National Disability Services

Manual

Costing and Pricing Tool v3.2

November 2015

Curtin University
Not-for-profit Initiative
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**The Curtin Not-for-profit Initiative**
Curtin’s School of Accounting established the Curtin Not-for-profit Initiative in 2011 following a refocus of research objectives toward industry-ready research outputs that are readily applicable in practice. As such, the aims of the Initiative are to:

1. Develop a body of research focused on practical and implementable outcomes that will enhance the resilience, efficiency and the sustainability of the Not-for-profit Sector Australia-wide;
2. Build significant and effective industry engagement in order to identify and prioritise the topics of research, and to facilitate dissemination and discussion of the findings to the best effect for the sector; and
3. Build a body of up-to-date, Australia specific knowledge that can be used to inform policy and practice within government, the Not-for-profit Sector and the broader community with a view to enhancing policy outcomes to the greater benefit of all communities in Australia.

**Contact Information:**
Professor David Gilchrist  
T: 08 9 266 7771  
E: david.gilchrist@curtin.edu.au  
Director, Curtin Not-for-profit Initiative  
W: curtin.edu.au  
GPO Box U1987  
Building 407  
Perth WA 6845  
Bentley Campus

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1 Preface

Welcome to the National Disability Services (NDS) Costing and Pricing Tool Manual (Version 3.2) which supports the NDS Costing and Pricing Tool (Version 3.2, the Tool). This revised Manual and the enhancements in Version 3.2 of the Tool have been built upon the Version 3.1 structure and methodology developed for NDS by Curtin University’s Not-for-profit Initiative in the School of Accounting (Curtin). NDS and Curtin believe this suite of resources represents a major contribution to capacity building in the Disability Sector in Australia and will contribute to the Sector’s long term sustainability.

The Tool and this manual should be read in conjunction with the National Costing and Pricing Framework for Disability Services (and the Costing and Pricing Learning Program (CPLP) both of which are available at cplp.nds.org.au. All of these resources are designed to be mutually supportive and to reinforce the ideas being put forward in a uniform and consistent way.

As it is the responsibility and prerogative of organisations to manage their finances as they choose, each organisation needs to decide whether to use the Tool fully or in part. Some may use other costing methods while some sections of the Tool may be irrelevant to the service model of others. Organisations are encouraged to obtain external advice if necessary in reaching that decision.

In any event, it is suggested that costing and pricing be undertaken in conjunction with a 5-year strategic plan and a 3-year financial plan. This will provide context to decision making. By having a clear view of future resource and capital demands the required profit mark-ups may be more clearly defined and more robustly advocated.

Overall we are very pleased with the outcome and expect it to be of great benefit to the sector and, through that, the wider community of Australia. We would welcome any suggestions for improvements and will attempt to make revisions without adding complexity or losing its general application.

For further assistance or to access additional materials for training and self-education, please visit www.cplp.nds.org.au.
2 Important General Notice

This document is intended to give users of the Tool an understanding of how to use the Tool, but it is not intended to be a stand-alone resource. Rather, users should consult appropriate professionals when they seek to utilise the Tool for their own organisation. Additionally, this Manual does not include descriptions regarding all aspects of the Tool nor does it necessarily provide information that is relevant to all Disability Services Organisations in every situation. While every effort has been made to design the Tool and the Manual to meet the needs of the widest possible audience within the Disability Services Sector in Western Australia, it is unlikely that these resources can mirror each exact situation or the experience of every Disability Services Organisation or other organisations that might choose to implement this resource. As such, every reader and user of these resources is strongly encouraged to consider every aspect of the Tool in the context of their organisation and to consider which elements fit or do not fit in that context. It is the users’ responsibility to ensure they understand how to apply these resources, to ensure they appreciate the suggested responses and outcomes of calculations made by the Tool, that they understand how such outcomes may be used or interpreted in terms of their funding arrangements and relationships with funders and also that they undertake a review of the resources to ensure they understand the extent to which there are gaps, errors or omissions relative to their organisation.

All costs and prices are calculated and quoted without considering the effects of the Goods and Services Tax (GST) and its particular application to Disability Services Organisations.

No responsibility is accepted by National Disability Services or Curtin University in relation to any errors or omissions, or any loss that might arise out of the usage of these materials.
## 3 Glossary

This glossary defines key terms related to costing and pricing generally and that are used throughout the Framework. It has been sourced from the National Costing and Pricing Framework for Disability Services and it is also intended for use in training and guidance material to ensure consistent application of terms outside of this document.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accounting cost estimates</strong></td>
<td>Accounting cost estimates are accrual adjustments made to reflect the consumption of resources, and are generally not cash items. For instance, depreciation expense is an accounting estimate – it reflects that portion of an asset that is consumed in the provision of a service during the period. This is a legitimate cost of service delivery and must be incorporated into the comprehensive cost.</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Activities refer to each of the service types provided by an organisation. This provides the basis for identifying each unit of measurement or a bundle of units of measurement. Historically, terms used by disability service providers include “program”, “service” and “package”.</td>
</tr>
<tr>
<td><strong>Allocation of costs</strong></td>
<td>To determine what a particular part of the organisation costs to run or what a service costs to deliver, you must allocate costs incurred that cannot be directly ascribed to an activity. Costs usually allocated include indirect costs, overheads and accounting cost estimates. The act of allocating costs is based on commonly used accounting processes but is subjective. Usually, organisations establish policies as a basis for allocation of costs.</td>
</tr>
<tr>
<td><strong>Ascription of costs</strong></td>
<td>The costs that are easily identifiable as being incurred as a result of a particular activity are ascribed to that activity. The process of ascription is straightforward and logical. It is objective. An example of an ascribed cost is direct support worker wages.</td>
</tr>
<tr>
<td><strong>Breakeven point</strong></td>
<td>The point at which unit of measurement sales volume is sufficient to recover all fixed costs, as well as variable costs, but insufficient to generate a profit. The relevant formula is: total fixed costs divided by the result of unit price minus unit variable costs, or: total fixed costs/(unit price - unit variable costs). Often, the denominator (unit price - unit variable costs) is referred to as the contribution margin.</td>
</tr>
<tr>
<td><strong>Bundle of activities</strong></td>
<td>A bundle is a group of activities or units of measurement that can be taken together for costing purposes because they are delivered jointly together. Rather than costing individual activities, it can be more efficient to cost bundles if each bundle is the same and each client in a cohort receives the bundle of activities or services. If there are variances in services provided between one client and the next, it is usually not appropriate to bundle the activities.</td>
</tr>
</tbody>
</table>
Capital
The amount of financial resources required to be invested in an organisation in order for it to provide the services that it is established to provide. It is usually an estimated element within the cost structure of an organisation. An estimate of capital includes such elements as working capital, the net investment in plant & equipment (e.g. the capital invested in IT, real estate / buildings and motor vehicles less any loans) and amounts set aside for the payment of employee entitlements or any other provision that is actually made in cash. The efficient use of capital (both cash and physical resources) as well as the cost of that capital becomes more important in a market oriented environment.

Comprehensive cost
The comprehensive cost is the total cost of providing a unit of measurement or a bundle of units of measurement. It includes all direct and indirect costs as well as accounting cost estimates and the cost of capital. It is calculated from time to time as an internal control calculation. It serves to inform those charged with governance of the true cost of service delivery and to provide a figure against which to assess actual funding / pricing received.

Consumption
The actual costs and accounting cost estimates incurred in providing a service. Everything that is consumed in providing a service should be included as part of the cost base of that provision including the exhaustion of volunteer time, donated goods and services and the cost of capital.

Contribution margin
The difference between unit of measure price and unit of measure variable cost, the denominator in the formula for the breakeven point. It is called the contribution margin because it is that portion of the unit of measure price that contributes to the recovery of fixed costs and profit after deducting the unit of measure variable cost. For example, if the unit of measure price is $100 and unit of measure variable cost is $34, then the contribution margin is $66.

Cost
The consumption of economic benefit associated with a past, immediate or deferred outlay of cash. A cost may have been incurred but may or may not have been paid. All costs have two characteristics; they are direct or indirect, fixed or variable. Recovery of all costs is necessary to ensure an organisation remains sustainable.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost driver</td>
<td>The specific activity that can be used as a basis for allocating costs on a pro rata basis. It is the most common element between all activities and is a sound basis for the pro rating of particular costs. For example, a building may accommodate several activities and programs, so the best choice of cost driver to allocate rent might be the floor space or square meterage used by each activity or program. The choice of cost driver is inherently subjective and is never 100% accurate. It should be based on simplicity, materiality, reasonableness and, preferably, consistency from year to year. The reason for choosing a cost driver should be documented as a key assumption. Different costs may be allocated using different cost drivers.</td>
</tr>
<tr>
<td>Cost estimation</td>
<td>The process of calculating the expected comprehensive cost for a unit of measurement, or a bundle of units of measurement, for a specific period, usually a year.</td>
</tr>
<tr>
<td>Cost pool</td>
<td>A grouping of costs that will be treated in the same way in a costing process. Generally, pooled costs are those that have similar attributes and are able to be allocated or ascribed together to a particular activity. For instance, all building costs (such as rent, electricity, water, rates, maintenance etc) would be pooled and then the total would be allocated pro rata to each activity based on, say, floor space used. Generally, the more costs included in a cost pool, the simpler the costing process and the less investment required in time and resources to achieve a costing outcome. However, the more costs included in a cost pool, the more generalised the cost estimate and therefore the less accurate the calculation.</td>
</tr>
<tr>
<td>Cost recovery</td>
<td>The process of setting a price for an activity so that the comprehensive cost of that activity is repaid. This includes the recovery of the cost of capital and the recovery of accounting estimates, and constitutes the profit margin added to the cost of service delivery to arrive at the price.</td>
</tr>
<tr>
<td>Costing</td>
<td>The act of allocating and ascribing costs against activities and programs.</td>
</tr>
<tr>
<td>Costing period</td>
<td>The period for which an organisation forecasts it’s expected costs and seeks to use that data to cost its activities or bundles of activities. Usually the costing period is the financial year. However, if an organisation feels that the environment is too volatile or that they are unsure of their costs, it can reforecast and re-cast its costing process at any time and for any period.</td>
</tr>
</tbody>
</table>
Deferred expenses
Consumptions related to real expenses, which will be met at some, often unknown, point. Examples are employment expenses associated with annual leave, sick leave and long service leave. These elements of cost represent a risk, as it is not known when they will be paid or what amount will be paid. The ultimate liability will be based on some future cost. They must be recovered at current values but are likely to be more expensive when they are actually paid.

Direct costs
A cost that is clearly attributable to an activity. It is incurred as a result of preparing for, undertaking and finalising the delivery of a unit of measurement. An example would be the cost of travel between clients’ houses to deliver services.

Direct overheads
Operating expenses incurred regardless of the level of actual activity and in direct support of that activity. Examples include rent of buildings from which services are delivered, salaries of managers who oversee service delivery and program acquittal audit fees—as opposed to corporate audit fees. The essential features of direct overheads are (1) they are incurred only in support of service delivery, and (2) they are fixed regardless of activity level within the context of the relevant range.

Efficient price
The efficient price is an economics term rather than an accounting term. It is the point where an arms-length buyer and an arms-length seller agree on a price. The buyer will not pay more for the item because they can get it for the efficient price elsewhere. The seller will not accept less because then they will not get an appropriate return on their investment and will move their capital into another business. Therefore, the efficient price is determined by market forces reflecting actual and local economic conditions. The efficient price will vary in different markets and for different market segments. The efficient price includes the cost of capital—that is, the return on investment required by the seller in order to make the transaction worthwhile.

Fixed costs
A cost that is incurred regardless of whether activities are undertaken (in contrast to variable costs). So, if the doors are not opened or services not provided, these costs are still incurred. Examples include rent, insurance and corporate head office staff such as the CEO, and could include IT/phone and legal compliance costs. These costs generally remain the same (“fixed”) for the budget period. However, they will change over time and when productivity rises beyond the current capacity of an organisation. In other words, costs are only ever fixed for a certain time and for certain levels of activity. Usually, when activity levels rise beyond the capacity of the organisation so that fixed costs are increased, we say that the organisation has moved out of its relevant range.
Incur**red cost** A cost that is actually paid or for which a liability exists to pay it at some future point in time. That is, there is a legal obligation to pay the cost regardless of whether cash has changed hands.

**Indirect overheads** Costs that are incurred regardless of the level of activity and not incurred in direct support of service delivery. Usually these would include head-office and other non-service delivery costs. The allocation of overhead costs must be made using a system that is equitable and fair. That is, all activities undertaken, regardless of the source of funding, must support a logically and equitably allocated portion of overhead costs.

**Mark-up** An amount added to unit of measure cost to arrive at the unit price. It is usually expressed as a percentage and should reflect a policy decision taken at board level. Components include:

1. base mark-up which is the minimum mark-up required to ensure sustainability and achieve the strategic plan;

2. an estimate of the cost of capital invested in the NFP to allow it to operate; and

3. risk mark-up which is intended to reflect risk associated with a particular program or service.

Programs can have different mark-ups. However, all mark-ups used should be considered in the light of the activity levels and profit required for sustainability.

The mark-up is different to the contribution margin as the former equates to a reward for risk and effort while the latter is simply a description of the amount of the income from the sale of a service left over after variable costs have been met.

**Materiality** Costs and activities that represent the bulk of the work of an organisation. An activity or program is material if it constitutes a significant proportion of the organisation’s work and it will have an impact on the organisation’s sustainability and capacity.
On-costs

Employee-related costs that are additional to gross salaries. These include annual leave, long service leave, superannuation, workers’ compensation insurance and award allowances and penalties. They may be paid during the period, or incurred and paid at a later date. Care should be taken when costing expenses that are paid at a later date to ensure the full cost is recovered. For instance, annual leave may be paid at a later date and at a higher rate of pay because annual leave is paid at the prevailing rate of pay at the time of payment, not that rate of pay that was relevant and the time of incurring the cost.

Overheads

A category of expenses usually incurred at a corporate or high level within the organisation. They are usually costs that cannot be attributed directly to an activity and will be incurred regardless of whether activities are provided. Examples of typical overheads include the CEO salary, head office expenses and directors’ and officers’ liability insurance.

Price achieved

The actual price paid by a funder/or purchaser for the unit of measure provided.

Pricing

The process whereby an organisation establishes the price it wishes to charge for the delivery of an activity. This price should be based on the comprehensive cost of a unit of measure and include a mark-up. The formula is usually described as: Target price = comprehensive cost + mark-up

Productivity

The proportion of a staff member’s time spent providing services directly to clients. It is time for which the organisation is paid and might include “client-facing” activities as well as preparation and post-service activities such as model development, care planning and maintaining client service notes. However, productive time is the time for which an hourly rate or some other price is paid. It is usually described as a percentage figure calculated by dividing the productive time by the total time the employee works. The productivity calculation is used to determine the staffing levels required in order to achieve the expected service delivery output upon which the costing and pricing of the organisation is predicated. The productive time is the chargeable time against which ALL of the comprehensive costs of service delivery must be recovered. This is sometimes referred to as the “client facing ratio”.

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Profit

Profit is that figure that remains after the subtraction from income of all consumptions (expenses) incurred during a particular period. It is necessary for an organisation to make a sufficient profit in order to maintain sustainability. It is not a surplus as the amount retained by the organisation is necessary to ensure ongoing viability, to provide working capital and to provide the financial capacity for asset replacement and other renewal processes.

Recovery risk

The risk that the price achieved is insufficient to recover the comprehensive cost of service delivery.

Relevant range

The level of activity in which the assumptions made about fixed and variable costs are true. For instance, if activity increases beyond a certain level, it may be necessary to increase fixed costs by employing a general manager or leasing more office space. Additionally, such an increase may cause the variable costs to be reduced as a result of economies of scale or to increase as a result of diseconomies of scale.

Safety margin

The difference between budgeted activity volume and the calculated break even point volume. It represents a buffer against an unexpected fall in activity volume that could result in a potentially loss-making level of activity.

Service delivery output

The provision of a single or multiple units of measurement. This can be measured in hours of service delivery, trips in a transport service and so on. It is also described as the activity levels.

Small-demand markets

A market where there is limited call for particular services. This can be because the services are of such a unique or specific nature or address a particular need that is uncommonly required even in large population centres. Small-demand markets may also be identified where there is a small overall population in a particular area and, as such, a commensurate small-demand for disability services across the board. Often, this second type of small-demand market occurs in rural and remote areas and is sometimes referred to as a “thin market”.

Span of control

Relates to the supervision of service delivery. It is used to denote the number of service delivery iterations (e.g. hour of service, trip or bed day) able to be supervised by one supervisor and is usually described as a ratio. For instance, where a supervisor has the capacity to oversee 15 service iterations the ratio would be described thus: 15:1. Many parts of the sector would describe this idea as the supervisory ratio and most would denote it in terms of numbers of people controlled rather than number of service iterations controlled or overseen.
<table>
<thead>
<tr>
<th>Standing ready to provide a service</th>
<th>A disability service provider is standing ready to provide a service if it has irreversibly committed resources to an attempted service delivery. If a client does not attend for a service, is unavailable or is unwilling to receive a service, the disability services organisation will still incur all of the costs associated with delivering the unit of measurement save for the usually immaterial value of variable costs. The costs that can be avoided by not delivering a service are typically very small components of the comprehensive cost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target price</td>
<td>The ideal price the organisation would want to charge for its services after taking into account the comprehensive cost and the margin required for sustainability and to achieve the organisation’s strategic plan. It is not calculated with reference to the actual price achieved but may be used to assess it and to develop financial management strategies.</td>
</tr>
<tr>
<td>Unit cost</td>
<td>The cost of delivering each unit of measurement after allocation of all costs; both direct and indirect. Unit cost plus mark-up equals unit price.</td>
</tr>
<tr>
<td>Unit of measure (UOM)</td>
<td>Each iteration of service provision. In most instances a UOM will be an “hour of service” but in respite services it could be an “occupied bed-day” and in transport maybe a “trip”. A UOM is the basis for charging the unit price.</td>
</tr>
<tr>
<td>Unit Price</td>
<td>The fee actually paid by a client for a service. It is usually established by the funding agency. For instance, under the NDIS, the NDIA will set this price.</td>
</tr>
<tr>
<td>Utilisation</td>
<td>Where a disability service provider successfully delivers a unit of measurement to a client, at an agreed time and at an agreed location. It is at this point that the disability service provider is able to invoice a client for a service. Utilisation includes instances where a disability service provider stood ready to provide a service at an agreed time and an agreed location but was unable to do so, due to the client’s non-attendance, unavailability or unwillingness to receive the service. This only applies when the disability service provider can no longer redirect resources to another client.</td>
</tr>
<tr>
<td>Variable costs</td>
<td>Incremental costs incurred whenever additional units of measurement are supplied (to be contrasted with fixed costs) and are considered to be uniform for each additional unit of measurement, although these costs do not necessarily have a lineal relationship to activity levels. Generally, we would say that these costs would not be incurred if the doors were not open and services not provided. Examples include support staff costs, fuel for vehicles used in providing a transport service, meals for clients in accommodation services and telephone calls. An understanding of variable costs is necessary when using the breakeven point analysis.</td>
</tr>
</tbody>
</table>
Volume

The level of activity undertaken. For instance, the number of units of measure actually provided. The volume can be forecast and actual.

Working capital

The level of cash required to operate the organisation. Usually it is calculated as current assets (focusing on cash and assets readily converted to cash such as debtors) minus current liabilities (focusing on creditors and bank overdraft).
4 Costing

The purposes of costing and pricing in the context of national and local procurement reforms are:

1. To establish the true cost of each service delivered by disability services organisations inclusive of all resources consumed in that process; and
2. To enable disability services organisations to determine a service delivery price that ensures long term organisational sustainability.

4.1 Costing

To assist in achieving those purposes the following general principles underpin this Manual and the Tool:

- Costing is a forecasting and iterative process. Changes to the operating environment, particularly in industrial awards, as well as past costs from previous financial records and statements are valuable guides to future costs.
- Organisations need to forecast the cost of delivering each service they provide (referred to as Service Delivery Units) and the cost of commercial and fund raising activities.
- In determining the cost of delivery for each service, decisions are required as to allocation of costs to those services entailing inherently subjective judgements particularly relating to Indirect Costs.
- The allocation of costs is a subjective process involving arguable assumptions that will never attain perfection.
- There is cost incurred in undertaking a costing exercise in both time and money and the more complex and detailed the process is, the more it will cost. That cost incurred should always be outweighed by the benefit derived. At times, it will be better to allocate costs less precisely than to expend time and money in achieving unattainable perfection. Materiality is a key consideration in this regard.
- The allocation of costs entails apportioning costs based on cost drivers which can be, for example, the number of staff involved in the delivery of each service, income produced by each service or hours of service delivery. Cost Drivers must be relevant to all programs over which costs are to be allocated.
- A decision on Cost Drivers should be underpinned by an objective of equitable allocation ensuring that all service delivery programs, both funded and non-funded activities (for instance, fundraising and commercial activities), bear an appropriate share of costs.
- All costing and pricing assumptions, policies and calculations should be documented and transparent.

4.2 Mark-up and Price

Once the costing process is completed, it is necessary to determine a mark-up and derive a price. This may be a confronting and foreign challenge for organisations given that previous funding and service delivery arrangements have been based on set rules and parameters. There are few guiding precedents for setting mark-ups and prices and there is the ever present reality that mark-ups will invariably be influenced by the willingness and capacity of funders to pay. Funders will also be approaching this subject from a standpoint of no prior experience.
Some strategic considerations may include:

- That the overarching objective of a mark-up is sustainability – including financial and service sustainability and ongoing capacity building and development
- The unsustainability of pricing based on cost recovery alone
- A mark-up to reflect and contribute to the achievement of goals contained in 3-5 year strategic and similar length financial plans that are documented and rationalised to withstand scrutiny
- An annual budget that reflects a 3-5 year financial plan with both costs and prices translating into the annual budget
- A mark-up with two elements, one being a base mark-up to achieve financial plan goals and the other a risk mark-up to reflect operational risks
- Whether to use pre-existing financial reserves instead of risk mark-ups as a buffer against unforeseen costs (e.g., program termination costs or under-recovery of fixed costs due to lower than expected service delivery volumes)
- The importance, from a mission standpoint, that a particular service be offered and the influence this may have on the mark-up for that service
- Probability that negotiations with funders will precede final agreement on prices
- Competition and funder expectations likely impacting upon the achievability of a desired mark-up (so organisations should prepare for price negotiations with funders)

NOTE: The Costing and Pricing Tool allows for different mark-ups in circumstance where the required return for individual programs or accommodation services vary.

4.3 Federal / State / Territory Inconsistencies

This Manual and the Tool are not purely focused upon the impact of the NDIS. Rather, while these resources are designed to assist with the NDIS, they are focused upon considerations of financial sustainability. Therefore, it is imperative that organisations consider all forms of funding and their course rather than just the NDIS.

Inconsistencies between the relative approaches of state and federal funding agencies will be a feature of the Sector’s ongoing funding landscape. Foreseeably, state funding agencies will be bound by the State Government’s procurement reforms and federal funding agencies will likely continue using existing arrangements.

In managing such inconsistencies it is suggested that costing and pricing be undertaken regardless of the terms of particular funding arrangements. Organisations should consider the prevailing arrangements between them and funders a step beyond the costing and pricing process.

Organisations funded by state and federal agencies may be guided by the following:

(a) All costs should continue to be allocated according to cost drivers. Only then may any cross-subsidisation or over- or under-funding of programs be identified thus enabling remedial action. Accurate costing, regardless of funding arrangements, is vital information to management and supports the committee/board in their deliberations.
(b) Cross-subsidisation between state and federally funded programs will become more apparent and potentially transparent as a consequence of using the Tool.

(c) Historically, a funder’s requirement that certain business rules be adhered to has been addressed by organisations at the acquittal stage which occurs subsequent to the costing and pricing process. An example of this is a requirement that administration costs be capped at a certain percentage of funding.

4.4 Preparing for Transparency in Funding Negotiations

Procurement reform, and use of the Tool, presents an opportunity for greater transparency as to costs and prices. Such transparency may well assist organisations in their negotiations with funding agencies.

Furthermore, inevitable differences in costs and prices arrived at within the disabilities sector may well necessitate each organisation being more transparent towards justifying particularly higher costs and prices.

Therefore, it may be wise to prepare for greater transparency and the opportunities that could present. Such transparency could extend to substantiating methods of cost allocation supported by documented assumptions, considered discussions, and policies on reasonableness and consistency at board and executive management level.

Organisations should give consideration to the documentation they should keep regarding the costing and pricing processes to ensure they can meet any funder expectations as well as support their pricing submissions. Furthermore, the documentation maintained should enable the passing on of knowledge in the event of board and management personnel changes.

The keys to a system of costing and pricing are robustness and defensibility which includes sound decision making processes and policies and record keeping and documentation.
5 Hints and Tips
When using this Manual and the Tool, the following tips might be useful:

- Always keep a blank master copy of the Tool (i.e., prior to entering data, save the Tool under another name and leave the master copy untouched).
- Develop a file naming convention to reflect different uses of the Tool and to ensure that a history of costing exercises is retained. Different uses could reflect, for instance, interim or final versions, stages of board scrutiny, alternative cost allocation methodologies, different service volume levels or what-if scenarios.
- Keep working papers that support data entered in the Tool. It is sound practice to make notes regarding your off-spreadsheet calculations, costing decisions and subjective judgements and assumptions. Subsequent referral to your notes may be necessary when negotiating with funders.
- Always check for reasonableness when entering data in the Tool and reviewing the costing results. Never assume the workbook is correct – EVER. Ask questions like:
  - How do the costs compare to last year?
  - Is this income achievable?
  - Is this what I expected?
  - Does that make sense?
  - Are unexpected costing results explainable?
- When entering data (particularly cost allocation data) always check to ensure there are no red highlighted errors before proceeding to the next worksheet.
- Historical accounting information and annual budgets are the best place to start a costing exercise.
- Costing and pricing is most effectively undertaken through enterprise-wide engagement with all levels of management and should not be isolated within the accounting department.

6 Microsoft Excel Compatibility
The Tool is a Microsoft Excel workbook that runs on Microsoft Excel 2007 or later versions. Earlier Excel versions do not support all features of the Tool.

7 Purpose of the NDS Costing and Pricing Tool v3.2
The Tool is designed for use within the disability services sector to capture all costs, to ascribe or allocate those costs to the delivery of units of service and apply a mark-up to arrive at a price for those units of service. The Tool is comprised of seven principal worksheets, some of which will not be relevant to all disability organisations. Users should understand how each worksheet works before relying on any inbuilt costing and pricing formulae and ensure that all elements are the best resource for their specific requirements before undertaking a costing exercise.
8 Navigating the Tool

8.1 Structure
The Key Data worksheet records information that either auto populates other cells or influences calculations throughout the workbook.

The People, Property, Vehicles, Direct OH and Indirect OH worksheets are for entering service-specific source cost data.

The Pricing worksheet uses the annual costs and other data collected by the People, Property, Vehicles, Direct OH and Indirect OH worksheets to calculate unit costs and prices.

The Client Calculator worksheet enables individualised quoting from a menu of available services.

8.2 Conventions
A Conventions worksheet describes the visual look and feel of the Tool. In summary, cells requiring input will be shaded yellow (regular input), blue (choose from a dropdown menu) or rose (Administrator set-up). Cells intended for input are unprotected and they are the only cells editable when worksheet protection is enabled.

8.3 Data Integrity Checks
The Tool utilises a number of checks for mathematical accuracy (eg, that two cells which should be equal are equal). Cells which contain a check formula will turn red if they return an incorrect result and either display the result or the message “ERROR”. The appropriate action is to review and correct the input data.

Users should not rely solely on these cells to ensure accuracy of work undertaken. Unlike accounting systems, the Tool does not utilise the self-correcting feature of double entry bookkeeping. Hence, extra care is required to ensure that all costs are captured so repeated referral to historic costs recorded in your accounting system is encouraged. The data integrity checks cannot and do not test for omitted or erroneously entered costs.
9 How to Complete the Tool

Follow these step by step instructions as a guide to completing the Tool. Leave blank any worksheets that are not applicable to your organisation or which you think can be undertaken outside of the Tool and in a way that is more relevant to your operations.

Additionally, you should be aware that this Manual is likely to change in the future as further refinement is made to the Tool. Therefore, users should also review the NDS website for updates before commencing a costing and pricing exercise.

9.1 Information

Establish the identity of the workbook.

Step 1.1: Enter identifying information:
- Organisation: The name of your organisation
- Year: The year to which the data relates (whether calendar year, July-to-June financial year or other)
- Prepared by: The name of the person or team who prepared the data for the Tool and populated the Tool
- Reviewed by: The name of the person who reviewed the populated Tool and endorsed it for approval
- Approved by: The name of the person who approved the populated Tool

9.2 Key Data

The Key Data worksheet is the primary reference resource in the Tool.

Step 2.1: Enter calendar information:
- Number of days in year (use the number which best suits your needs, eg, 365 for a standard year, 366 for a leap year, 365.25 for an average year or 364 for an even 52-week year)

Step 2.2: Enter payroll information:
- Public holiday weeks per year
- Sick leave weeks per year
- Long service leave (LSL) rate (%)
- Backfill uplift rate (%)
- Superannuation rate (%)
- Workers’ compensation insurance rate (%)
- Payroll tax rate (%)
Step 2.3: Enter Cost Centre information. For each Cost Centre:

- Name
- Short name (maximum 10 character name which will appear in subsequent worksheets)
- Unit of measure (UOM)
- Annual volume of UOM
9.3 People

The People worksheet gathers all payroll costs for all services and assumes fortnightly rostering. The worksheet caters to all categories of personnel expected, including:

Step 3.1: Enter identifying information. For each person:
- Position title
- Incumbent’s name or other identifier
- Cost type (direct or indirect)
- Employment type (full-time/part-time, casual or consultant)
- 1.0 FTE working hours per fortnight
- 1.0 FTE annual leave weeks per year
- Rostered working hours per fortnight
- Budgeted pay rate per hour ($)
- Proportion of annual leave taken (%)
- Annual leave loading rate (%)

List all employees or positions under ‘Position’. If several people work identical shifts for the same pay they may be grouped on one line (with the aggregate number of hours recorded under ‘Rostered working hours per fortnight’) however this will lock you into applying one set of backfill rules (see step 3.2) for everyone in the group, and may present you with difficulties in ascribing the cost.

Ensure that all likely new positions have been included having regard for new services or changes in client mix and intensity of support.

The cost type is important as it drives how the cost will be assigned to Cost Centres. It is expected that Direct positions will be ascribed to cost centres and that Indirect positions will not. While there is nothing in the Tool to prevent you from ascribing Indirect positions to Cost Centres (albeit the cell formatting – which turns to grey if Indirect is selected – is intended to warn you against it) the ascription will not be effective because all indirect people costs are taken to the Indirect OH worksheet for allocation.

For employment types casual and consultant the ‘Rostered working hours per fortnight’ should be calculated as annual budgeted hours divided by fortnights per year.

The proportion of annual leave taken (which can be any positive percentage value) impacts on the calculated wages expense. If less than the full annual leave entitlement is expected to be taken (ie, any positive value less than 100%) then wages expense will increase to reflect that wages are not being paid as a reduction in the provision for annual leave liability.
Step 3.2: For each position, enter the annual amount of allowances the person will be entitled to. To avoid complexity there are no separate calculations in the Tool for all the different possibilities (e.g., motor vehicle allowances, travel allowances, sleep over allowances, public holiday penalties) so you will need to prepare your own calculation and enter the result. Refer to your historical financial and payroll records to ascertain an average cost for these allowances.

Consider that you can choose to load regular allowances into the ‘budgeted rate per hour’.

Step 3.3: Nominate leave backfill options. For each position entitled to leave:
- % of annual leave backfilled
- % of sick leave backfilled

The Tool assumes that all hours of leave backfilled for a position will trigger the utilisation of replacement personnel at a cost of the ‘budgeted rate per hour’ x (1 + backfill_uplift_rate). This uplift factor acts as a catch-all for the alternatives to backfilling leave which come at a higher cost than the standard rate (i.e., agency personnel, overtime, casuals).

Step 3.4: Review the calculated ‘Total employment costs’ for each position. Do these total costs look reasonable compared to historical costs?

Step 3.5: Apply judgement to ascribe cost to Cost Centres by entering percentages in the ‘Ascription to Cost Centres %’ columns. Any costs not ascribed to a Cost Centre default to Indirect OH. Any over-ascription (i.e., ascription greater than 100%) will trigger an error indicator.

Remember, ascription is not necessary for positions with cost type ‘Indirect’ (refer to the explanation in step 3.1).
9.4 Real Estate / Property

The Property sheet gathers the costs of all owned, mortgaged and rented properties used for any purpose.

Step 4.1: List all buildings in the ‘Property description’ column. Using property addresses is suggested. If applicable also enter an identifier (e.g., a short name) for each property.

Step 4.2: Enter values for the annual cost of rent or notional rent, loan interest and depreciation in the relevant columns.

Step 4.3: Enter all other annual costs for each property in the remaining columns. The ‘Total annual costs’ column will display the sum of all values entered.

Step 4.4: Determine a basis for ascription of property costs to Cost Centres and enter a description of the unit of measure (e.g., floor space, FTE, revenue, %) in the column headed ‘Ascription basis unit description’.

Step 4.5: Enter the base (i.e., total) value being ascribed in the column headed ‘Ascription basis unit total no. units’.

Step 4.6: Apply judgement to ascribe cost to Cost Centres by entering values (in basis units) in the ‘Ascription to Cost Centres no. units’ columns. Any costs not ascribed to a Cost Centre default to Indirect OH. Any over-ascription (i.e., ascription greater than ‘Ascription basis unit total no. units’) will trigger an error indicator.
9.5 Vehicles

The Vehicles sheet gathers the costs of owned, leased and rented motor vehicles used for any purpose.

Step 5.1: Enter details of all motor vehicles in the ‘Vehicle description’ and ‘Identifier’ columns.

Step 5.2: Enter values for the annual cost of rent or notional rent, loan interest and depreciation in the relevant columns.

Step 5.3: Enter all other annual costs for each vehicle in the remaining columns. The ‘Total annual costs’ column will display the sum of all values entered.

Step 5.4: Apply judgement to ascribe cost to Cost Centres by entering percentages in the ‘Ascription to Cost Centres %’ columns. Any costs not ascribed to a Cost Centre default to Indirect OH. Any over-ascription (ie, ascription greater than 100%) will trigger an error indicator.
9.6 Direct Overheads

The ‘Direct OH’ work sheet gathers all costs (other than People, Property and Vehicles costs) that are incurred in specific Cost Centres.

Step 6.1: Enter details of all expense in the ‘Expense description’ and ‘Account code’ columns.

Step 6.2: Enter values for the annual cost of each expense.

Step 6.3 Apply judgement to assign cost to Cost Centres by entering percentages in the ‘Ascription to Cost Centres %’ columns. Any costs not allocated to a Cost Centre default to Indirect OH. Any over-ascription (i.e., ascription greater than 100%) will trigger an error indicator.
9.7 Indirect Overheads

The ‘Indirect OH’ worksheet gathers all indirect costs that cannot be ascribed to Cost Centres which are typically associated with executive management and administration support. Middle management costs can be included here, however some of those costs may be more appropriately entered as direct overheads.

Step 7.1: Check that values have pulled through from the other worksheets (People, Property, Vehicles, Direct OH). Note that two values pull through from the People worksheet – the un-ascribed proportion of Direct personnel cost, and the full amount of Indirect personnel cost.

Step 7.2: Determine a basis for allocation of indirect costs to Cost Centres and enter a description of the unit of measure (e.g., floor space, FTE, revenue, %) in the column headed ‘Allocation basis unit description’.

Step 7.3: Enter the base (i.e., total) value being allocated in the column headed ‘Allocation basis unit total no. units’.

Step 7.4: Apply judgement to allocate cost to Cost Centres by entering values (in the specified units) in the ‘Allocation to Cost Centres no. units’ columns. Any over- or under-allocation (ie, allocation greater or less than ‘Allocation base UOM’) will trigger an error indicator.

Step 7.5: Repeat steps 7.2 to 7.4 until the total Indirect OH available for allocation has been allocated.
9.8 Pricing

The ‘Pricing’ worksheet collects the cost data entered on the People, Property, Vehicles, Direct OH, and Indirect OH worksheets and calculates Unit Cost and Unit Price of services. As such, it provides focus to the ultimate objective of the Tool. For each Cost Centre:

Step 8.1: Note the calculated cost per UOM.

Step 8.2: Enter the desired base and risk mark-ups.

Step 8.3: Note the target price per UOM.

Step 8.4: If you wish to compare the calculated target price per UOM to a previous price then enter the previous price and note the change in $ and % terms. The result may prompt you to revisit the data you have entered for the Cost Centre and or revise your mark-ups.

Step 8.5: Review the profit and loss projection. This enables you to assess, at a glance, the profitability of the service after a price has been determined.

Step 8.6: Review the break-even analysis. The break-even point is where UOM volumes are sufficient to recover all costs but insufficient to generate a profit. The safety margin is the difference between budgeted UOM volume and break-even point volume and represents a buffer against a fall in UOM volume to a potentially loss-making level of activity.

Note that the ‘Pricing’ worksheet includes all Cost Centres, which may include activities like Commercial and Fundraising alongside disability services. The treatment of non-service Cost Centres is the same as for service Cost Centres – income generated (in this case, through means other than the sale of services) is matched against full and appropriate cost recovery. This provides transparency for funders seeking to ensure that cross-subsidisation of activities does not occur.
9.9 Client Calculator
The ‘Client Calculator’ worksheet enables individualised client quotes from a menu of available services.

Step 9.1: Enter the number of weekly Units of Measure required by the client in the column headed ‘UOMs per week’.

Step 9.2: Filter the worksheet for non-zero values and review the results.
9.10 Pricing Overview
The ‘Pricing Overview’ worksheet is for Administrator use only and provides a comprehensive overview by Cost Centre of target price calculations, break-even analysis and achievable price.

9.11 Cost Overview
The ‘Cost Overview’ worksheet is for Administrator use only and provides an overview of the total of costs loaded into the Tool. Any errors highlighted in this worksheet will indicate an ascription or allocation error in one or more of the preceding worksheets which must be found and rectified to restore integrity to the results.
Appendix A: Acknowledgements

Numerous people and disability organisations have assisted in the development of the NDS Costing and Pricing Tool and we acknowledge in particular the effort of the NDS WA Costing and Management Accounting Steering Group for their contribution. They considered various versions of the Tool and Manual and provided significant expertise at key stages without which the project would have been more difficult and finalised in a less timely fashion.

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