Tasmania's

Cost Indexation

for Government Purchasing of Community Services

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Statement of Interests:

Professor David Gilchrist is Director of the Centre for Public Value at the University of Western Australia. He has received funding from governments, peak bodies and individual organisations for various research projects and consulting support predominantly related to the Not-for-profit human services industry, Not-for-profit financial and performance reporting, sustainability and outcomes reporting, and policy and practice related to those areas. He has been a director and chair of a number of human services and policy organisations over past years and is currently chair of two policy-focused Not-for-profits operating nationally in the education sector.

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Contents

Reading this report

Prior to reviewing the findings contained in this report and considering the recommendations, we believe readers should examine this section in order to understand the nature of the data used and other relevant information. The purpose of this document is to report on our findings following an analysis of data provided by selected community service organisations (CSOs) in Tasmania. The aim of the study is described in more detail below though we examined the results of our data collection in the context of determining the appropriateness of current indexation amounts and prospective models.

As such, this report has been developed using two data sources:

1) Data collected from Tasmanian CSOs between October and November 2022. The data was collected from selected organisations that were also members of the Tasmanian Council of Social Service (TASCOSS) and/or collaborating Tasmanian peak bodies. This data was collected for the financial years ending in 2019, 2020 and 2021 and comprised financial, activity and human resources components collected via a template MS Excel spreadsheet; and

2) The Australian Charities and Not-for-profits Commission data cube populated by registered charities with head offices domiciled in Tasmania and collected from Annual Information Statements. The data used was for the 2019 and 2020 financial years and comprised financial data only.

The research team also considered two indexes commonly used to calculate indexed change. These are fundamental formula that are applied by organisations such as the Australian Bureau of Statistics (ABS) which uses the Laspeyres Index Formula when it calculates indexes such as CPI. We examined whether or not it would be feasible to use the data provided by CSOs to calculate the indexation required. We report on the outcomes below, however, the relevant index formulas are:

- Chain Weighted Fisher Index (Fisher Index): this is statistically the best formula for calculating changes in costs for the community service industry. However, it is a more complex formula and difficult to collect sufficient appropriate data for.
- Laspeyres Index Formula (Laspeyres Index): this formula is a less complex method of calculating changes in expenses. It has the added advantage that the Australian Bureau of Statistics (ABS) uses this method when it calculates the indices that it publishes.

This document is a part of a set of two documents examining indexation in Tasmania and readers interested in a deeper analysis and understanding of this aspect of the study should review the publication cited below, particularly where we examine the processes, calculation and challenges of indexation more thoroughly. The citation is:

> Gilchrist, D. J. & Feenan, C., (2022), Human Services and Cost Indexation Methodologies in Australia, a report developed by the Centre for Public Value, UWA Business School, Perth, Australia.[i]

Further, this document reinforces findings reported in the Centre for Public Value's recent study of Tasmania's community services industry where an examination of the state's charitable sector found, amongst other things, that services procured by government were materially under-priced and that it cost this sector $9m to deliver additional services to the community in 2020. It also reinforced the economic contribution of the charitable sector showing that Tasmania's healthcare and social assistance industry (the sector to which the social services industry belongs) contributed 13% to GSP and employed 15.8% of the state's workforce in 2020. The citation for this report is:

Gilchrist, D. J. & Feenan, C., (2022), Tasmania's Community Services Industry: Sustainability and Market Failure Risk, a report of the Centre for Public Value for the Tasmanian Council of Social Service, Hobart, Australia.[ii]

Key research findings

Our calculations suggest an indexation rate of 9.5% for the approaching financial year is appropriate

→ **After analysing the year-on-year cumulative impact of apparent under indexation, we have identified that the indexation rate of 9.5% for the 2023/24 financial year is likely to go some way to maintaining capacity in the immediate term while longer term recommendations are considered.**

Current indexation levels are inadequate to maintain the sustainability of Tasmanian community service delivery

→ The current indexation arrangements mean funding to community service organisations for government-procured services is not keeping pace with inflation. For instance, State Government indexation for 2020 and 2021 was 2.25% for each year while the reported change in expenditure for the median community service organisation (CSO) was 13.1% and 9.2% respectively after adjusting costs down for the activity change proxy. Further, anecdotal evidence suggests not all government departments pass on the indexation value to all CSOs.

This reduces sustainability

→ While indexation constitutes one element of sustainability for CSOs, a failure to appropriately index prices paid reduces sustainability and significantly increases risk to vulnerable individuals and communities that need services and supports. This finding aligns with our finding in our recent examination of the Tasmanian community service industry wherein we identified that the service mix is likely contracting as a result of financial pressure.[1]

Traditional measures used in other Australian jurisdictions are also inadequate

→ A number of other Australian jurisdictions use a combination of CPI and the Wage Price Index (WPI) as a proxy for calculating the actual cost change experienced by the industry. The following chart demonstrates that both CPI and WPI are materially deficient in terms of the cost change experienced by the median CSO.

Reductions in profitability of the industry over many years confirms the findings here

→ A significant reduction in profitability of the median CSO was reported for 2019 and 2021 (↓17.9% and ↓56.8% respectively year-on-year)—lack of profitability is likely an embedded issue that was emphasised by COVID rather than caused by COVID. The CPI for Hobart of 8.6% for the third quarter of 2022 is indicative of the case that the impacts on costs caused by COVID have not contracted.

Evidence gathered demonstrates current indexation levels are likely significantly under providing for cost increases

→ The table on the following page below shows the significant shortfall between the indexation provision for the 2020 and 2021 financial years and the median CSO's change in expenditure.

[1] See: Gilchrist, D. J. & Feenan, C., (2022), Tasmania's Social Services Industry: Its Sustainability and Economic Contribution, a report of the Centre for Public Value Research Team for the Tasmanian Council of Social Service, Hobart, Australia. Available here:

Summary of Comparative Results	**2019 - 2020**	**2020 - 2021**
Tasmanian Government Indexation	2.25%	2.25%
Aggregate Change in Expenditure CSOs	***7.8%***	***4.7%***
Median Change in Expenditure CSO	***13.1%***	***9.2%***
Consumer Price Index-Hobart[iii]	*1.7%*	*3.0%*
Wage Price Index - Tasmania[iv]	*1.6%*	***2.7%***
Wage Price Index - Health Care and Social Assistance-Australia[v]	*3.2%*	*1.9%*
Median CSO Labour Cost Increase (Adjusted for Service Change)	***8.4%***	***3.8%***
Employee Expenses Increase Median ACNC Data	*6.4%*	-
Total Expenses Increase Median ACNC Data	*5.4%*	-
Consumer Price Index – Health - Hobart[vi]	*0.7%*	*4.6%*
Producer Price Index – Other Allied Health Services - Australia[vii]	*2.2%*	*3.2%*
Aggregate Change in CSOs Profit/Loss Reported	*-32.5%*	*-52.7%*
Median Change in CSOs Profit/Loss Reported	*-17.9%*	*-56.8%*

Research Objective – Sustainability and Indexation

The purchasing of community services by governments is a challenging policy area. All parties—governments, the community services industry and the community—want governments to be efficient in the use of public funds as there is no advantage to anyone if governments are not so. However, in order to be efficient, the purchase price paid by governments for community services must support the sustainability of the industry.

To be sustainable, there are three components of resourcing that are important to maintain. These are reflected in figure 1 below and are:

1. The regular realignment of multi-year contracts with the real cost of delivering services.

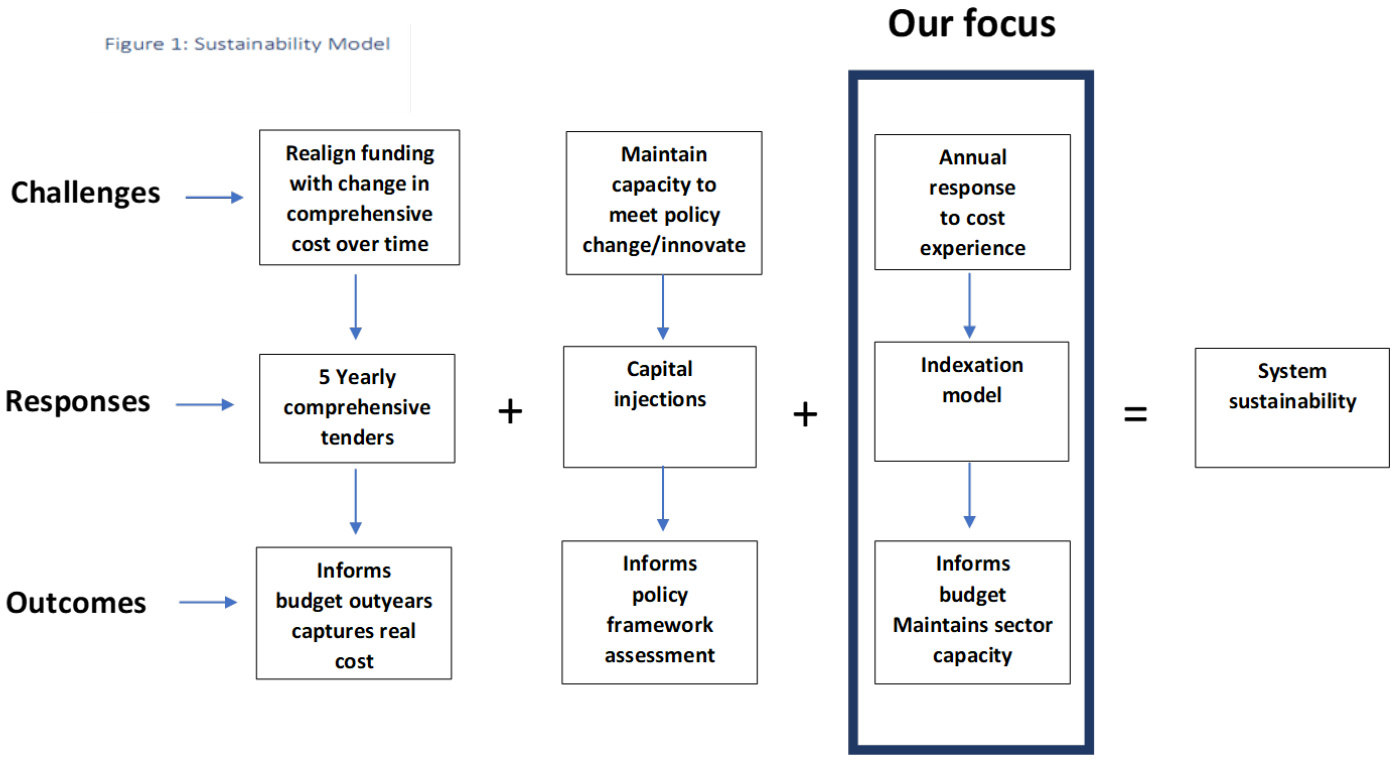
2. The capitalisation of the service industry to allow timely and effective responses to economic, social and policy changes.

3. The establishment of a sound indexation calculation process that allows the industry to respond to iterative changes in the cost of production over the life of a multi-year contract (i.e. in between resetting the base through the re-contracting process identified in item 1 above).

Getting indexation right is critical to maintaining industry sustainability and reducing, as far as possible, the risk faced by people relying on these services.

However, the identification of the correct indexation rate can be difficult and it costs time and money to get right—impacting both the community services industry and the governments that purchase community services from that industry.

Figure 1: Sustainability Model



If indexation is calculated appropriately, it can:

- Insulate against unexpected service failure;
- Maintain the service mix; and
- Inform governments' budgets and outyears.

However, indexation is always retrospective because it is based on historical experience. It cannot meet: cumulative inaccurate/inadequate indexation gaps; significant cost increases in real time; or mitigate capital shortfalls resulting from government policy change. Nor can it support community services providers to respond to changes in need.

Therefore, getting indexation as right as possible is a critical element in the maintenance of the sustainability of community service delivery but it cannot resolve everything. However, getting it wrong increases the threat to sustainability on a cumulative basis as iterative indexation calculations are effectively carried forward until the next opportunity to reset contracts and re-base the indexation calculation.

Importantly, the increasing financial stress faced by the community services industry as reported anecdotally has reinforced concerns raised over many years as to the veracity of the current state government's indexation policy and calculation methodology. Further, a lack of transparency in how the figure is arrived at reduces the legitimacy of the outcome and reduces certainty for CSOs, forcing them to make decisions that potentially reduce services delivered—in terms of types and/or quality—to the detriment of vulnerable people and communities. This program of research is examining this issue with the intention of identifying a more relevant, efficient and effective indexation methodology.

Methodology

The intent of this research is to provide a response to the challenge of developing an appropriate indexation methodology using the following steps. Please note that, in order to assess cost increases we needed to differentiate between cost increases caused by changing prices (i.e. the actual costs rising) and cost increases caused by changes in activity (e.g. higher labour costs because more clients are served). The steps in the methodology were:

- Collect representative data from a selected panel of CSOs that are members of TasCOSS and/or collaborating Tasmanian industry peak bodies.
- The relevant time is constituted by the financial years ending in 2019, 2020 and 2021.
- Use that data to:
  - Understand the drivers of cost changes experienced over the relevant time
  - Proxy activity increases by reference to the change in net service income in order to estimate the likely cost increase net of activity changes (i.e. estimating costs that rose because of price rises rather than because of activity changes)
  - Populate an existing statistically relevant indexation model to compare the outcome with the indexation outcome set by the state government
  - Compare the results of the aggregate cost increases and the outcome arising from steps above to determine whether there is a suitable proxy for social services industry indexation available in the current suite of calculations regularly undertaken by the ABS (i.e. does the ABS already produce a suitable index figure in its current work?)
  - Develop appropriate recommendations if possible.

In undertaking this analysis, the research team:

- Examined the data collected from CSOs and represented the cost changes experience by calculating the aggregate cost change in proportion to the income generated in order to establish a proxy for activity changes—not all expense increases are caused by changes in pricing, activity changes impact aggregate changes in expenses as well. We then analysed the change in costs experienced by cost category by reference to the median organisation
- Examined the data from 359 ACNC registered entities (see below) and compared the cost change experienced by these organisations with that experienced by the CSOs that contributed data.
- Attempted to populate the Fisher Index model using the CSO data.

We were unable to populate the Fisher Index model or the Laspeyres Index model due to the lack of detail in the data received from CSOs. There were insufficient organisations providing a full suite of activity and cost data and so we only had access to an incomplete data set. We also determined to analyse and report on the median organisation's data as we were unable to effectively manage outliers with so few CSOs contributing a full suite of data. Therefore, we focused our attention on the median of cost change experienced by the CSO and the ACNC registered entities for comparison and quality assessment.

We consider that this method is both conservative and appropriate for the purpose at hand. Further information relating to the nature of the data is made available at the appendix.

Findings

Table 2 below shows the Tasmanian government's indexation calculation for the relevant years is almost six times less than the experienced cost increase reported by the median CSO for 2019-20 and almost four times less for 2020-21. It is also considerably less than half of the aggregate change in experienced costs reported by all CSOs.

After adjusting reported activity-sensitive costs for the median CSO using a proxy for activity change (increase in net service income year-on-year), it can be seen that median labour and labour-related costs have all been reported as increasing year-on-year significantly in excess of the indexation value applied by the state government (see table 3).

Table 2: Headline results – CSO median data adjusted for activity growth

	2019 - 2020	**2020 - 2021**
Tasmanian Government Indexation	2.25%	2.25%
Aggregate Change in Expenditure CSOs	***7.8%***	***4.7%***
Median Change in Expenditure CSOs	***13.1%***	***9.2%***
Consumer Price Index-Hobart[viii]	*1.7%*	*3.0%*
Wage Price Index – Tasmania[ix]	***1.6%***	***2.7%***
Wage Price Index – Health Care and Social Assistance-Australia[x]	*3.2%*	*1.9%*
Median CSO Labour Cost Increase (Adjusted for Activity Change Proxy)	***8.4%***	***3.8%***
Employee Expenses Increase Median ACNC Data	*6.4%*	-
Total Expenses Increase Median ACNC Data	*5.4%*	-
Consumer Price Index - Health - Hobart[xi]	*0.7%*	*4.6%*
Producer Price Index – Other Allied Health Services - Australia[xii]	*2.2%*	*3.2%*
Aggregate Change in CSOs Profit/Loss Reported	*-32.5%*	*-52.7%*
Median Change in CSOs Profit/Loss Reported	*-17.9%*	*-56.8%*

Table 3: Key cost changes experienced by CSO median entity adjusted for activity growth

Median CSO Reported Cost Change	**2019 - 2020**			**2020 - 2021**		
	Change based on Services		*Portion of Expenditure*	*Change based on Services*		*Portion of Expenditure*
Labour	↑	8.4%	77.0%	↑	3.8%	75.8%
Labour On-Costs	↑	12.6%	13.2%	↑	1.9%	13.2%
Agency Staff Costs	↑	36.6%	0.6%	↑	48.6%	0.5%
Mandatory PD/Training	↓	-9.8%	0.4%	↑	53.1%	0.3%
Other PD/Training	↓	-4.2%	0.1%	↓	-9.7%	0.1%
Training Staff Costs	↑	16.2%	0.3%	↑	50.8%	0.2%
Supervision	↓	0.0%	4.4%	↑	4.9%	4.2%

Median CSO Reported Cost Change	**2019 - 2020**			**2020 - 2021**		
Quality Control/Compliance Staff Costs	↑	8.8%	0.6%	↑	11.6%	0.5%
Milage/Travel Costs - Paid to Staff	↓	-30.2%	0.6%	↓	-21.8%	0.6%
Employee Recruitment Costs	↑	1.6%	0.2%	↑	40.7%	0.2%
Clerical Support Costs	↑	37.2%	0.3%	↑	3.1%	0.3%
Quality Compliance Staff Costs	↓	-1.4%	0.4%	↓	-1.2%	0.4%
OH&S Compliance Costs - Labour Costs	↑	2.1%	0.1%	↑	5.3%	0.1%

Importantly, the increase reported was 2.25 times the Wage Price Index for Tasmania for 2019/20 and 1.41 times the Wage Price Index for 2020/21. State WPI for 2019/20 and 2020/21 were 1.6% and 2.7% respectively compared to CSO aggregate labour only increases of 8.4% and 3.8% respectively with an increase of 13.1% and 9.2% respectively for the median CSO. An increase in for 2019/20 of 6.4% was also reported for the ACNC median.

There are reported a number of cost elements that moved according to expectations. For instance, employee recruitment costs and quality compliance costs have all increased commensurate with anecdotal evidence year-on-year. Importantly, OH&S costs have also increased by a material amount during this period (2.1% and 5.3% year-on-year for the median CSO).

Labour cost drivers extend beyond service delivery with many of the large expenditure increases being labour related. Increases in Training, Supervision, HR Staff, and Clerical Support Costs show increases flowing on from wage expenditure increases including the ERO and wage decisions.

Additionally, changes in operational arrangements (for instance, increases in quality assurance processes applied by government policy) also drove costs up as additional staff were required to meet obligations. Of course, superannuation increases represent a significant cost burden not represented in the WPI model.

Overall, clerical support costs were also reported as rising significantly over the period. Interestingly, supervision costs remained static in 2019-20 but increased in the following year constituting almost a 5% rise in this cost incurred by the median CSO.

Table 4: Key operational cost changes experienced by the median CSO

	2019 - 2020			**2020 - 2021**		
	Change from previous Year		*Portion of Expenditure*	*Change from previous Year*		*Portion of Expenditure*
Quality Control/Compliance	↓	-4.5%	0.1%	-	0.0%	0.1%
Marketing	↑	9.6%	1.0%	↑	16.5%	0.9%
HR Staff Costs	↑	7.4%	1.1%	↑	16.6%	0.9%
OH&S Compliance Costs - Exclude Labour	↑	8.8%	0.1%	↑	0.0%	0.1%
CALD-specific Costs	↑	8.5%	0.0%	↑	11.5%	0.0%
Volunteer Recruitment & Management	↑	44.8%	0.1%	↑	7.3%	0.0%
Volunteer Management Staff Costs	↑	7.2%	0.2%	↑	5.4%	0.2%
Volunteer Training Costs	↓	-78.0%	0.0%	↑	125.1%	0.0%
Audit	↑	3.1%	0.2%	-	0.0%	0.2%
External Accounting / Bookkeeping Costs	↑	14.2%	0.1%	↑	11.1%	0.1%
Legal Costs	↓	-19.8%	0.1%	-	0.0%	0.1%
Consultant Costs	↑	1.5%	2.1%	↑	102.0%	2.1%
Bank Fees & Charges	↑	3.6%	0.1%	↑	9.8%	0.1%
Interest Costs	↓	-7.9%	0.2%	↓	-13.8%	0.4%
Facilities	↑	0.2%	6.3%	↑	8.8%	6.9%
Motor Vehicles	↓	-2.5%	1.2%	↓	-12.7%	1.4%
Intra-State Travel Costs	↓	-31.2%	0.2%	↑	14.6%	0.2%
Inter-State Travel Costs	↓	-29.7%	0.0%	↓	-84.0%	0.1%
General Insurance Costs	↑	6.7%	0.6%	↑	3.3%	0.6%
Bad Debts Costs	↓	-2.7%	0.1%	↓	-73.5%	0.1%
All Other Costs	↑	7.3%	19.6%	↑	4.8%	19.9%
Depreciation Charged	↑	4.8%	3.4%	↓	-2.1%	3.4%
Amortisation Charged	↑	23.6%	0.2%	-	0.0%	0.1%
IT Subscriptions	↑	18.2%	1.0%	↑	31.7%	0.9%

Table 4 provides evidence of cost increases incurred by the median CSO for non-labour operational costs. It can be seen that strategic expenditure and administration costs have increased over time. For instance, Consultant costs, External Bookkeeping/Accounting costs as well as OH&S Compliance and Quality Control have all increased in the periods recorded above the measured CPI.

Of course, there may also be impacts arising from the COVID shock. For instance, Inter-State Travel, and Intra-State travel for instance were significantly reduced across the period. Additionally, a sharp increase in All Other Costs was reported. However, while COVID certainly caused costs to rise across the state's economy, there was not a corresponding reduction in costs as the immediacy of the COVID

crisis receded. Indeed, costs underwent a step change which has not been reversed as confirmed by Hobart's reported CPI of 8.6% for the September quarter of 2022. [xiii]

These findings are not extrapolatable for the entire industry. However, we have shown that the current indexation values do not characterise the cost impacts on the industry by a considerable margin. The flow on effects from these differences further impact organisations' operations and decisions. We also consider that the estimations are conservative given the impacts on profitability reported across the ACNC data set.

As shown in Table 5, expenditure as a portion of income for the ACNC median organisation has increased over the reported time with concomitant reductions in the aggregate net surplus reported by that entity—viz: ↓41.3% and ↓19.25% between 2019/20 and 2020/21 respectively. We note that the cause of financial distress is cumulative inadequate pricing while COVID has emphasised the financial pressure rather than being a root cause.

The impacts of unsustainable funding and income structures for non-profits have often been raised over time. While we can acknowledge these are realities for the industry, we can also see from the empirical evidence above that current indexation arrangements are contributing to unsustainable funding frameworks.

Table 5: Cost drivers - Median ACNC Data and modified z-score

	2018-2019		2019-2020	
Employee Expenses	↑	10.5% (0.10) [xiv]	↑	6.4% (0.09)
Interest Expenses	↓	-11.8% (0.34)	↓	-16.5% (0.27)
All Other Expenses	↑	8.2% (0.15)	↓	3.9% (0.19)

Estimating Cumulative Impacts of Year-on-Year Under Indexation

Table 6 provides an estimate of the cumulative shortfall for the median CSO assuming indexation of 2.25% per annum allocated by government. As can be seen, the total cumulative shortfall for the period 2019 to 2021 (covering two indexation periods) is 19%. This represents an annual shortfall of 9.5%. Given the increase in CPI experienced in financial year 2021/22 used as a proxy for general price increases across the economy, it is reasonable to expect that a 9.5% cost increase is a conservative estimate of required indexation for the approaching financial year. This is especially so when it is considered that annual CPI for Hobart was 8.6% for the third quarter of 2022.

Table 6: Cumulative Indexation Shortfall Year-on-Year

	2019-2020	**2020-2021**	**Cumulative**	**Difference from 2019 Base Year**
State Government indexation	2.250%	2.250%	4.550%	
Cumulative	102.250%	102.250%	104.550%	
CSO median expenditure	13.108%	9.230%	23.549%	
Cumulative	113.108%	109.230%	123.549%	
Total Cumulative Shortfall – 2 Years				**19.00%**
Average Annual Shortfall				**9.5%**

Concluding Comments and Recommendations

The examination of the evidence gathered via CSOs and the ACNC data cube reinforce concerns over the appropriateness of the current indexation model applied by the Tasmanian government. The ever-increasing financial pressure being experienced by CSOs will have a significant impact on their sustainability and, therefore, on the sustainability of service delivery with the people relying on the services and supports bearing the ultimate impact of service mix changes. The impact of COVID was to emphasise the growing lack of financial sustainability rather than to cause it and the impacts of COVID on economy-wide prices have not receded.

Directors and executives of CSOs have no choice but to respond to increasing pressures and reducing organisational sustainability by changing their service mix, including in relation to the quantity, quality, timing and location of service delivery. Such changes often occur with limited if any transparency and the impacts on the community can be devastating. We have also identified this and discussed the issues more thoroughly in a previous report.[xv]

Finally, we confirm that currently there does not exist a suitable proxy indexation model calculated by the ABS that would be effective in replacing the current inappropriate calculation.

There are three major responses possible here in order to rectify the indexation arrangements and we would suggest pursuing them concurrently given the need for immediate rectification and the prospects for achieving savings in the future:

1) That, for the next financial year, the Tasmanian government provide 9.5% indexation of pricing across government procured community services.

AND

2) The ABS already calculates a Health Care and Social Assistance Industry Index. This combined index is not adequate for the purposes of indexation of the community services industry in Tasmania as it does not reflect that industry. However, the state government and the industry peaks should collaborate to advocate for the ABS to develop a specific-purpose industry cost index for community services. This would reduce the cost to the state government and the industry while also ensuring the ABS contribution to both the community services and the healthcare industries is as relevant as possible.

OR

3) If recommendation 2 above is not found to be possible, use the Laspeyres Index as the basis for an industry index created collaboratively by government and the industry.[xvi] As reported above, the ABS uses this index in its industry indexation calculations and there is a real opportunity for the method to be applied in the Tasmanian social service industry context. The industry peak bodies and the state government should collaborate to confirm the relevance of the Laspeyres model and undertake the indexation calculation using that model on an annual basis. This would require:

    a. The identification and allocation of resources from government in order to support the implementation process and the ongoing operation of the scheme, including in

relation to the provision of financial support to CSOs chosen as part of the panel to contribute their data.

b. The industry and state government to agree a panel of CSOs from which data will be collected with panel members being selected based on the need to represent the industry in Tasmania.
c. The industry and state government agree the data attributes required.
d. The establishment of a data collection process (preferably automatic and direct – may require a capital injection).
e. The establishment of analysis and reporting processes, including the identification of a body to undertake these processes.

Rectifying the indexation methodology will help ensure sustainability, efficiency and effectiveness in the delivery of community services in Tasmania into the future.

Appendix

Data and Analysis Limitations

The quality and quantity of data available for the analysis of the community services industry in Tasmania are, like that of other jurisdictions in the Commonwealth, limited. This impacts the extent to which the analysis can be said to be representative of the entire industry in the state. This is a well-known phenomenon and has been well documented.[xvii]

The data used was limited to the financial years 2019, 2020 and 2021 due to the varying balance dates used by contributors and the availability of data from the ACNC (charities registered with the ACNC and which have their head office in Tasmania), which we use to triangulate our analysis. Collecting more detailed retrospective data would have cost the CSOs considerably in time and money while the value of the data was unlikely to change the outcome of the research. Further, the following should be considered by readers:

- Data cleaning ensured that representative data from the ACNC records remained relevant to this research: Basic Religious Charities (BRCs), charities that did not receive any financial resources via government grants or government procurement, and any charities operating outside of the scope of community services were removed from the data set.

- In all, while we were able to identify relevant data from 465, 471 and 569 registered charities for the 2018, 2019 and 2020 financial years respectively, we were only able to use the data from 359 ACNC registered charities because they were the only organisations that fell into the pool of analysed charities with continuous registration for the three years relevant to the study. See table 1 below..

Table 1: Non-applicable charities removed from the ACNC Sample

	2018	2019	2020
Total Charities registered – Tasmania	1,134	1,075	1,225
Basic Religious Charities	224 (19.8%)	188 (17.5%)	232 (18.9%)
Non-recipients of government funding	445 (39.2%)	416 (38.7%)	424 (34.6%)
Remainder of charities	**465 (41.0%)**	**471 (43.8%)**	**569 (46.4%)**

- There may exist additional organisations relevant to this study. For instance, the ACNC withholds reporting on some charities for numerous reasons.[xviii] Additionally, there are registered charities that operate in Tasmania and which are not captured because their head office is in another state. These charities are therefore not listed within the reporting of the AIS statements. Finally, not all recipients of government financial resources for social services are considered charities nor registered as charities. Therefore, these figures are likely to be understated.

- Cost indexes and formulas incorporate price and quantity of goods for comparison of cost across time periods. This creates difficulties in relation to data collection because CSOs do not usually maintain their data in a way that supports the requirements of an indexation calculation.

- Outlier detection and removal from such formulas—a common method of data management and cleaning—may not be appropriate as the outliers may be relevant to the picture being presented. This is an additional reason as to why we are primarily reporting on the median CSO only rather than the aggregate.

- However, the diversity of the industry is reflected by the distribution of the data. Indexation would account for the entirety of the industry with each datapoint considered. To remove outliers from such a varied distribution may reduce the appropriateness of the index. Even if this were to be statistically appropriate in considering the formula and if it were to fit the remaining data more suitably.

- Self-reported data from CSOs was contributed by 28 organisations. This means many organisations were not able to contribute, while, of those organisations who were able, some provided truncated data due to capacity constraints. Unfortunately, this impacted both the quantity of data received and the quality of that data.

Therefore, readers should be aware of the following restrictions in interpreting the results conveyed herein:

- The results published herein are specific primarily to the median organisation and evidence the change in the cost of operation experienced by that organisation.
- It is likely the quantum of the cost of operation expressed herein is not representative of the industry. However, our assessment of the data provided suggests that the causes, magnitudes and impacts of these changes are likely reflective of the experience of Tasmanian CSOs though the magnitude of impact may be differently experienced by individual organisations.
- Of course, using the median CSO as the primary analytical reference confirms that half of the CSOs submitting data were impacted more detrimentally and half less detrimentally than the median organisation.
- The data collection process may indicate further underrepresentation in the results. As the data collection was, ultimately, a self-reporting process, organisations who were able to contribute were those that had available resources to do so. Therefore, organisations who may be impacted more severely by financial pressure were unable to contribute for those very reasons and hence are not represented. Thus, it is likely that the financial pressure impacting the sector is more substantial than represented herein.

Readers with any queries or comments relating to the data, the analysis or any other aspect of this report should contact the authors.

[i] Available here:

[ii] Available here:

[iii] Australian Bureau of Statistics "Consumer Price Index (CPI) 17th Series." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=CPI&df[ag]=ABS&df[vs]=1.1.0&pd=2018-Q3%2C2021-Q3&dq=1%2B2%2B3.10001%2B20001%2B20002%2B20003%2B20004%2B20005%2B20006%2B115486%2B115488%2B115489%2B115493

%2B126670%2B999901%2B999902%2B999903.10%2B20.6%2B50.Q&ly[cl]=REGION&ly[rw]=MEASURE%2CTIME_PERIOD&ly[rs]=TSEST%2CINDEX

[iv]Australian Bureau of Statistics "Wage Price Index" Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=WPI&df[ag]=ABS&df[vs]=1.0.0&pd=2019-Q1%2C2021-Q3&dq=3.THRPEB..TOT..6.Q&ly[rw]=TIME_PERIOD&ly[rs]=SECTOR

[v] Australian Bureau of Statistics "Wage Price Index" Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=WPI&df[ag]=ABS&df[vs]=1.0.0&pd=2017-Q1%2C&dq=.THRPEB..Q%2BTOT...Q&ly[cl]=MEASURE&ly[rw]=TIME_PERIOD&ly[rs]=SECTOR

[vi] Australian Bureau of Statistics "Consumer Price Index (CPI) 17th Series." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=CPI&df[ag]=ABS&df[vs]=1.1.0&pd=2018-Q3%2C2021-Q3&dq=1%2B2%2B3.10001%2B20001%2B20002%2B20003%2B20004%2B20005%2B20006%2B115486%2B115488%2B115489%2B115493%2B126670%2B999901%2B999902%2B999903.10%2B20.6%2B50.Q&ly[cl]=REGION&ly[rw]=MEASURE%2CTIME_PERIOD&ly[rs]=TSEST%2CINDEX

[vii] Australian Bureau of Statistics "Producer Price Indexes by Industry." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?tm=producer%20price%20index&pg=0&hc[dimensions]=Index&df[ds]=ECONOMY_TOPICS&df[id]=PPI&df[ag]=ABS&df[vs]=1.0.0&pd=2018-Q3%2C2021-Q3&dq=1%2B4.8193755..Q&ly[cl]=TIME_PERIOD

[viii]Australian Bureau of Statistics "Consumer Price Index (CPI) 17th Series." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=CPI&df[ag]=ABS&df[vs]=1.1.0&pd=2018-Q3%2C2021-Q3&dq=1%2B2%2B3.10001%2B20001%2B20002%2B20003%2B20004%2B20005%2B20006%2B115486%2B115488%2B115489%2B115493%2B126670%2B999901%2B999902%2B999903.10%2B20.6%2B50.Q&ly[cl]=REGION&ly[rw]=MEASURE%2CTIME_PERIOD&ly[rs]=TSEST%2CINDEX

[ix]Australian Bureau of Statistics "Wage Price Index" Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=WPI&df[ag]=ABS&df[vs]=1.0.0&pd=2019-Q1%2C2021-Q3&dq=3.THRPEB..TOT..6.Q&ly[rw]=TIME_PERIOD&ly[rs]=SECTOR

[x] Australian Bureau of Statistics "Wage Price Index" Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=WPI&df[ag]=ABS&df[vs]=1.0.0&pd=2017-Q1%2C&dq=.THRPEB..Q%2BTOT...Q&ly[cl]=MEASURE&ly[rw]=TIME_PERIOD&ly[rs]=SECTOR

[xi] Australian Bureau of Statistics "Consumer Price Index (CPI) 17th Series." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=CPI&df[ag]=ABS&df[vs]=1.1.0&pd=2018-Q3%2C2021-Q3&dq=1%2B2%2B3.10001%2B20001%2B20002%2B20003%2B20004%2B20005%2B20006%2B115486%2B115488%2B115489%2B115493%2B126670%2B999901%2B999902%2B999903.10%2B20.6%2B50.Q&ly[cl]=REGION&ly[rw]=MEASURE%2CTIME_PERIOD&ly[rs]=TSEST%2CINDEX

[xii] Australian Bureau of Statistics "Producer Price Indexes by Industry." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?tm=producer%20price%20index&pg=0&hc[dimensions]=Index&df[ds]=ECONOMY_TOPICS&df[id]=PPI&df[ag]=ABS&df[vs]=1.0.0&pd=2018-Q3%2C2021-Q3&dq=1%2B4.8193755..Q&ly[cl]=TIME_PERIOD

[xiii] Australian Bureau of Statistics "Consumer Price Index (CPI) 17th Series." Explore.data.abs.gov.au. Available at: https://explore.data.abs.gov.au/vis?fs[0]=Economy%2C0%7CPrice%20indexes%20and%20inflation%23PRICE_INDEX_INFLATION%23&pg=0&fc=Economy&df[ds]=ECONOMY_TOPICS&df[id]=CPI&df[ag]=ABS&df[vs]=1.1.0&pd=2018-Q3%2C2022-Q3&dq=3.10001%2B20001%2B20002%2B20003%2B20004%2B20005%2B20006%2B115486%2B115488%2B115489%2B115493%2B126670%2B999901%2B999902%2B999903.10%2B20.6%2B50.Q&ly[cl]=REGION&ly[rw]=TIME_PERIOD&ly[rs]=TSEST%2CINDEX

[xiv] the modified Z-Score (in parentheses) represents the adjusted standard deviation highlighting the movement on either side of the presented score.

[xv] Gilchrist, D. J. & Feenan, C., (2022), Tasmania's Social Services Industry: Sustainability and Market Failure Risk. A report of the Centre for Public Value for the Tasmanian Council of Social Service, Hobart, Australia. Available here:

[xvi] Gilchrist, D. J. & Feenan, C., (2022), Human Services and Cost Indexation Methodologies in Australia, a report developed by the Centre for Public Value, UWA Business School, Perth, Australia.
[xvii] For instance, please see Gilchrist, D. J., P. A. Knight & T. Emery, 2020, "Green Paper 1: Data Assets, Efficiency and the NDIS", A Report of Not-for-profits UWA, Perth, Australia available at: https://www.uwa.edu.au/schools/Research/Centre-for-Public-Value/Publications

[xviii]Australian Charities and Non-Profits Commission, "Information on the Charity Register: Withheld Information", Available at: https://www.acnc.gov.au/charity/about-acnc-charity-register/information-charity-register/information-charity-register-withheld-information