output modelling

The value of expenditure associated with SAC can be understood in two contexts. Firstly, the amounts spent by individuals, businesses or government on SAC reveal a value that the community perceives in the activity. Secondly, expenditure on SAC creates a change in final demand that has an economic impact on employment, output and gross state product. The economic impact includes the impact on intermediate goods and the compensation of employees.

Analysis of the total impact, including indirect effects, is based on an understanding that industries, and individual companies within these industries, do not exist in a vacuum, but use each other's products to produce their own. Thus, an increase in demand for one industry's products leads to increases in the demand of other 'linked' industries. An Input/Output (I/O) representation of the economy is comprised of a set of industries which are linked by these I/O or intermediate relationships and by the final demand for each industry's output. The model used in this report is the Tasmanian-specific iteration of the Regional Input-Output Matrix (RIOM) model.

Broadly, I/O modelling examines how different industries interact to produce final demand. For example, a dairy farmer (as part of the Agriculture industry) may sell some of his or her milk to a cheese maker (part of the Food Product Manufacturing industry), who uses it as an ingredient in his or her cheese. This company in turn sells some of its output to a food wholesaler (part of the Wholesale Trade industry), who sells some of it to the Tricycle Cafe & Bar (SAC), who includes it in a meal for a hungry customer. The same 500 ml of milk has been sold several times, but only the last transaction represents final demand. Thus, the inputs required by one industry form part of the demand for the products of another.

There are two major types of I/O models: open and closed models. In open models, the labour and wages of employees and the gross operating surplus of companies are treated as primary inputs in the production of goods and services; if you want to produce more widgets, you must employ more widget makers. This type of model captures the direct and indirect effects of changes in demand in one industry on the other industries in the economy.

By contrast, RIOM is a closed model that includes the household sector as a separate industry. This enables the consideration of induced effects of changes in demand. Induced impacts reflect the changes in consumer spending resulting from changes in economic activity and therefore in employment. The household sector is considered as an 'industry' whose outputs are labour, and whose inputs consist of consumer spending; if you create more employment, you also create an increase in demand from the household sector for consumer goods like food, accommodation, entertainment and so on.

RIOM applies the Australian Bureau of Statistics Australian 2008-09 transaction tables (ABS, 2012b) in conjunction with Tasmanian demand and employment information to model the impact of changes in demand on the Tasmanian economy, estimating changes in Tasmanian output, employment and gross state product.

The Tasmanian transaction table used in the model identifies 57 industries across 17 industry sectors. For expenditure allocated to each industry sector, a unique multiplier impact is calculated estimating the impact on gross supply, output, gross state product (following the value-added method), employment, wages, imports and taxation. The Leontief multiplier is given here as:

$$(1-X-C)^{-1} \times SAC_E = \Delta O$$

$SAC_E$  = vector of SAC expenditure

$\Delta O$  = change in total output

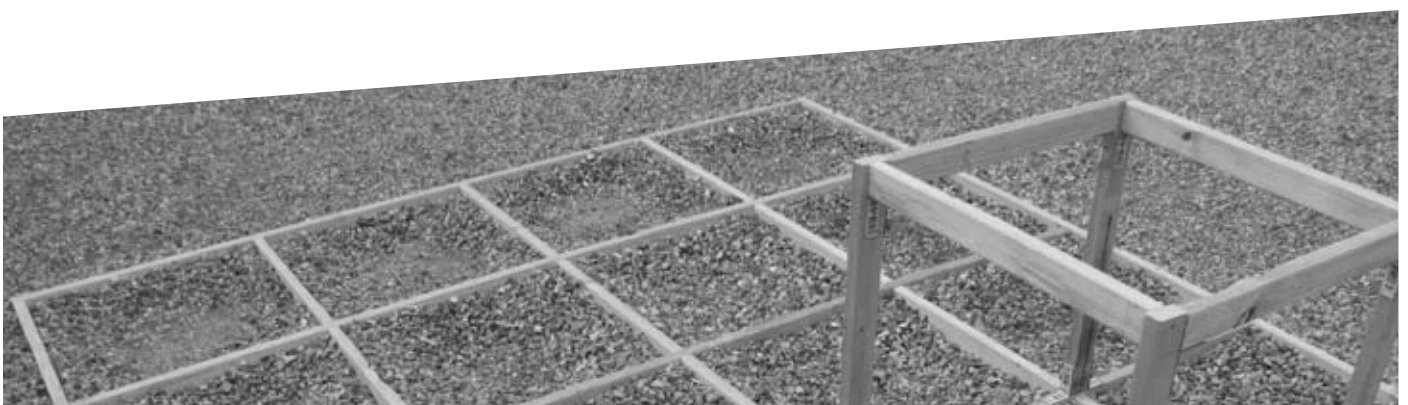
$X$  = transaction table of intermediate demand

$C$  = table of induced consumption demand

As previously noted, the organisations resident within SAC reported a combined turnover of \$16.6 million in 2011-12. This figure represents final demand in four main industry categories:

- Retail Trade,
- Accommodation and Food Services,
- Scientific, professional, technical and information services, and
- Arts and Recreation.

The expenditure on SAC has an economic impact that includes a combination of increased output by industries directly subject to increased SAC-related demand, increased output by suppliers to those industries and their suppliers, as well as increased output by all industries that have a role in supplying the demand of increased expenditure by households generated by increased wages.



Changes in employment and gross state product (GSP) are proportional to changes in output following the constant return to scale assumption inherent in I/O models. A number of the assumptions that underpin the analysis are disclosed here:

- The motivating expenditure for the analysis is the estimated expenditure in 2011-12. Unless explicitly stated and adjusted for, all data is sourced from that period.
- Financial multipliers are calculated using the Tasmanian Regional Input-Output Matrix (RIOM) model. This model is derived from the 2008-09 Australian Input-Output Table adjusted for Tasmanian demand and employment data. Financial multipliers are assumed to be consistent between 2011-12 and 2008-09.
- Employment impacts are estimated using RIOM, with expenditure adjusted for Hobart CPI movement between 2008-09 and 2011-12.
- SAC activities were fully-realised and on-going within Tasmania in 2011-12. Investment expenditure is limited to items included within federal and state grants, which are assumed to represent typical annual expenditure.
- Impacts are calculated based on direct, indirect (intermediate inputs) and household consumption effects. Increases in gross operating surplus or taxation revenue are not assumed to directly result in increased expenditure in the Tasmanian economy (the government sector is not closed).
- Where demand results in importation of goods or services from outside of Tasmania (interstate or overseas) no further impact is assumed on the Tasmanian economy. No impact of SAC demand emanating from the rest of Australia or internationally is assumed other than the tourism export effects noted in the text.

Table 1: The Economic Impact of SAC on Tasmania (\$m) (2011-2012)

Sector	Expenditure Relating to SAC SAC (A)	Tasmanian Production Impact (B)	GSP Impact (C)	Wages Impact (D)	Imports Impact (E)	Taxes Impact (F)
Retail Trade	\$3.79	\$8.66	\$4.47	\$2.31	\$1.74	\$0.92
Accommodation and food services	\$2.25	\$4.20	\$1.66	\$0.85	\$0.96	\$0.40
Scientific, professional, technical and information services	\$0.10	\$0.19	\$0.08	\$0.04	\$0.05	\$0.02
Arts and Recreation	\$10.47	\$12.20	\$5.49	\$2.77	\$4.84	\$1.07
<b>Total</b>	<b>\$16.61</b>	<b>\$25.24</b>	<b>\$11.70</b>	<b>\$5.98</b>	<b>\$7.59</b>	<b>\$2.41</b>

The estimated economic impact of direct SAC-related and SAC-motivated expenditure is shown in Table 2. The total expenditures used to motivate the analysis are shown in column A and sum to \$16.6 million.

In RIOM each type of expenditure is allocated to a specific industry sector for the determination of economic impact. It is estimated that the impact of this expenditure is to increase output in the Tasmanian economy by \$25.2 million (column B). This includes the production of intermediate goods as well as imports of \$7.6 million, much of which is likely to come from other states in Australia.

The expenditure associated with SAC is estimated to generate in the order of 190 jobs, both full-time and part-time (see below). Thus the increase in wages, rents, profits and taxes associated with the increase in production is estimated to increase Tasmania's gross state product by \$11.7 million (compared to an alternative case in which all the organisations within SAC ceased trading).

## Benefits to households

The expenditure associated with SAC is estimated to generate in the order of 190 jobs, 101 of which are full-time. This is a benefit of **\$6.0 million** (Column D) directly returned to households, with an equivalent welfare cost avoided by government.

It is noted that this is on top of the 55,068 hours, or 30 full-time equivalent positions donated through volunteering. The real wage effect of replacing these voluntary hours is considered earlier in this report (see *Civic Benefits—Donations of Time and Money*).

## Benefits to government

It is observed in Table 2 that the estimate of taxes generated by SAC-related or motivated expenditure is **\$2.4 million**.

Interestingly SAC enterprises received government grants of \$3.1 million in the same period. It can therefore be seen that in order to accrue all the benefits quantified in this report, the net cash outflow across all tiers of government is only \$660,000.

Note that the taxation receipts may not be directly proportional to the relevant investment of each tier of government.

## Benefits to businesses

Tasmanian firms also enjoy a net commercial benefit that is attributable to SAC. Known as the producers' surplus, this is an economic measure of the difference between the amount that a producer of a good receives and the minimum amount that he or she would be willing to accept for the good. The difference, or surplus amount, is the benefit that the producer receives for selling the good in the market. An alternative, if theoretically imperfect, description of this is net profit.

In equilibrium, this surplus represents the fair return to providers of capital which will be just sufficient to cover the cost of investment and the opportunity cost of the use of land or buildings for other purposes. It should be noted, though, that this is fundamentally a short-run concept in competitive markets. In the long-run, economic profits (profits in excess of the cost of capital) would generate new entrants that reduce profitability to normal.

The GSP impact is the gross output less the cost of inputs; this may also be referred to as the Gross Value Added (GVA) to Tasmania. This is reported in Table 2 at Column C to be \$11.7 million. If this is discounted by the cost of labour, or wages (Table 2, Column D—\$5.7 million), we are left with a theoretical surplus to firms of \$5.5 million. As mentioned in the previous discussion of impacts on government, \$2.4 million of this is returned in the form of taxes, with the balance of **\$3.3 million** retained by businesses as profit.

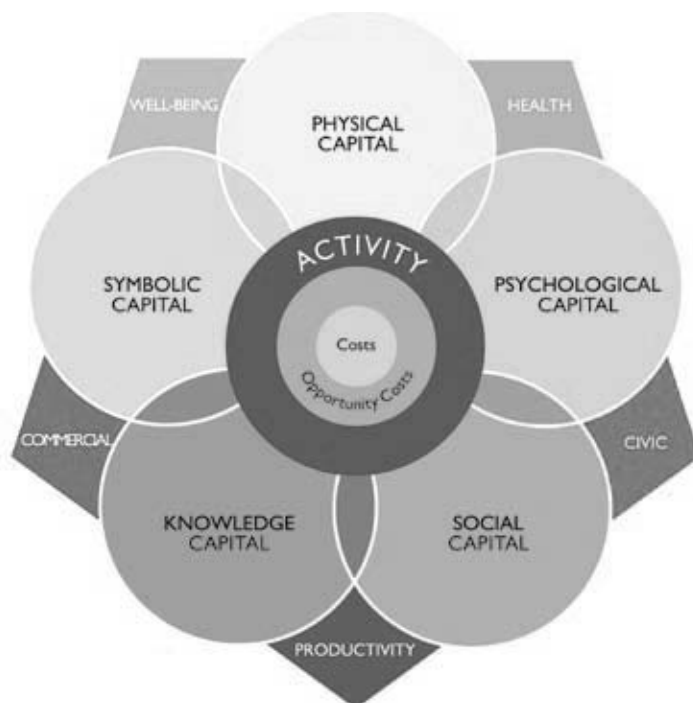
## Well-being benefits

To this point, this study has described and, where possible, quantified SAC outputs that change the value of an individual's health and productivity, as well our civic systems and the broader economy. In this section it is asked, how much is the intrinsic satisfaction or pleasure that the community derives from SAC?

When consumers engage with SAC through the purchase of a good or service they are assumed to derive some benefit from the decision. A rational economic framework imposes the assumption that decision-makers are acting to maximise utility in some fashion and do not intentionally make decisions that reduce this. Therefore, for each act of participation or consumption, there is assumed to be a gross benefit (or gross consumer surplus) attached to that action or consumption.

At the very least, the gross benefit is equal to their expenditure on the items concerned. The revealed preference framework can therefore be applied to identify the minimum benefits associated with SAC expenditure; in this case, the \$13.3 million identified as household expenditure in the section on Direct Costs. Yet how much would consumers be willing to pay above and beyond this amount for the full set of benefits that might accrue to them from their SAC purchases? And what of non-consumers? Do they identify a level of satisfaction with SAC, even though they may not be making purchases there?

Determining the well-being benefits associated with Arts engagement involves contingently valuing the sum of use and non-use values the community attach to the activity. In this section it is found that Greater Hobart residents recognise a well-being surplus of **\$27.7 million** that is attributable directly to SAC.

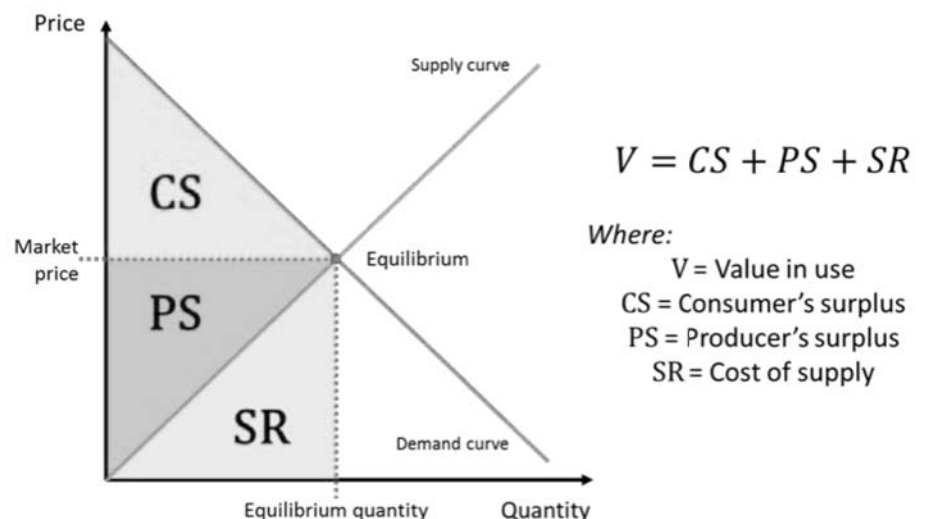


## Use value

It is argued that the places where transactions occur (markets) are a social good because the exchange will only occur when both buyer and seller perceive value in their end of the deal. For the vendor, this means making a profit that exceeds their costs of production. This profit is also known as the producers' surplus, and its value is estimated in the Commercial Benefits section of this report. For the purchaser, though, value means achieving a 'bargain', in that they would have been willing to pay more than they actually did for the article to satisfy their need. The welfare of both parties is thus improved, and goods and services that do not meet this twin threshold are naturally selected out of the market.

Thus the net consumer surplus is the net benefit or additional utility an individual receives in excess of the cost associated with an activity or act of consumption. In many cases consumer surplus is an important benefit in calculating the net costs or benefits of an activity, for it allows us to arrive at a use value of a product or service. The **use value** (or value-in-use) is what a person would be willing to pay for their purchase / consumption of a good or service, and includes the ultimate satisfaction (or utility) they derive from it. As such, it is the sum of the purchase (or market) price and consumer surplus.

Figure 2: Use Value



It is known from the survey of SAC businesses<sup>5</sup> that the market price for SAC goods and services consumed in 2011-2012 was \$13.3 million. Figure 2 shows that market price is the sum of the producer's surplus and the cost of supply.

This market price is subsidised, however, by government subsidies and opportunities foregone of \$3.2 million, and private donations of cash and time of \$1.0 million. This has the effect—depending on your perspective—of either enlarging the producers' surplus or reducing the cost of supply. The shadow price of \$17.5 million therefore reveals the true extent of consumers' and society's preference for SAC (McKean, 1968).

Yet when SAC consumers were asked how much they would be willing to pay (WTP) above and beyond that amount to preserve the benefits they might receive, 916 people stated that they would donate an average of \$79.02 per head.<sup>6</sup> For these respondents, the total amount spent on SAC was \$329,151 (of \$13.3 million). Using the extrapolating factor of 40.48, it is estimated the consumer surplus of SAC consumption to be \$2.9 million. This is 22.0 per cent more than what they actually pay via the shadow price (\$359 per head).

The gross value-in-use, being the sum of (shadow) market price and consumer surplus, is therefore **\$20.4 million**.

### Non-use value

Beyond this, *non-users* may also perceive a benefit to SAC even if they do not directly engage with it.<sup>7</sup> In the survey of the general community, 473 statements of preference were captured from people who did not spend any money at SAC in 2011-12. To better understand their attachment to the Arts generally, this study was able to categorise them as those who spent money on the Arts in the same period—just not at SAC (n=246)—and those who reported not spending money on the Arts at all in 2011-12 (n=227).

Interestingly, consumers of the Arts were, on average, willing to pay \$44.55 to preserve the benefits of SAC, even when they had not made a recent SAC purchase.

Using the extrapolating factor cited above, and assuming that the average spend reported is representative, it can also be inferred from 916 visitors that there were a total of 33,818 unique, purchasing visitors to SAC in 2011-12. In the absence of reliable data, it is conservatively assumed that 75 per cent of the unique, purchasing visitors to SAC came from the Greater Hobart region, the survey catchment. From this it can be inferred that there were a total of 25,363 unique, purchasing visitors from the Greater Hobart region to SAC.

In the survey, the proportion of Arts consumers within the total number of non-SAC users was 48 per cent. The population of Greater Hobart at the time was 211,656 (ABS, 2011). If we discount this by 25,363 (the number of unique, purchasing visitors from the Greater Hobart region to SAC in 2011-12), then the proportionate population

<sup>6</sup> Appendix 3: Community Survey

<sup>7</sup> For a discussion of the theoretical rationale for this, see *Methodology* - Non-use values.

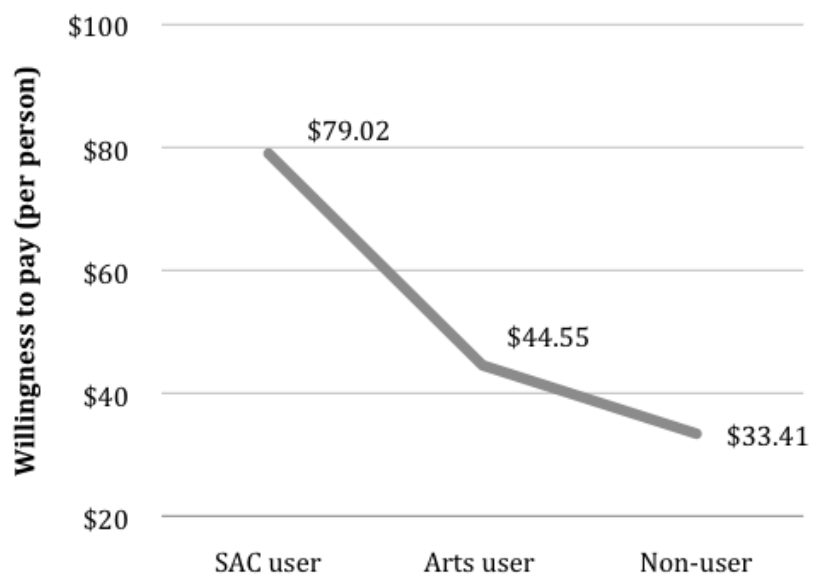


of those who spent money on the Arts but not on SAC would be 89,421. At an average WTP of \$44.55 per person, this gives an untapped WTP of **\$4.0 million**.

Even more remarkably, non-users of the Arts entirely expressed an average WTP of \$33.41 to preserve the suite of community benefits enabled by SAC. Continuing the method described above, this gives their gross WTP of

The chi square test of association between self-reported income and WTP is also significant ( $p < 0.05$ ), suggesting that responses are rationally bound to people's capacity to pay.

Figure 3: Individual Willingness to Pay for SAC



### So what?

The particular benefits that individuals and the community receive from the Arts are not unique. Viewed in isolation, they may not even be that efficient. For example, people can improve their health by doing more sit-ups; artists can find alternative (often better paying) employment; and, as 'luxury', relatively inelastic commodities, it would be fairly easy to justify increasing the tax revenue gained from artistic output. Perhaps then non-users are valuing the Arts' ability to originally combine and distribute these contributions to welfare.

To illustrate this, a statistically significant relationship was found to exist between the amount someone spends at SAC and their WTP ( $r=0.236$ ;  $p < 0.05$ ); however, the same could not be said of the relationship between Arts expenditure and WTP. In other words, the more an individual spends on SAC, the more willing they are to pay to preserve

its benefits; whereas, the amount a non-SAC, Arts consumer invests is irrelevant to their SAC WTP. Their WTP could therefore be seen to be as much an expression of satisfaction with the Arts in general as it is a specific appreciation of SAC.

Yet the phenomenon of protest bids aside, well controlled WTP studies suggest that the easier it is to replace a benefit, the less people are willing to pay to preserve it. In this case there are a number of competing artistic outlets in the Greater Hobart region—many with a much higher profile. Although a comparative WTP study with these venues has not been performed here, the fact that the community of non-users—especially non-Arts users—are theoretically willing to defend SAC to the extent described is an original and significant finding.

Another conservative assumption made here is that non-users outside the Greater Hobart region would not be willing to pay for SAC. In reality, though, there is likely to be a diminishing WTP predicated on a combination of geographic proximity and attachment to the Arts; in other words, a sum less than the figures described but nonetheless greater than zero. The survey method was not sensitive to this, and it is recommended as a direction for future research.



## 7. The Value of the Salamanca Arts Centre

The value of SAC to the community is the sum of its benefits. This study conservatively estimates these to be worth **\$52.5 million** in 2011-12. This figure is significantly greater than previous estimates based on price or economic impact; yet is likely to be an underestimate given the limitations of the available data and forensic techniques.

Table 2: The Value of SAC (2011-12)

<b>Inputs</b>			
Direct costs			
Consumers	\$	13,323,786	
Donors	\$	223,185	
Government	\$	3,066,525	\$ 6,613,496
Opportunity costs			
Volunteers	\$	75,481	
Capital	\$	63,920	
Taxes	\$	<u>59,924</u>	\$ <u>899,325</u> \$ <b><u>17,512,821</u></b>
<b>Value</b>			
Health	\$	3,209,797	\$ 3,209,797
Civic			
Health	\$	81,890	
Programs	\$	227,751	
Volunteers	\$	1,595,190	
Brand	\$	542,042	\$ 2,446,873
Productivity			
Consumers	\$	<u>7,483,191</u>	\$ 7,483,191
Commercial			
Households	\$	5,979,307	
Business	\$	3,310,038	
Government	\$	<u>2,406,222</u>	\$ <u>11,695,567</u>
Well-being			
Revealed preference	\$	17,512,821	
Consumers' surplus	\$	2,929,888	
Arts non-users	\$	3,983,706	
General non-users	\$	<u>3,236,494</u>	\$ <u>27,662,909</u> \$ <b><u>52,498,338</u></b>

On its own, \$52.5 million is a fairly meaningless sum. The power of numbers lies in their ability to provide a standardised basis for comparison, and—short of performing the same exercise for every other human activity—a top-line valuation of every human endeavour is impractical, if not impossible.

For that reason this study contrasts the net value of SAC with the cost of inputs. It can be seen in this instance that for every dollar invested by the community, **three dollars** are returned. The return on public investments of both money and opportunity is **17:1**.

## Clustering benefit

The United Nations Creative Economy Report (2008) highlights the tendency of firms producing cultural products, such as music, film, visual arts, fashion and design, to cluster together. This enables the economic, social and cultural interactions to develop amongst the firms in the cluster, which become essential to their survival and growth. SAC is an example of Arts and related industry firms clustering together in a single retail footprint.

Clustering, or *agglomeration* as it is called in spatial economics, describes the benefits that flow to firms from locating in areas which have a higher density of economic activity. Locating in an area of dense economic activity allows firms to achieve *economies of scale*, such as a large customer base. Within that large customer base, the opportunities for *economies of scope*, such as diverse product offerings, are also presented (COAG Reform Council, 2012; Duranton, 2011).

These benefits extend to effects on labour and training, input sharing, innovation, and knowledge and technological spill-overs. For example, it has been shown that a high concentrations of artists and/or high-skilled workers may produce agglomeration effects when businesses (especially those in the fast-growing 'creative industries'(Walesh & Henton, 2001) are drawn to an area because of the availability of creative talent and/or high-skilled workers, and vice versa (Guetzkow, 2002). Greater concentrations of artists and arts-related organisations has been further demonstrated to lead to higher degrees of arts participation among residents, directly and as audience members (Stern & Seifert, 2000).

Theories of agglomeration have almost always been grounded in the concept that increasing the absolute scale of an industrial activity invariably brings benefits. For example, having more workers to choose from means workers are employed in jobs better suited to their skills (Helsley & Strange, 1990). It has long been understood that related firms choosing to stay in a common location for a long period of time benefit in terms of reduced training requirements, and the informal transfer of know-how between skilled workers and from skilled workers to their children and others in these locations (Marshall, 1920).

Glaeser and Resseger (2010) also note that there is a strong correlation between per-worker productivity and metropolitan area population in cities with high skill levels; the authors determine that area population (urbanisation or clustering) can explain as much as 45 per cent of the variation in per-worker productivity.

Diversity of industries also enables the cross-fertilisation of technologies and leads to the birth of new industries and growth and innovation in existing ones (Chinitz, 1961). Porter (1998) argues from case evidence that competition encourages innovation by forcing firms to innovate or fail. Competitive pressures are therefore seen to improve productivity. In addition to this, having an open and flexible industry culture that allows for entrepreneurialism is advanced as a main performance driver (Rosenthal & Strange, 2003; Saxenian, 1996).

Yet despite this theoretical appreciation, there is a noticeable gap in the literature in quantifying the benefits of clustering, or the direct effect of clustering on profits, especially in the Arts. E. Kelly and O'Hagan (2006) did find that by artists clustering together, there are significant advantages, such as subsidiary trades, synergies and spill-overs; however, their research is typical in stopping short of assigning an indicative value to these benefits.

The quantification of productivity effects in the broader agglomeration literature is extremely varied. On the one hand, Shefer (2006) concluded that doubling city size would increase firm productivity by 14 to 27 per cent; while Sveikauskas (1975) found that there would be an increase of only six to seven per cent. Nakamura (1985) argued that doubling the scale of an industry leads to a 4.5 per cent increase in productivity, while doubling the size of a city leads to a 3.4 per cent increase. Graham (2006), on the other hand, found a productivity elasticity of 12.5 per cent for the whole economy, including 20 per cent for services industries (like the Arts). Doubling employment density has also been found to increase productivity by approximately 5 per cent (World Bank, 2008).

If these productivity benefits are true of industries in general, it is argued here that the results are *prima facie* transferable to specific industries and enterprises, such as the Arts and SAC. For example, the capability benefits of knowledge sharing and the capacity benefits of resource sharing (including the scale-enabled potential for cost reductions) are all intended to be realised by the SAC cluster. The corresponding market intensity also facilitates trading between SAC subsidiaries and creates brand synergy, while fostering the competitive tension necessary to drive innovation. Even the physical location of SAC and its proximity to so many other related drivers of pedestrian traffic is unlikely to be within the capacity of each SAC enterprise were it to trade in isolation.

The studies cited also show the productivity benefits as discrete increments; however, the benefits of scope and scale should reasonably be aggregated to arrive at a ‘master’ impact. The wide range of results described (45 per cent to one per cent) nevertheless presents a challenge to the task of aggregating estimates and applying them to the Arts and SAC; therefore, this study conservatively suggests that the total benefit that SAC enterprises receive as a result of clustering is 10 per cent of their total revenue (including their capability to source donations and government funds).

To validate this, data was gathered on the self-reported effect of coming to the SAC on the total turnover of individual SAC businesses<sup>8</sup>. Of the commercial firms who had established before SAC and had data available, it was found that commercial profit was, on average, 42 per cent greater at SAC than it was previously. However, these findings cannot be considered reliable, as the sample was small and estimates provided were anecdotal at best.

For various reasons only 25 per cent of participants were able to provide an indication if profit was more or less; indeed, many SAC organisations are cooperatives, so any sales profits are distributed directly to the artists rather than recorded as organisational profits. Of all businesses that responded to this enquiry, all but one reported their commercial profit as being lower prior to partnering with SAC, but less than half of these were able to advance a specific figure. Therefore the specific benefits of clustering at SAC cannot be conclusively determined.

Nonetheless, the data obtained from the survey of producers is still theoretically supportive of the clustering literature in terms of increasing local returns (Duranton, 2011). Since the average commercial profit before partnering with SAC was found to be lower overall, firms must see a productivity benefit by clustering at SAC. As preliminary support for the benefits of clustering in the Arts, this highlights an interesting and relevant direction for future research.

As the benefits of clustering include an increase in benefits to all of the community, the gains of clustering are estimated here by applying the benefit multiplier to the gross benefit calculated:

$$\text{Clustering Benefit} = \pi \times m_c$$

$\pi$  = total benefits (\$52.5 million)

$m_c$  = clustering multiplier (10 per cent)

Therefore the total benefit that community receives from the clustering of SAC enterprises is estimated to be **\$5.3 million**. It should be noted that these benefits are not distinct from the benefits already identified, as they are effectively embedded in each reported layer. It is nonetheless useful to show them alongside the total benefits, especially as a benchmark for evaluating the effectiveness of the SAC parent organisation (see below).

### **SAC productivity**

Highlighted in the Introduction to this report, SAC's mission is to develop and promote the Arts in Tasmania through leadership, inspiration, creativity and excellence in arts development, programs and facilities (Salamanca Arts Centre, 2012). To achieve this end, there is a parent SAC organisation that is managed by a Board of nine elected, appointed, and co-opted Board Directors. Supporting the Board is a team of four full-time and up to 40 part-time and occasional staff, as well as numerous volunteers.

Although the SAC parent organisation generates its own minor stream of direct revenue, it is not intended to be a profit centre in its own right. Even though it is financed by the rent received from the SAC enterprise cluster and some minor government funding<sup>9</sup>, given the levels of government investment in the Centre and its enterprises, the question can be legitimately asked whether or not the Board itself is efficient.

Justifying the parent organisation of SAC as a public good depends on whether the costs of supply are less than the benefits returned; yet, it is not appropriate for the parent to claim the profits of the tenants as their own. The cost of administering SAC, however, can be compared directly to the productivity it enables.

In 2011-12, the operating costs incurred by the SAC parent organisation were equal to \$1,270,252. Against an income of \$1,255,982, this realised a commercially unsustainable financial loss of \$14,270 (-1.1 per cent). Despite this, when the clustering benefit of \$5.3 million is considered alongside income, a yield of \$5.12 on every dollar invested can be observed.

This is a positive return and (objectively, if by no other means) justifies the SAC parent. This finding might also be taken as support for the assumption made in the section on Capital that in carefully selecting the 'right' strategic mix of enterprises, the Board is positively shaping the states of capital that are influenced by the activities of the Centre.

<sup>9</sup> The economic impact of these activities has been calculated elsewhere in this report.

## Politicians are smarter than you think!

It is noted in Table 2: *The Value of SAC (2011-12)* that all levels of government contributed \$3.0 million directly and surrendered opportunities to the value of \$0.1 million to support SAC. It can also be seen that non-consumers of the Arts valued their SAC WTP within 5.5 percent of that total, at approximately \$3.2 million.

This congruence between public investment and public satisfaction suggests that the community is recognising non-transactional benefits equivalent to what politicians have agreed they are willing to fund. In other words, in this instance the politicians appear to have got it right!

Linking WTP to the actual investment of public money is therefore proposed as an innovative method for calculating the merit of public / private partnerships. This is not to suggest, however, that the scenario describes an optimal (or Pareto efficient) level of contribution. In fact, if government largesse is returning 67:1, then an increase in public funding should realise an exponential return on that investment, suggesting that the full welfare potential of SAC is yet to be realised.

This is commended as a direction for future research.

### **A cautionary note**

Expressions of willingness to pay essentially measure satisfaction, and should not be confused with a desire on the part of consumers to pay more. In terms of value, increasing prices would result in a zero sum for current SAC users, as the consumers' surplus would be converted into producers' surplus for no net gain.

It is also known that for regular consumers of the Arts, prices are relatively inelastic; however, non-consumers are highly price sensitive. Therefore, non-users would be alienated by price rises that were not linked to new value, and this would reflect in their adjusted WTP. As the greatest community benefit can be realised by converting non-consumers of the Arts (WTP=\$33.41) into SAC consumers (WTP=\$79.02), deliberating exploiting the presently high levels of the community's WTP—by either increasing prices or withdrawing subsidies—is likely to be counter-productive.



## 8. Conclusion

The findings of this study speak for themselves. If you could guarantee a minimum annual return of 300 per cent on every dollar commercially invested, then there would be a run on the banks tomorrow. Yet although this result may be cause for celebration amongst advocates for the Arts, this study argues that the full potential of SAC (at least) is yet to be realised.

Supporters of the Arts have struggled to develop a national conversation that makes the case for robust, on-going public support of the Arts.

While arts enthusiasts feel deeply about the importance of the Arts and can speak quite eloquently about a number of aspects such as the universality or the transcendent nature of the Arts, many have been frustrated by an inability to spark a positive, national, constructive public conversation on the topic...

Instead, public spending on the Arts is too often criticised as an example of “wasteful” government spending or “misguided” government intrusion into an area where it doesn’t belong.

In order to create a more constructive public dialog, it is necessary to explore the dynamics in the current public conversation—in the media, for instance—as well as in the thinking of the majority of people who do not focus on the Arts in their daily lives (Fine Arts Fund, 2010).

That said, it is beyond the brief of this project to make recommendations as to how government investment in SAC can be made more efficient. That would require the application of the model to specific programs and policy contingencies. The results reported nevertheless reveal a number of outcomes that should be of particular interest to the community.

This analysis has shown that because the external benefits of SAC exceed the social costs, the outcome is in fact efficient. Furthermore, the yield on government investment is huge at 67 to one; public acceptance of that investment appears to be well matched to the actual amount; and, the clustering SAC enterprises in the manner described is reaping a significant bonus for stakeholders and society as a whole.

Ultimately, this study concludes that those who invest their time and money in SAC are supporting the common good. Hopefully this report can educate readers to the economically real and significant value of SAC. All too often, advocates of the Arts are accused of being evangelists, appealing to the intuition of their audience in the absence

of economic reason. Yet even if some of the findings herein are to be contested, it is argued that this report is a major step towards filling a gap in the debate for (or against) the Arts generally.

Although there are a number of limitations to the findings that would benefit from future research, the opportunity now exists for decision makers in both industry and government to leverage this framework for continual improvement in the marketing and delivery of their services.

## 9. Opportunities for Future Research

This study has identified a number of gaps in our understanding of the empirical impacts of the Arts in both SAC and the world at large. Future research is therefore encouraged in the following areas:

- The review of the literature on Arts Capital merely scratches the surface. Extensions of this research should be less concerned with isolating Arts Capital; emphasising instead its connection to the macro-environment.
- This study does not quantify the economic benefits of passive Arts consumption (that is, non-transactional engagement). Although for SAC these benefits may be internalised to some extent in the WTP of non-users, it remains an under-explored frontier in the literature.
- The role of volunteers in supporting the Arts sector is potentially underappreciated. Linking the actual working wage that volunteers are earning in their paid employment to the opportunity cost of their time, as well as measuring their real replacement cost, will improve our understanding of their worth.
- While the relationship between the Arts and physical health is well documented, the empirical connection between these constructs needs definition. The “one-quarter of one-percent” method is a conservatively applied proxy that would benefit from specific validation.
- Similarly, the estimate of the benefits that flow to the health system was a considerable underestimate as it did not include the opportunity costs of private carers, government savings in welfare payments, or taxation revenue potentially gained through the realisation of these opportunity costs.
- The replacement cost of dedicated Arts programs is also an insufficient proxy for the value they deliver. Finding a measurable nexus between the avoided social / justice costs to taxpayers and engagement with the Arts is commended as a direction for future research.
- The relationship between regional brand and the Arts can be quantified by the valuing the editorial and online inches dedicated to relevant Arts events. Future studies should consider this and related export inducements in their scope.

- The relative benefits that the Arts deliver to community dialogue and civil engagement are real, if problematic to measure. This should not deter future efforts in this regard.
- Empirical research into the impact of the Arts on the productivity of consumers, rather than the adoption of the two per cent proxy (which varies from jurisdiction to jurisdiction), would also be well received.
- Although the value of individuals who are more innovative as a result of their Arts / SAC engagement is estimated, this study has not attempted to delineate and assign an economic value to the community benefits of Arts innovation. This is also recommended as a direction for future research.
- The input / output model used in this study made significant State-wide generalisations, particularly about imports, that may or may not have accurately reflected the actual flow of transactions in the SAC micro-economy. Although collation and integration of the level of detail required to customise the model was beyond the means of this study, larger applications of the I/O method should consider this.
- Another conservative assumption made in this study is that non-users outside the Greater Hobart region would not be willing to pay for SAC. In reality, though, there is likely to be a diminishing WTP predicated on a combination of geographic proximity and attachment to the Arts; in other words, a sum less than the figures described but nonetheless greater than zero. The survey method was not sensitive to this, and future studies should consider capturing this value.
- Since the average commercial profit of firms was reported to be higher post-association, firms clearly see a productivity benefit in clustering at SAC. As preliminary experimental support for the benefits of clustering in the Arts, this highlights an interesting and relevant direction for future research.
- Linking WTP to the investment of government dollars in projects of all varieties is proposed as an innovative method for calculating the merit of public / private partnerships.

As the first known valuation of an artistic ecosystem within a defined region, this study is as much exploratory study as it is conclusive. Future applications of the evolving model and method may include using it to review and assess grant proposals, assessing the performance of projects and programs, benchmarking progress over time, and using the findings as a basis for intra- and inter-industry comparison.

A final lesson learned was that one reason why valuing the Arts is so difficult is because artists are often unwilling or even unable to provide reliable primary data about their businesses. This has made it difficult and time-consuming to obtain accurate and complete information from relevant stakeholders. For that (and all the other reasons mentioned), quantified research into the benefits of the Arts should continue to be encouraged and routinely communicated to the community.



# Appendices

## Appendix 1: SAC Organisations, Programs, Venues and Events

### Tenants

#### **Artists in studio**

Adrian Barber  
Catherine Woo  
Emily Snadden  
Katherine Cooper  
Michaye Boulter  
Regina Guner  
Tanja von Behrens

Alex Fried  
Cristina Palacios  
Jacqui Renton  
Leonie Struthers  
Rebecca Roth  
Revolve Arts

### Arts organisations

Australian Script Centre  
Festival of Voices  
Solid Orange Media  
Tasmanian Theatre Company  
Terrapin Puppet Theatre  
WheelWeb

Australian Wooden Boat Festival  
Roar Film  
Tasmanian Regional Arts  
Tasmanian Writers' Centre  
Wide Angle Tasmania

### Arts retail

Acacia Grove Tasmania & Onewall  
The Art of Silver Cooperative  
A Common Ground  
The Faerie Shop  
Gallery 77  
and Metal Collective  
Inka Gallery  
Nolan Art Gallery & School  
Phone Box Gallery (Kudelka)  
Rebecca Roth Gallery  
The Spindle Tree

Artefacts  
Aspect Design  
Déjà vu Books  
Gallery Salamanca  
Hammer & Hand Jewellery  
Handmark Gallery  
The Maker  
Off Centre  
Quoll Artists Gallery  
[spacebar gallery]  
Tasmanian Woollen Co.

### Eat and drink

A Common Ground  
Tricycle Café & Bar

Mezethes Greek Taverna

## Venues

Peacock Theatre

Kelly's Garden

Sidespace Gallery

Lightbox

The Courtyard

SAC Tasmanian Community Fund Kitchen

The Artist's Cottage

Art Form Development

Kelly's Garden Curated Projects

Mobile States

SPACE

The Founders Room

Long Gallery

Top Gallery

Studio Gallery

The Backyard

The Meeting Room

Programs and events

HyPE (Hybrid Performance Program)

Kultour

Rektango

SPACE Dance



## Appendix 2: Business Survey

The following survey was delivered face-to-face to all SAC tenants in August, 2012. In many instances, the survey was completed over a number of visits to allow organisations time to collect relevant data. The impacts of causal hirers and two non-respondents were captured in the responses of the parent (governing) body.

At the request of the SAC parent, a number of questions not specifically relevant to this study were asked. In the interests of completeness, the entire survey instrument is disclosed here; however, it should be noted that not all data gathered is reported.

*The University of Tasmania is conducting a cost-benefit analysis of the Salamanca Arts Centre (SAC) in order to evaluate the substantial impact SAC has on the community. This analysis will incorporate economic, social and cultural impacts. In order to evaluate SAC we require valuable primary source data from businesses, artists, and related organisations. All information given will remain confidential and candidates are not obliged to answer any survey questions.*

### **Resident Information**

1. Business/organization name and space number:

2. Indicate resident type:

- Artist in Studio
- Arts Organisation
- Arts Retail
- Food & Drink

### **Background**

3. What year did you establish your business here?

4. Can you estimate how many unique visitors you had in 2011? How many in total?

### **Presentations – Performance**

5. Did you/your Business/Arts organization present any performance works in 2011?

Y  N

6. If you answered YES,  
What type of performance did you present?
7. How many performances did you present?
8. Overall, how many people attended performances presented by you in 2011?
9. How many of these performances occurred within a SAC venue?
10. If you presented a performance in a venue outside of the SAC, what are the names and locations of the venues? (eg Theatre Royal, schools)
11. How many of these performances toured, and what venues (name and location) did they tour to?

### **Presentations – Exhibitions**

12. Did you/your Business/ Arts organization present any exhibitions in 2011?  
For Artists in Studios: Was your work presented in any exhibitions in 2011?

Y  N

13. **If you answered YES,**  
What type of exhibition did you present/participate in?
- Solo Exhibition
  - Curated Group Exhibition
  - Members Exhibition
  - Competition or Prize
  - Other (please specify)

14. How many exhibitions did you present/participate in?



15. Overall, how many people attended exhibitions presented by you/ you participated in during 2011?

16. How many of these exhibitions occurred within a SAC venue?

17. How many of these exhibitions toured, and what venues (name and location) did they tour to?

### **Representation**

18. How many artists were represented by you/your business/Arts Organisations in 2011?

19. How many of the artists represented by you/your business/Arts Organisation in 2011 were EMERGING ARTISTS?

### **Financials**

20. What was your rent in 2011?

21. What was your total cost of labour in 2011?

22. How many full time, part time & casual employees did you have working in 2011?

23. How many trainees or apprentices did you have working for you in 2011?

24. How many hours did volunteers contribute to your business in 2011?
  
25. What hourly rate would you have to pay your volunteers if they were casual employees?
  
26. How much do you spend in total on marketing?
  
27. How much of this marketing spend was directed outside Tasmania?
  
28. How much of this marketing spend was on your website?
  
29. How many unique visits did your website receive in 2011?
  
30. How many unique visits did your website receive from outside Tasmania?
  
31. Did you run any educational services, programs or events during 2011? What was the cost of running these?
  
32. Did you run any services, programs or events for disadvantaged or at risk sectors of the community? What was the cost of running these?
  
33. How much did you receive in government grants / subsidies in 2011?

34. Were you eligible for any tax exemptions in 2011?

35. Did you receive any public donations or bequests in 2011 (this does not include ... subscriptions, admission charges, service fees etc)?

36. Excluding grants and donations, what was your sales turnover in 2011? (Note: this includes artists' commissions)

37. Before partnering with SAC, was your commercial profit more or less? By how much?

38. In 2010, was your commercial profit more or less? By how much?

39. In 2012, will your commercial profit more or less? By how much?

40. In order to capture the benefits that are enjoyed by the community, we need to conduct a survey of 'users' of SAC. Would you be willing to distribute this survey to you client database on our behalf?

Y  N

*Thank you for participating in our survey. All individual responses will be managed in the strictest confidence. Aggregated findings will be presented in the SAC Annual Report and the UTas Cost-Benefit Study. The UTas Cost-Benefit Study will be completed by the end of 2012.*

*In the first instance, please refer all questions about this survey and the study to SAC.*

## Appendix 3: Community Survey

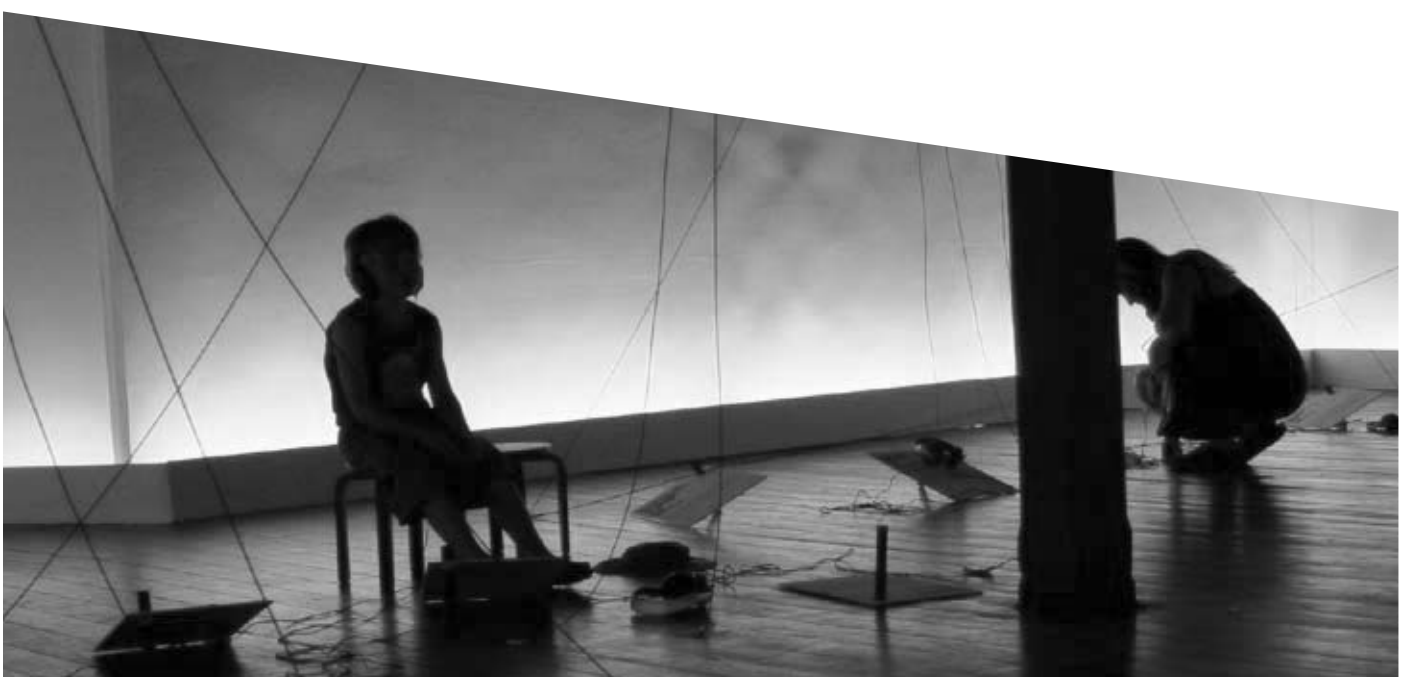
The following survey was delivered to 13,471 email addresses registered at the University of Tasmania Sandy Bay campus (Greater Hobart) in September, 2012. Participation was incentivised by a prize draw. A total of 1,507 valid responses were received for a response rate of 11.2 per cent.

As the sample was not perfectly representative of the population of Greater Hobart in terms of age and gender, the following weightings were applied to the sample:

*Table 3: Community Survey Weightings*

	Age	Weight		Age	Weight
Female	15 to 19	.97049	Male	15 to 19	1.85466
	20 to 24	.29981		20 to 24	.57295
	25 to 34	.64237		25 to 34	1.22760
	35 to 44	.92966		35 to 44	1.77663
	45 to 54	1.00252		45 to 54	1.91587
	55 to 64	1.49110		55 to 64	2.84956

With these weights, the p value of weighted gender distribution was 0.65 ( $p > 0.05$ ) which was not significant. Similarly, the weighted age distribution was also not significantly different from Greater Hobart age distribution with p value of 0.98 ( $p > 0.05$ ).



*Table 4: Willingness to Pay*

<b>WTP(\$)</b>	<b>Number</b>	<b>Percent</b>
0	787	53.1
20	228	15.4
50	232	15.7
100	148	10.0
250	19	1.3
500	40	2.7
750	11	.8
1250	5	.3
2000	11	.7
<b>Total</b>	<b>1481</b>	<b>100.0</b>

A positive attitude to the Arts was strongly correlated to WTP, and among respondents the older a person was, the more likely they were to value the Arts and make Arts purchases. WTP was also expressed quite conservatively. A little more than half of the respondents replied zero when asked if they were willing to pay to support SAC. Even among those who were not willing to contribute, about 15 per cent belonged to the highest income group. Nearly one-third were willing to contribute small amounts of \$20 or \$50, and only ten per cent said they would contribute \$100. Contributions above \$100 were negligible.

### **Survey design**

Uncontrolled contingent valuation management (CVM) can be ineffective, and there exist a number of accepted, industry-specific guidelines for its conduct (Arrow et al., 1993; Lipscomb, Kummerow, Spiess, Kilpatrick, & Kilpatrick, 2011; Mundy & McLean, 1998; Sarah Wheeler & Damania, 2001; Wilson, 2006). Firstly, overestimation of value is common when reported or expressed WTP exceeds actual WTP, particularly in purely public goods (Lipscomb et al., 2011; Mundy & McLean, 1998); however, this can be avoided if respondents are reminded of budget constraints when presented with scenarios, and expressions of public support can be accounted for by narrowing the WTP range (Loomis, 1987; Mundy & McLean, 1998).

Due to the potentially extreme hypothetical nature of the questions, respondents can also fail to connect the scenarios to real world situations (Lipscomb et al., 2011, p. 290). This results in a hypothetical bias and can lead to unreliable responses, with respondents often reporting WTP above their actual WTP (Lipscomb et al., 2011; Mundy & McLean, 1998; Venkatachalam, 2004; Sarah Wheeler & Damania, 2001).

Results are improved when the survey attempts to value familiar, real world scenarios (Venkatachalam, 2004; Sarah Wheeler & Damania, 2001). It is also argued that although surveys may be hypothetical, they are no more foreign than buying unfamiliar or infrequent commodities (W. M. Hanemann, 1994).

To manage the risk of overestimation in the survey, respondents were first asked to reflect on what they actually pay at SAC and on the Arts. A reasonable hypothetical scenario—requesting philanthropy to replace reductions in government expenditure—that was tied to a realistic ceiling on how much people could commit (\$2,000) was then introduced. Even with this constraint, less than 0.6 per cent of respondents went for the maximum WTP, with over half (54.7 per cent) stating that they were unwilling to pay any amount. This suggested a certain degree of rationality in responses.

Strategic bias, on the other hand, occurs when an individual either understates their true WTP for a public good in the expectation that others would pay enough for that good ('free-loading'), or an individual assumes that their stated WTP value would influence the provision of the good and over-pledges. To overcome this, the study sampled a large number of respondents (n=1507) so within the spending constraints no single WTP response could distort the overall outcome. Respondents were also presented with a triple-and-one half bound dichotomous choice, whereby the valuation options were path dependent and progressively revealed.

Other potential issues with CVM / WTP surveys include the embedding effect, where respondents associates the value of part of the resource with whole value of resource (Ian J. Bateman, Langford, Jones, & Kerr, 2001; Mundy & McLean, 1998; Venkatachalam, 2004); and the sequencing effect, where WTP value for a particular good differs depending on the order of the good in a sequence (Venkatachalam, 2004). These effects occur most often in multi-good valuation studies, arising in particular when the WTP responses do not vary between questions seeking the value of a small element and a larger component. In other words, respondents do not distinguish between goods when the characteristics of one good are embedded in a larger good (Sarah Wheeler & Damania, 2001). This has been avoided here by focusing on a single good (SAC as an entity); accurate descriptions of the programs and benefits of SAC; logical ordering of the questions for clarity; and provision in the survey for the revision of bids (Arrow et al., 1993; Venkatachalam, 2004).

These potential biases illustrate why stated preference methods are not as effective as revealed preferences. As it can be seen, though, these biases are not insurmountable if

the survey is designed and administered carefully (Wilson, 2006). For that reason, there is a high degree of confidence in the method and findings. Future studies that build off this one are nonetheless encouraged to consider the following enhancements:

- When surveying, use face-to-face or telephone interviews in order to more accurately convey the hypothetical scenario and filter biases.
- Where it is possible to do so, identify more detailed and representative samples of age, gender, income, geography and Arts engagement.
- Distinguish and capture tourists in order to capture the significant and separate export effects.
- Incorporate a WTA scenario to highlight the relative availability of substitutes and provide a contrasting measure of consumer surplus.

## Survey instrument

You are invited to participate in a study of the economic, social and cultural value of the Salamanca Arts Centre. The study is being conducted by the University of Tasmania, and funded by the Salamanca Arts Centre and Enterprise Connect.

### **What is the purpose of this survey?**

The purpose is to investigate the extent to which users and non-users value the Salamanca Arts Centre.

### **Why have I been invited to participate?**

Persons over the age of 18 years are invited to complete the survey. Your consent to participate is implied by completing and submitting the survey.

### **What will I be asked to do?**

You will be asked to describe your relationship with the Salamanca Arts Centre and give your opinions on different statements made about it. The survey should take less than 5 minutes to complete.

### **Are there any possible benefits from participation in this study?**

This research will inform policy makers about broader social attitudes towards the Salamanca Arts Centre and the Arts in general. You can also win a \$200 gift voucher by completing the entry form at the end of this survey.

### **Are there any possible risks from participation in this study?**

There are no risks to participation in this survey. Your participation will be anonymous and confidential. We will not collect identifying information such as IP addresses and we will not use cookies to track user activity. All data we do collect will be password protected and accessible only by the research team.

### **What if I change my mind during or after the study?**

You are free to withdraw at any time without providing an explanation.

### **What will happen to the information when this study is over?**

As per the Australian Code for the Responsible Conduct of Research, the anonymous answers you provide in the survey will be confidentially and securely held for five years.

### **How will the results of the study be published?**

Results of this study may be published. You will not be identifiable in the publication of the results.

### **What if I have questions about this study?**

**If you have any questions about the research, please contact the Salamanca Arts Centre at [info@salarts.org.au](mailto:info@salarts.org.au), or the principal researchers.**

This study has been approved by the Tasmanian Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 7479 or email [human.ethics@utas.edu.au](mailto:human.ethics@utas.edu.au). The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0012743.





## General attitudes to the Arts

1 For the purposes of this study, the 'arts' includes professional and recreational expressions of literary, visual, performance, decorative and applied media.

Please choose the appropriate response for each item:

	Strongly disagree	Disagree	Agree	Strongly agree
Do you think the Arts benefit you as an individual?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think the Arts benefit disadvantaged groups in the community?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think the Arts benefit the wider community?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think the Arts create a positive view of Tasmania (eg as a tourist destination)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## SAC participation

2. Which of the following businesses or events at the Salamanca Arts Centre have you engaged with in the last 12 months?

Please choose all that apply:

- Exhibitions in the Long Gallery, Sidespace Gallery, Top Gallery, Studio Gallery,
- Kelly's Garden Installation Space or Lightbox Window Gallery
- Performances or Screenings in the Peacock Theatre
- Rektango in the Courtyard Friday Nights
- Australian Wooden Boat Festival / Festival of Voices
- Meetings, Workshops or Seminars in the Meeting Room
- [spacebar gallery]
- A Common Ground
- Acacia Grove Tasmania
- Artefacts
- Aspect Design
- Deja -Vu Books
- Gallery 77
- Gallery Salamanca
- Hammer and Hand

- Handmark Gallery
- Info Centre
- Inka Gallery Inc.
- Kudelka Productions
- Mature Artists Dance Experience
- Mezethes Pty Ltd
- Nolan Art Gallery & School
- Off Centre Gallery Inc
- Peacock Theatre
- Peter Barraclough Studio
- Quoll Artists Gallery
- Rebecca Roth
- Revolve Arts
- Roar Film
- Solid Orange Productions
- SPACE Training
- Tasmanian Regional Arts
- Tasmanian Theatre Company
- Tasmanian Woollen Company
- Tasmanian Writers Centre
- Terrapin Puppet Theatre Ltd.
- The Art of Silver Co-operative
- The Australian Script Centre
- The Maker
- The Spindle Tree
- To Wish Upon a Star
- Tricycle
- WheelWeb Pty Ltd
- Wide Angle Tasmania Inc
- Writer's Cottage
- Gallery Exhibitions
- Outdoor venue events (Kelly's garden, front lawn, Salamanca Square Courtyard)
- Other:

4. In the last 12 months, approximately how much did you spend at the Salamanca Arts Centre?

Please write your answer here:

\$ .....

5. In the last 12 months, approximately how much more did you spend on the Arts in general?

Please write your answer here:

\$ .....

6. What benefits do you think you and your community have received from your engagement with the Salamanca Arts Centre?

Known outcomes of engagement with the Arts include physical, psychological, social, knowledge and symbolic benefits.

Please write your answer here:

### Willingness to pay

7. Please consider the following hypothetical scenario:

Due to rising costs, the Salamanca Arts Centre will require an increase in private support to maintain its current level of activity.

Would you or your business be willing and able to contribute - as either a donor or event sponsor - somewhere between \$20 and \$2,000?

Please choose only one of the following:

Y  N

The following questions are path dependent on the prior answers given:

Would you or your business be willing and able to contribute \$500?

Please choose only one of the following:

Y  N

Would you or your business be willing and able to contribute \$1,250?

Please choose only one of the following:

Y  N

**Would you or your business be willing and able to contribute \$100?**

*Please choose only one of the following:*

Y  N

**Would you or your business be willing and able to contribute \$2,000?**

*Please choose only one of the following:*

Y  N

**Would you or your business be willing and able to contribute \$750?**

*Please choose only one of the following:*

Y  N

**Would you or your business be willing and able to contribute \$250?**

*Please choose only one of the following:*

Y  N

**Would you or your business be willing and able to contribute \$50?**

*Please choose only one of the following:*

Y  N

## Demographics

**8. Are you...**

*Please choose only one of the following:*

Female / Male

**9. How old are you?**

*Please choose only one of the following:*

Under 15

15 to 19

20 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65 or over

**10. What is your average household income?**

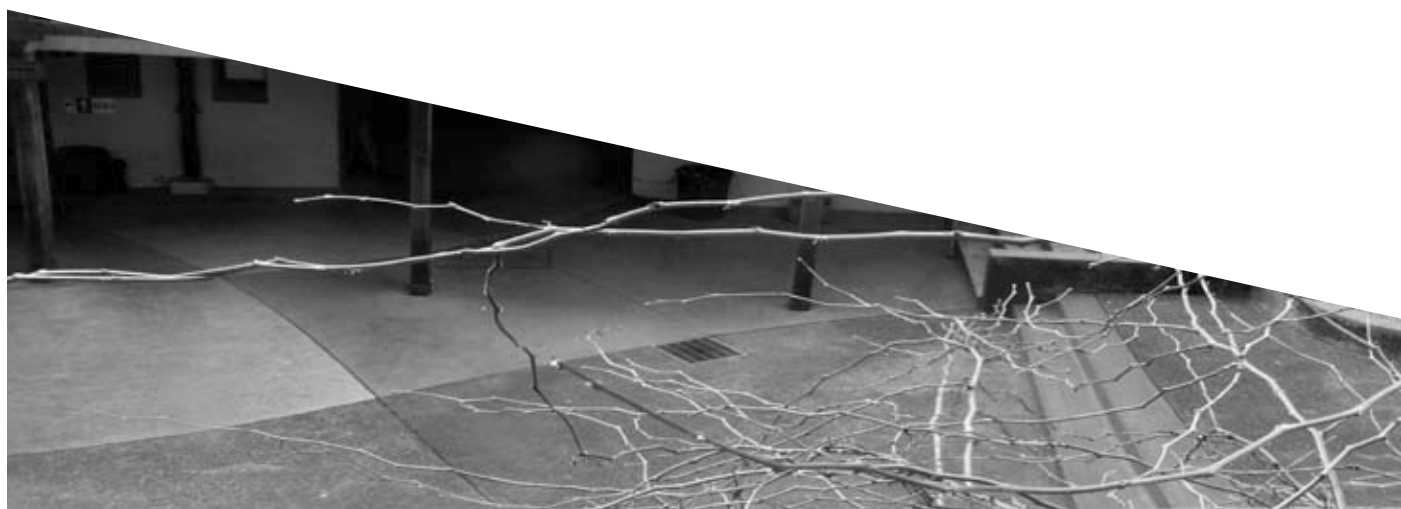
*Please choose only one of the following:*

- Under \$30,000 per year (\$577 per week)
- \$30,000 to \$49,999 per year (\$577-\$962 per week)
- \$50,000 to \$69,999 per year (\$963-\$1,346 per week)
- \$70,000 to \$89,999 per year (\$1,347-\$1,731 per week)
- \$90,000 to \$109,999 per year (\$1,732-\$2,115 per week)
- Over \$110,000 per year (\$2,115 per week)



## Glossary

2011-12 1	July, 2011 – 30 June, 2012
ABS	Australian Bureau of Statistics
ANOVA	Analysis of Variance
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
CBA	Cost Benefit Analysis
COAG	Council of Australian Governments
CPI	Consumer Price Index
CVM	Contingent Valuation Method
DALY	Disability Adjusted Life Year
GDP	Gross Domestic Product
GSP	Gross State Product
GST	Goods and Services Tax (Australia)
GVA	Gross Value Added
HCC	Hobart City Council
I/O	Input / Output (modelling)
NFP	Not For Profit
NOAA	National Oceanic and Atmospheric Administration
OECD	Organisation for Economic Co-operation and Development
PAR	Population Attributable Risk
RIOM	Regional Input / Output Matrix (Model)
SAC	Salamanca Arts Centre
SPACE	Salamanca Performing Arts Course in Entertainment
VS LY	Value of a Statistical Life Year
WHO	World Health Organisation
WTA	Willingness to Accept
WTP	Willingness to Pay



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