



Measuring the Costs of Regulation

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New South Wales Government

Department of Premier and Cabinet
Better Regulation Office

1. Introduction

The NSW Government released its Guide to Better Regulation in April 2008. It provides information about good regulatory practice to avoid the creation of red tape in new proposals and to reduce existing red tape as regulation is reviewed. The Guide assists government agencies to apply the seven better regulation principles, including understanding the impacts of a regulatory proposal. The Guide can be found on the Better Regulation Office's website at: www.betterregulation.nsw.gov.au.

This document accompanies the Guide by providing more detailed information on how to measure the costs of a regulatory proposal. It provides agencies with some tools to assist in determining whether a regulatory proposal will minimise costs and/or provide the greatest cost savings to the community.

The Better Regulation Office is available to provide agencies with assistance and advice. Agencies working on significant regulatory proposals should consider approaching the Better Regulation Office early in the development process.

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2. The Costs of Regulation

Understanding the costs and cost savings of a regulatory proposal assists decision makers to understand the likely impacts on different sectors of the community. The costs of regulation include: administrative costs; substantive compliance costs; financial costs; and indirect costs. These costs may be borne by businesses, individuals, the community more broadly or government.

The following diagram provides an overview of the different categories of regulatory costs and provides a brief explanation of each type of cost.

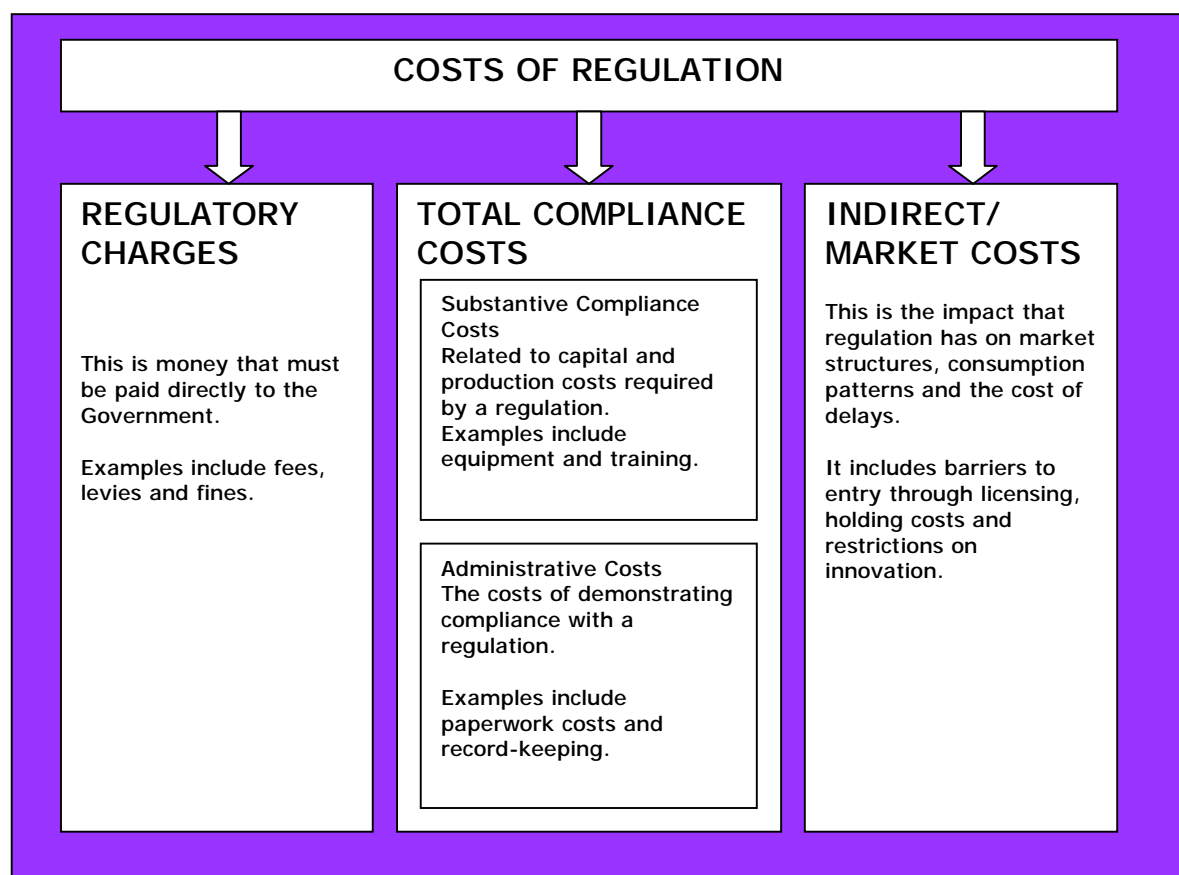


Diagram A: Regulatory Costs

3. Measuring the Costs of Regulation

Different types of regulatory costs may have different scope for measurement. For example, measuring the costs of the paperwork burden resulting from a particular regulation is easier than measuring the net cost of competition restrictions.

While providing detailed information on regulatory costs takes time and effort, such information assists decision-makers to better understand the full impacts of the regulation, assess whether the regulation is proportional, prioritise reforms, and identify where unnecessary and excessive compliance costs occur.

The most useful regulatory cost information for decision-makers is the incremental cost of a regulation to a business or stakeholder, rather than its total cost. In other words, decision makers need to know what difference the proposed regulation will make to compliance costs. There are two different ways to measure this incremental cost:

1. Estimate the total compliance costs before and after the regulatory change and compare the two to get an assessment of the incremental cost.
2. Directly estimate the incremental change in costs due to the regulatory change.

The best method to use may be different from case to case.

The Better Regulation Office recognises that in some cases, agencies will have to estimate the costs of a regulation that has not yet been implemented. Although measuring the costs of a proposed regulation will be more difficult than measuring the costs of a regulation already in place, it is nonetheless important to provide decision-makers with this information. Effective consultation and comparative analysis with similar cases in other jurisdictions may assist in these cost calculations.

An effective approach may be to directly ask stakeholders to estimate the likely compliance costs they may face. This will be less time consuming for government and result in more accurate costing information.

There are IT tools available to assist in calculating the compliance costs of a regulatory proposal. Although such IT tools may be useful for particular regulatory costs, agencies may also choose to use their own methods of estimating compliance costs. A summary of two cost calculation tools that may be useful for agencies is provided in Appendix A.

Other typical measurement suggestions for the different types of costs are provided below.

Administrative Costs

Administrative costs are also known as paperwork costs. They are incurred by business and the community sector when demonstrating compliance with a regulation and are incurred by government in administering the regulation.

Effective consultation should make the measurement of administrative costs relatively straight-forward since businesses, community groups and individuals can provide information on appropriate wage rates and the time it takes to perform the various tasks necessary to comply with the regulation. Examples include: time spent learning about administrative requirements, record keeping and reporting, inspection and enforcement of regulation.

Additionally, Government agencies should be able to estimate the wage rates and the time taken to administer and enforce the regulatory proposal.

Essentially, total administrative costs for a given regulation can be summed up with the following equation. Depending on the circumstances, it may be more useful to report costs in a different manner (for example, per business, per year, per process).

*Annual Administrative costs = Unit Cost X Quantity
(where Unit Cost = inputs x time and Quantity = population x frequency)*

Inputs = this is wages costs, overhead and non-wage costs or the cost of an external service provider (hourly).

Time = time required to complete the activity (in hours)

Population = the number of businesses affected

Frequency = the number of times the activity is completed each year

In the absence of more specific information, agencies may wish to use the following default hourly wage rates¹.

Economy-wide default rate for NSW	\$47/hr
By Occupation	
- Managers	\$66
- Professionals	\$56
- Technicians and trade workers	\$45
- Community and personal service workers	\$40
- Clerical and administrative workers	\$39
- Sales Workers	\$35
- Machinery operators and drivers	\$44
- Labourers	\$37

These rates are suitable for use in the 2008 calendar year. They will be updated as more current data becomes available. It should be noted that the above wage rates include overheads. Agencies should be careful not to double count these costs in their calculations.

Further details on the methodology for calculating default hourly rates can be found at Appendix B. Agencies should also endeavour to consult with businesses where possible to collect specific information regarding the hourly wage of the staff that undertake particular compliance activities.

Substantive Compliance Costs

Substantive compliance costs are largely related to the capital and production costs that are required by a regulation. These costs are often associated with regulations that specify the requirements for businesses or the community sector to buy new equipment, maintain equipment and undertake specific training in order to meet government regulations. This category would also include the costs of producing publications for third parties that are required by regulation.

Consultation with relevant stakeholders should also make this costing exercise reasonably straight-forward. For example, estimates of the amount of equipment

¹ these rates are derived by applying the NSW default hourly rate to the national occupational relativities using ABS Cat No. 6306.0 (see Appendix B for methodology and further information sources)

or costs of training can be sought directly from businesses. These costs may be one-off or ongoing costs. Total substantive compliance costs can be summed up with the following equation.

Substantive compliance costs = Unit Cost x Quantity
(where Quantity = population x frequency)

Unit Cost = this is the cost of training, equipment or other expenditure

Population = the number of businesses affected

Frequency = the amount of training or the number of equipment required

It is important to note that capital investments made due to regulation will often have a life of several years. A fixed annual cost equivalent to the total cost divided by expected life should be specified. As a rough guide, effective lives of most assets can be obtained from the Australian Taxation Office website (www.ato.gov.au). However, it is important to note that this may deviate from the economic life of an asset.

Regulatory Charges

This is the easiest type of cost to calculate as it concerns the fees to be set for licences and permits and other direct financial transfers to Government. These are known to Government and agencies are likely to have access to data to provide reasonably reliable estimates of the number of individuals, businesses or community groups that would be liable for the charge. Total annual regulatory charges can be estimated with the following equation.

Annual Regulatory Charges = Unit Cost x Quantity
(where Quantity = population x frequency)

Unit Cost = this is the cost of the fee/licence/permit

Population = the number of businesses affected

Frequency = the number of times that the fee for the licence or permit is required to be paid per year

Indirect/Market Costs and Economic Impacts

Indirect costs and economic impacts relate to the costs that result from a regulation that affects market structures or consumption patterns. Such regulations can create barriers to entry, limit competition, and impose opportunity costs. As a result of these entry restrictions, there can be substantial regulatory costs associated with barriers to innovation, decreased choice and quality for consumers, and higher prices.

Indirect costs, economic impacts, and opportunity costs are the most difficult to estimate. However, some indirect costs such as the costs of delays can be calculated, and for those intangible aspects of the regulation that cannot be quantitatively costed, a qualitative discussion can be useful. For example, a qualitative discussion of a competition restriction such as a barrier to entry that

can allow existing market participants to charge higher fees and hold back innovation would assist decision makers.

Appendix C: Assessment of Costs and Benefits in the Guide to Better Regulation describes some methods for assessing the costs and benefits of intangibles and performing qualitative analysis of impacts.

Measuring the costs of delays

Regulatory delays can impose significant costs to businesses through lost revenue and other costs. An example of this regulatory cost would be the capital holding costs incurred by a business associated with delays in approval processes. If an application for a permit takes unnecessary time to approve, there is a holding cost on the amount of money already invested in the project. As a general guide, the following formula may be helpful in calculating the annual value of holding costs:

Indirect Costs = Unit Cost x Quantity

Unit Cost = annual capital value of approvals x estimate of percentage borrowed/spent x annual interest rate/365

Quantity = average delay (in days) to process or gain approvals

Agencies should endeavour to decide the most appropriate interest rate to apply in each case. However, a useful guide for borrowing rates is the “Reserve Bank weighted-average interest rate on credit outstanding for small businesses” and the “Reserve Bank weighted-average interest rate on credit outstanding for large businesses” <www.rba.gov.au>.

4. Applying a Robust Methodology to Cost Calculations

Applying a robust methodology is essential to providing the best possible regulatory cost information for decision-makers. Characteristics of a robust methodology include:

Consultation - Consultation about costs with relevant stakeholders should be conducted. Where possible, a variety of sources of information should be used to ensure the costs are representative. It may be helpful for agencies to ask stakeholders for approximate costs to be included in any responses to consultation exercises.

Proportionality - The effort and resources used to measure the costs of regulation should be proportional and will vary according to the expected impact and scope of the regulation. In some cases, agencies may simply use in-house estimates, and in other cases, extensive business consultation through surveys or interviews may be more appropriate.

Clearly State All Assumptions - The assumptions made in the calculations should be clearly stated. The basis for each assumption should also be explained.

Consistent Application of Methodology - The methodology should be applied consistently across all options assessed and across regulatory proposals to allow ready comparison.

Avoid Double Counting - Care should be taken not to double count the costs of regulation. There is a need to clarify whether the cost is attributable solely to the regulation in question, to multiple regulations or due to business choices.

Retain All Documentation - Documentation and evidence should be retained for future reference.

5. Presenting the Results

Although the above information deals mostly with presenting the sum of all marginal cost impacts, in some cases it may be more effective to present cost information in a different manner to demonstrate to decision makers which groups or businesses bear the greatest cost from the regulatory proposal. Some suggestions of the ways of presenting data to complement total compliance costs information is provided below:

Size - To demonstrate differential impacts based on size, it would be useful to provide an analysis of the costs to small and large businesses and community groups and to include estimates of the number of small business/groups and large businesses/groups that would be affected.

Location – Similarly, differential impacts based on location should also be presented. For example, the difference in costs to rural and urban businesses or community groups may be useful for decision-makers. Again, an estimate of the number rural and urban businesses/organisations that would be affected should be included.

Impact per business - For some regulatory proposals, the total compliance costs may not be high but the costs per business could be high. In such cases, it would be important to highlight the costs per business.

Impacts on Government - Regulations that require high levels of government administration or enforcement should separately identify impacts on government as well as the total regulatory costs.

Timing of the costs - Decision-makers may find it useful to understand whether the costs of a proposal are to be incurred largely as start-up costs or whether they will be on-going costs, and for how long. Agencies should consider the need to discount future costs to provide a more accurate or comparable assessment of impacts.

The Better Regulation Office can provide more detailed guidance on estimating and reporting regulatory costs if required.

APPENDIX A: TOOLS TO ASSIST WITH CALCULATING COMPLIANCE COSTS

There are several tools that can be used by agencies to calculate compliance costs. Selecting which tool is most appropriate for the task is for each agency to decide. Two tools used in Australia are the Business Cost Calculator (BCC) and the Standard Cost Model (SCM). The BCC includes both administrative and other compliance costs whereas the SCM considers only administrative costs.

The BCC provides a reasonably comprehensive measure of the costs of a regulation for businesses and provides useful prompts to assist your agency to think about all the different types of activities that may impose costs on businesses. The limitation of the BCC is that it does not account for the costs of regulation for government or the community. Therefore, these costs will need to be calculated separately.

Where administrative costs are likely to form a large part of the regulatory costs, the SCM can be used. The advantage of the SCM is that it uses a high degree of detail in the measurement of administrative costs. However, your agency will also have to separately calculate any financial costs and substantive compliance costs.

It may be possible to use the SCM to calculate the administrative costs and the BCC to calculate other costs to business. However, it is important to ensure that there is no double counting of regulatory costs.

Commonwealth Office of Best Practice Regulation Business Cost Calculator

The Business Cost Calculator provides a framework covering nine types of compliance activities to assist agencies to consider the range of different costs that a regulation may impose on businesses.

The Office of Best Practice Regulation website provides information on how to use this IT-based costing tool and some background on the types of compliance activities to consider. Agencies can download the BCC from the Office of Best Practice Regulation website (<http://bcc.obpr.gov.au/>). Once the tool is downloaded and saved into a secure drive, the information entered and saved in the BCC tool will remain confidential and cannot be accessed by the Commonwealth. If your agency has any difficulties in downloading the program, the Office of Best Practice Regulation can send the software in CD format.

The BCC will prompt agencies to provide a description of the problem and the potential policy options for addressing the problem. Those options that are likely to have some compliance costs are then selected and the Calculator assists in quantifying those costs.

Some of the details required in the BCC include:

- the number of businesses affected by each option
- the tasks that business will have to complete to be compliant with the regulation
- whether the task is an internal cost or outsourced cost
- whether the task is a start-up or ongoing cost
- how long each task takes to complete
- how often each task will need to be undertaken
- the associated labour and other costs

- supporting evidence for all the information

This BCC uses an activity-based costing method to provide a consistent measurement of compliance cost. It allows you to analyse the compliance cost according to various compliance tasks, and identify tasks creating the greatest compliance burden.

Victorian Standard Cost Model

To understand the various administrative cost components of any given regulation, some agencies may find it useful to use the structure of the Standard Cost Model. The Model is used to provide an estimate of the administrative costs of a regulation and identify the drivers of these costs.

The Standard Cost Model “map” is based on identifying the various information obligations a regulation requires and then considers the data requirements and associated administrative activities for each information obligation. An example of this is provided below.

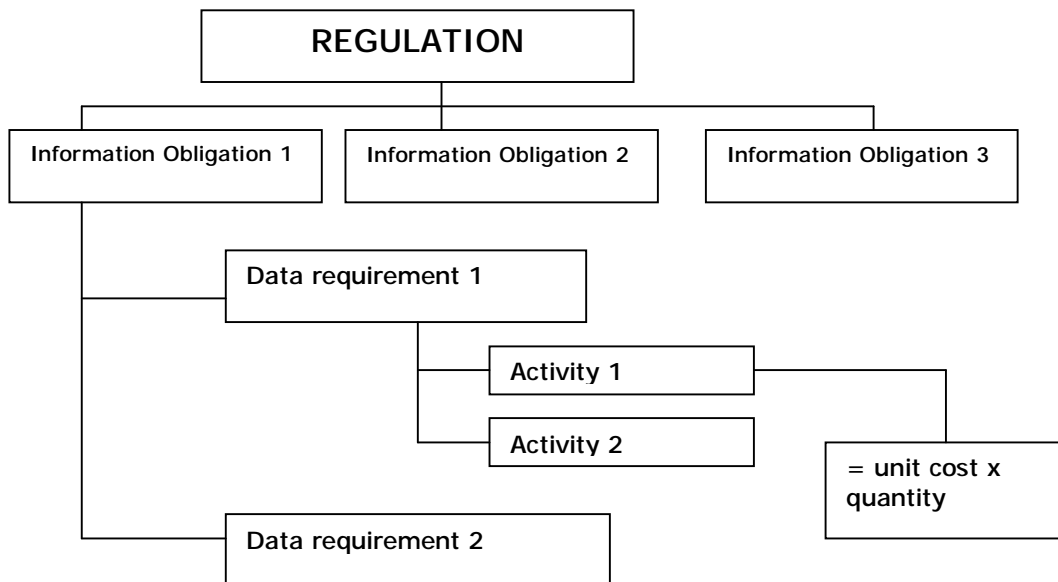


Diagram B: Standard Cost Model Map

For further information on the Standard Cost Model and to gain access to a SCM spreadsheet template that agencies could use to calculate the change in the administrative burden as a result of a regulatory proposal, see:

<http://www.vcec.vic.gov.au>

APPENDIX B: METHODOLOGY FOR DERIVING DEFAULT HOURLY LABOUR RATES²

This methodology calculates the hourly labour rate for use in the various costing models by dividing the estimated annual cost of employing labour (including wages and on costs) by the estimated hours worked per year.

Formula

$$HR = AE / (AW \times AH) \times ON \times OH$$

HR = hourly rate

AE = average annual earnings

AW = number of weeks worked per annum

AH = average weekly working hours for full-time adult workers

ON = on-cost multiplier

OH = overhead multiplier

Earnings

If data on earnings for the relevant industry or employment type is available from a source such as industry salary surveys, ABS earnings data, or from consultation with businesses this information should be used.

In the absence of detailed earnings information, the latest data from ABS Catalogue No. 6302.0³, *Average Weekly Earnings Australia* can be used as a default measure. The latest estimate of *Average Weekly Earnings* for November 2007 (New South Wales, persons, full time, adult, ordinary time earnings, trend series) was \$1146.30; so *average annual earnings (AE)* equals \$59607.60.⁴

Weeks Worked

The number of weeks worked per annum can be calculated by removing annual leave, public holidays and other leave entitlements from the number of weeks in a calendar year.

The ABS release, *Labour Price Index: Concepts, Sources and Methods 2004*⁵, notes that the legislated minimum paid annual leave entitlement is 4 weeks. In addition to this, there are approximately 2 weeks of statutory public holidays each year. As there are no accurate estimates of sick leave each year, an assumption of 1 week of leave has been used here. Other types of paid leave are difficult to average out because they are not applicable to every employee, and so are excluded.

The *average number of weeks worked per annum* is therefore assumed to be 45 weeks.

Hours worked

If information is available on the hours worked within a certain sector, this information should be used. In the absence of this type of information, The ABS publication, *Australian Social Trends 2006*⁶ data on the average weekly hourly

² This section uses methodology developed by the South Australian Office of the Economic Development Board (August 2007)

³ ABS Cat. No. 6302.0 "Average Weekly Earnings" trend series.

⁴ Using average annual earnings (NSW, persons, full time, adult, ordinary time earnings) assumes that the ratio of male: female employees in the average entity is identical to that in the wider economy. Given differences in male and female earnings, if an entity/industry had a significantly different ratio of male: female employee this assumption may under or over state the wage cost for that entity/industry.

⁵ ABS Cat. No. 6351.0.55.001

⁶ ABS Cat. No. 4102.0 "Trends in Hours Worked"

worked for fulltime workers in 2005 can be used. This survey calculated that the average weekly hours worked for full time workers in 2005 was 41.9 hours.

On-costs

Non-earnings labour costs paid by employers should also be added. Examples include employer superannuation contributions, payroll tax, worker's compensation premiums and fringe-benefit tax. Internal accounting systems may be a useful source for this information.

Using data in the ABS *Labour Costs 2002-03*⁷, superannuation, payroll tax, workers compensation and fringe benefit tax costs in New South Wales in 2002-03 were 16.12% of earnings. Projecting forwards to 2007-08 (based on average annual growth of on-costs and earnings from 1993-94 to 2002-03⁸), these on-costs were equal to 17.8% of earnings in New South Wales. The assumption used for *on-cost multiplier* is therefore 1.178.

Overhead costs

Overhead costs include items such as building costs (floor space, rentals etc), telephone costs, electricity, IT equipment and support, and administrative support. Agencies may be able to calculate an approximate overhead percentage to apply to hourly rates based on information from relevant businesses.

In countries such as Denmark, Norway, Sweden and the Netherlands, an overhead percentage of 25% has been used in their Standard Cost Model calculations⁹. Given the lack of other appropriate estimates on overhead costs as a percentage of wages, this percentage could be used by agencies. A different overhead percentage may be used where an agency can demonstrate that it is appropriate to do so.

Example

Using the November 2006 ABS data from *Average Weekly Earnings*, the hourly labour rate for a given activity is therefore:

$$\begin{aligned} \text{HR} &= \text{AE} / (\text{AW} \times \text{AH}) \times \text{ON} \times \text{OH} \\ &= \$59,607.6 / (45 \times 41) \times 1.178 \times 1.25 \\ &= \$32.31 \times 1.178 \times 1.25 \\ &= \$47.58 \end{aligned}$$

Where:

AE = average annual earnings (persons, full-time, adult, ordinary time earnings)
= \$1146.30 x 52 weeks
= \$59,607.60

AW = number of weeks worked per annum = 45

AH = average weekly hours for full-time workers = 41

ON = on-cost multiplier = 1.178

OH = overhead multiplier = 1.25

⁷ The most recent published data with on-costs broken down by state/territory. ABS Cat. No. 6348.0.55.001

⁸ This calculation uses data from the reference periods 1993-94 and 2002-03 and takes into account the effects of compounding in calculating the average annual growth of on-costs and earnings.

⁹ SCM Network, International Standard Cost Model Manual www.oecd.org/dataoecd/32/54/34227698.pdf pp.19