

Australian Domestic & Family Violence



**CLEARINGHOUSE**

## Literature Review

# Economic costs of domestic violence

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**Partnerships Against  
Domestic Violence**



THE UNIVERSITY OF  
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# Executive summary

## > Introduction

Since the late 1980s, the domestic violence literature reflects an increasing interest in augmenting social, psychological and criminological perspectives with an economic perspective as a way of gathering government and community support for efforts to prevent and overcome the effects of domestic violence. There is also growing awareness of the need to ensure that limited resources are targeted most effectively.

The aim of this literature review is to provide a comprehensive account of all Australian and selected international literature pertinent to assessing the economic costs of domestic violence. No attempt is made to calculate the economic costs of domestic violence. Rather, the review describes the literature pertinent to the topic; identifies similarities and differences between methodologies used; highlights strengths and limitations of various approaches; and outlines directions for future research.

In scoping this literature review, it was decided to include studies attempting to estimate the economic costs of other, related social problems, such as child abuse and neglect. This decision was taken because of the relatively small Australian literature on the costs of domestic violence; because of the extensive literature which documents the overlap of child abuse and domestic violence; and because the similarity in the nature of the problems – such as invisibility in much of the official data and high intangible costs — raises similar methodological challenges.

## > Definitions

In the literature reviewed, the terms *direct* or *tangible* are commonly used interchangeably to refer to the ‘costs associated with the provision of a range of facilities, resources and services to a woman as a result of her being subject to domestic violence,’ (KPMG Management Consulting, 1994, p. 22). Examples are the costs of crisis services, accommodation services, legal services, income support and health/medical services. Most studies find that the bulk of direct costs are borne by governments.

The terms *indirect* and *intangible* costs are also used interchangeably and refer to the pain, fear and suffering incurred by women and children who live with domestic violence, sometimes termed the indirect social and psychological costs of domestic violence (Laurence & Spalter-Roth, 1996). These also impact on the wider community, as this definition highlights:

*...the decrease in quality of life experienced by women, communities, and society as a result of domestic violence and the increase in restraints on battered women’s human potential and activities resulting from the violence. (Zuckerman & Friedman, 1998)*

In several of the Australian studies, *indirect* costs also include ‘the flow-on costs that are incurred when a woman leaves a violent relationship.’ (KPMG Management Consulting, 1994, p. 22). Examples are replacing damaged or lost household items, replacing school uniforms and equipment when children change schools and settlement of a partner’s outstanding debts (KPMG Management Consulting, 1994, 1996). Income lost or forgone because of the impact of violence on women’s workforce participation is another type of indirect cost included in all Australian studies. Most studies find that women bear the bulk of the indirect costs of domestic violence.

*Opportunity costs* are ‘the costs of opportunities which the participant has lost as a result of being in or leaving the violent relationship. An opportunity cost is the cost of the opportunity forgone when the woman’s options are limited by the circumstances in which she finds herself.’ (KPMG Management Consulting, 1994, p. 23) Examples would be loss of employment promotion opportunities and quality of life. Opportunity costs are often included as part of indirect costs.



## > Australian studies

Australia was one of the first countries to attempt to calculate the economic costs of domestic violence. The five Australian state/territory-based studies undertaken from the late 1980s to the mid 1990s are frequently cited in the developing body of international literature on the economic costs of domestic violence. The first Australian study was conducted in Queensland in 1988, commissioned by the Queensland Domestic Violence Taskforce (Roberts, 1988). It sought to measure the economic costs of services provided for female victims of domestic violence (direct costs), and the costs of productivity foregone by the victims (indirect costs). Roberts interviewed twenty women who had experienced domestic violence about services used by themselves and their children as a result of experiencing domestic violence from the time when they first sought help. Total *direct* costs for the sample of 20 women were over \$1 million dollars, with an average cost of services for a victim per case of just over \$51,000 dollars. The services which incurred the highest costs were health services (for adults and children) and social security. Total *indirect* costs (lost productivity) for the sample amounted to \$113,697. Projected for the Queensland female population using a prevalence rate for severe domestic violence of 3%, total annual costs of domestic violence in Queensland were estimated at over \$108 million (Roberts, 1988, p. 466).

This “retrospective case study approach” was subsequently employed in three other studies: Queensland (Blumel, Gibb, Innis, Justo, & Wilson, 1993); Tasmania (KPMG Management Consulting, 1994); and the Northern Territory (KPMG Management Consulting, 1996). These studies employed the methodology of interviewing a sample of women affected by domestic violence about the services used, calculating the costs involved for the sample, and extrapolating from this to arrive at an annual cost of domestic violence to the state/territory. This is not a methodology commonly employed in the international studies reviewed. Different annual prevalence rates of domestic violence – ranging from 1.8% to 4.5% – were used in the Australian studies, most of which were completed prior to the availability of national incidence and prevalence data from the Women’s Safety Survey (Australian Bureau of Statistics, 1996).

The second Queensland study (Blumel et al., 1993) also used a prevalence rate of 3%, estimating the total annual costs of domestic violence at over \$556 million. Both direct and opportunity costs were calculated, with opportunity costs referring to women’s lost wages due to absenteeism from work.

The Tasmanian (KPMG Management Consulting, 1994) and Northern Territory studies (KPMG Management Consulting, 1996) were conducted by the same consultancy firm, and used similar methodologies. In Tasmania and the Northern Territory, a sample of women was selected to represent a broad range of the population subject to domestic violence, taking into account demographic, geographic and service use characteristics. Data collected through in-depth interviews examined the nature and type of violence; factors hindering and assisting participants to seek help sooner; the ongoing impacts of the violence on women and children’s emotional and psychological well being; the range, duration and frequency of services used; pathways women took in accessing services; impact on employment; and lost opportunities attributable to living in a violent domestic relationship.

The *total direct and indirect* costs of domestic violence for the Tasmanian sample of 40 women were estimated at nearly \$4 million. The average *direct* cost per “case year”<sup>1</sup> was \$9,458. By extrapolating this figure across the Tasmanian female population using 1991 Tasmanian census data and an annual prevalence rate of 1.8%, total *direct* costs of domestic violence were estimated at \$17.671 million annually. Total *indirect* costs for the sample came to \$886,609 with the largest proportion comprising costs associated with replacement of lost and damaged property. However, these *indirect* costs were not extrapolated across the wider Tasmanian population (KPMG Management Consulting, 1994).

In the Northern Territory study, the total *direct* costs of domestic violence for the sample of 32 women were calculated at approximately \$2.7 million. The average direct cost per case year was \$11,812. Extrapolated across the Territory, using the Women’s Safety Survey’s incidence rate of 2.6 per cent (Australian Bureau of Statistics, 1996), it was estimated that the direct cost of domestic violence to the Northern Territory each year is \$8.86 million (in 1996 dollars). *Indirect* costs were estimated at over \$1.2 million for the sample, with an average of \$38,563 per case. The consultants did not extrapolate indirect costs from the sample to arrive at an annual figure for the Territory.



The largest cost element for all violent crimes is lost quality of life and related fear, pain and suffering.

In both the Tasmanian and Northern Territory studies, the provision of income support comprised the greatest proportion of direct costs, followed by accommodation costs. The Government/community sector bore the greatest share of direct costs, while women bore the greatest proportion of indirect costs.

Only the NSW study (Distaff Associates, 1991) and a recent Australian study on the costs of domestic violence to the business/corporate sector (Henderson, 2000a) did not base their study on a sample of women, but made cost estimates on the available government and service agency data. The NSW study is often cited in the international literature because it was the first to attempt to include in its estimates of costs, women who have not disclosed

domestic violence. Its division of the victims/survivors of domestic violence into three groups based on the stages of 'non-disclosure', 'acknowledgment and help seeking', and 'building an alternative life' was subsequently used in the development of the methodology of the New Zealand study (Snively 1995) which is included in this review. Total costs of domestic violence in NSW were estimated at \$1.5 billion on an annual basis, based on 1990 data (Distaff Associates, 1991). The study found that it is women who bear the greatest share of the economic costs of domestic violence. The share of costs borne by government was found to be approximately half that borne by women. The federal government was found to carry the largest proportion of government costs through expenditure on income support, housing and medical costs. State government costs were primarily incurred through the provision of court and legal services, child welfare and family support programs.

Despite the inadequacy of much of the necessary data, the Australian studies were more successful in calculating the *direct* costs of domestic violence, than in calculating the *indirect* costs. While a monetary value was calculated for some indirect costs incurred by the sample of women (e.g. replacement of household goods), several studies were unable to accurately extrapolate this across the state population because of the risk of underestimating the costs. However, the largest component of indirect costs is the pain and suffering experienced by the victims/survivors of domestic violence. Estimating this type of cost is a challenge for all work in this field, both nationally and internationally.

*The largest cost element for all violent crimes is lost quality of life and related fear, pain and suffering. It may also be the cost item with the highest degree of uncertainty.* (Miller, Cohen, & Wiersema, 1996, p. 21)

No Australian study attempted to quantify these costs, though most studies included qualitative data from interviews with women about the debilitating and terrifying impacts of domestic violence on their lives and the lives of their children. This is consistent with the approach taken to documenting indirect costs in some of the international literature (e.g. Kerr & McLean, 1996; Stanko, Crisp, Hale, & Lucraft, 1998). The costs of lost *opportunities* due to domestic violence were sometimes included as part of indirect costings, and sometimes as a separate category of costs. As with pain and suffering, however, it was contended that these opportunity costs could not be quantified, and qualitative data was provided (KPMG Management Consulting, 1996).

Most Australian studies included in their calculations, the economic impact of domestic violence on women's participation in the workforce, for example through days lost from work due to the violence and being unable to maintain or gain employment. The most recent Australian study, which was commissioned by the Lord Mayor's Women's Advisory Committee, Brisbane City Council (Henderson, 2000a) reviews and synthesises the qualitative and quantitative costs associated with employment identified in earlier Australian studies and attempts to comprehensively estimate the annual cost of domestic violence to Australian employers. Henderson identified and costed (where possible) the impacts of domestic violence in four areas: direct costs to employers from absenteeism, staff turnover and lost productivity; indirect costs, defined as employer tax share of public sector costs in the provision of services to victims and perpetrators of domestic violence; direct and opportunity costs to victims, perpetrators, family and friends; and the shared impact of domestic violence on the wider community, including inter-generational costs.

Henderson points out that the direct costs to employers are not only end costs in themselves, but affect other aspects of an organisation, such as distribution and production, which can result in



late deliveries, bringing about customer dissatisfaction and lost business. Similarly, costs to women, such as the inability to work caused by domestic violence, have a 'domino-effect' on other sectors of the society: income forgone by victims results in diminished profits for business and decreased tax revenue to government.

The annual cost of domestic violence to the business/corporate sector was estimated at \$1.5 billion with an approximate cost of an individual case of domestic violence being estimated at almost \$10,000. This is the sole Australian study to focus on one sector rather than estimating costs across all sectors affected by domestic violence. Among the international literature reviewed, a similar approach was undertaken in the US with respect to the health sector (Rudman & Davey, 2000).

While all Australian studies included some of the costs to children affected by domestic violence, none explicitly tackled the impact on costings of recent findings regarding the intersection of child abuse and domestic violence. For example, it is argued by some in the child protection literature that all children exposed to domestic violence should be regarded as experiencing emotional/psychological child abuse (e.g. Somer & Braunstein, 1999). Adopting this broad definition of child abuse in the context of domestic violence would have immense implications for costings of the impact of domestic violence. Even if this most extreme position were not adopted, research indicates that domestic violence and child abuse co-occur in 30-60 per cent of cases (Edleson, 1999). Hence calculations of the costs of domestic violence that include costs of child abuse in 30-60 per cent of cases, and which attempt to include costs of pain and suffering and long-term effects on life opportunities, would be significantly higher than estimates to date.

All of the Australian domestic violence studies can be described as 'aggregate' studies (Laurence & Spalter-Roth, 1996), which attempt to calculate a total cost for domestic violence. US researchers Laurence and Spalter-Roth (1996) define this task in the following way:

*In order to model the direct costs of domestic violence, we need to know how many people are affected, how many are using services as a result of domestic violence, how much of those services they are using, and the costs of these services.* (Laurence & Spalter-Roth, 1996, p. 14)

As many authors in the literature point out, however, this is not as straight forward as it sounds, as much of the essential data is not available.

## > International Studies

The literature search identified publications on the economic costs of domestic violence from Switzerland, the United States of America, Canada, the United Kingdom, Chile, Nicaragua and New Zealand. A number of other studies that discuss domestic violence as one aspect of their research into economic costs of violence were also included in the review

The New Zealand study (Snively, 1995), as noted, took the NSW three stage model as a starting point, expanding on this model by analysing a range of scenarios over a range of prevalence rates. This study is often mentioned in the international literature as an example of how to cost upper and lower estimates of the economic cost of domestic violence. It concludes that, even on the most conservative estimate:

*The results of the analysis indicate that the annual cost of family violence in New Zealand is at least NZ\$1.2 billion. This is more than the NZ\$1 billion earned from wool exports in 1993/1994, nearly as much as the total amount of NZ\$1.4 billion spent on unemployment benefit and around half of the NZ\$2.5 billion earned from forestry exports.* (Snively, 1995, p. 98)

A UK study (Stanko et al., 1998) focussed on one local government area of London and built its methodology on earlier research about women's patterns of help seeking. The study calculated *selected costs* to the public sector for domestic violence in Hackney to be over £5 million for the year 1996. The largest component of these costs, are those incurred by social services (£2.3 million) and civil justice (£1 million).

Using an incidence rate of 11.3 per cent, Yodanis and Godenzi (1999b) found that domestic violence costs the Swiss government 400 million Swiss francs, or US\$290 million each year, in a study of



direct or tangible costs. The most expensive categories of costs were (in descending order) police, physicians, courts and public assistance. The categories of victim assistance, shelters and research attracted the lowest costs.

The Centre for Research on Violence Against Women and Children in Ontario, Canada, has conducted a number of studies on economic costs of domestic violence. One study estimated that a total of more than C\$1.5 billion is spent on the health related costs of domestic violence every year (Day, 1995 cited in National Crime Prevention Centre, 1996).

In another Canadian study, Kerr and McLean (1996) estimated the economic costs of domestic violence in the province of British Columbia. The costs included a range of indirect/tangible costs and the intangible/indirect cost of time lost from work. Estimated costs of policing, corrections, criminal injury compensation, victim assistance programs, counselling for women, aboriginal programs, mental and drug related care, income assistance, sexual and women assault centres, women's loss of work time, programs for children who witness violence and treatment programs for assaultive men, came to C\$385 million. Income assistance comprised the largest component of these costs while the second largest component was women's loss of work time at C\$54 million. The authors stress that these estimates understate the real economic costs of domestic violence. For example, these estimates do not include pre-natal damage due to abuse of women during pregnancy or the long-term consequences of intergenerational transfers of violent behaviours.

## > Estimating the intangible/indirect costs of domestic violence

The international literature reviewed for this project, together with some of the Australian literature in allied fields, brought to the review examples of methodologies being employed to try to place a monetary cost on the intangible/indirect costs of domestic violence (e.g. Donato & Shanahan, 2001; McGurk & Hazel, 1998; Miller et al., 1996). In a major US study, Miller, Cohen and Wiersema (1996, p. 9) tackle the thorny issue of attaching monetary value to 'nonmonetary losses – such as fear, pain, suffering and lost quality of life.' This stands in sharp contrast to other reviewed studies, including the Australian domestic violence studies, which have not attempted to quantify these intangible costs, and which have, in the main, attempted to include them through the use of qualitative data. Miller, Cohen and Wiersema argue that failing to include these *intangible (indirect)* victim costs of pain, suffering and lost quality of life leads to gross underestimates of the costs of personal crime. For crimes of violence, they argue, 'intangible pain, suffering and lost quality of life exceed all other tangible categories combined.' [Miller, 1996 #38; p. 15] However, the methods used in quantifying these intangible costs are controversial (Cohen, 2000).

Other authors in the international literature (e.g. Stanko et al., 1998; Kerr & McLean, 1996) do not attempt to monetise the intangible/indirect costs of domestic violence, and in fact argue against such attempts. For example:

*...in no way can we "cost" the horrifying physical and psychological damage of this violence to the women and their children.* (Kerr & McLean, 1996, p. 3)

## > Cost effectiveness and benefit cost analyses

The potential of cost-effectiveness and benefit-cost analyses (Chisholm, 2000) was also highlighted in the literature. Cost-effectiveness analysis and cost-benefit analysis are 'the most widely used techniques of economic analysis'. (Welsh, 2000, p. 3) Laurence and Spalter-Roth define cost-effectiveness studies in the following way:

*Cost-effectiveness studies are designed to demonstrate the relationship between project costs and outcomes, usually expressed as costs per unit of outcome achieved.* (1996, p. 31)

Cost effectiveness studies enable a comparison of the cost-effectiveness of two or more programs





seeking to obtain the same outcome. (Hornick, Paetsch, & Bertrand, 2000)

No Australian domestic violence study attempted a *cost effectiveness* or a *benefit-cost* analysis. The literature search identified one study in the international literature (Snow Jones, 2000) which aimed to put in place one of the building blocks towards the implementation of cost-effectiveness analyses of domestic violence perpetrator treatment programs. The author's cost analysis of four geographically and programmatically diverse batterer programs, employing 'an economist's view in measuring the opportunity costs of batterer intervention programs, rather than simply tabulating program accounting costs', is, she argues, 'an essential component of cost-effectiveness analysis' (p. 566).

The analysis found that the social benefits of providing shelter services greatly outweighed the costs.

Benefit-cost analyses are more difficult to conduct than cost-effectiveness studies as they require researchers to place a monetary value on *all costs and benefits*.

*Once both inputs and outcomes are expressed in monetary terms, then benefit / cost ratios can be calculated where the value of outcomes is divided by input costs, or the net benefit can be calculated by subtracting the sum of the input costs from the sum of the benefit costs...* (Hornick et al., 2000, p. 9)

Thus, a benefit-cost analysis takes a cost effectiveness analysis one step further:

*The obvious advantage of cost benefit analysis over cost effectiveness analysis is that it permits the comparison of the cost / benefit of interventions which might have very different outcomes and target groups because the outcomes are expressed in common terms, i.e., money.* (Hornick et al., 2000, p. 9)

However, benefit-cost analyses need to be based on rigorous program evaluations:

*In practical terms, an economic analysis of the efficiency of a program is an extension of an outcome evaluation, and is only as defensible as the evaluation upon which it is based.* (Welsh, 2000, p. 4):

This raises difficulties for conducting benefit-cost analyses of perpetrator treatment programs, for example, because empirical evidence of their effectiveness is not yet available (Keys Young, 1999). Further, benefit-cost analyses may need to monetise the costs of pain and suffering (Miller et al., 1996), one of the biggest challenges identified in the literature.

One benefit-cost analysis of a domestic violence intervention was identified in the international literature: a social cost-benefit study of domestic violence shelter services in Kingman, Arizona (Chanley & Chanley, 1999; Chanley, Chanley, & Campbell, 2001). The analysis found that the social benefits of providing shelter services greatly outweighed the costs. Even using the lower estimate of social benefits and the upper estimate of costs, it found that there was a net social benefit of almost \$3.5 million dollars. The authors also computed the cost-benefit ratio for the shelter program: this ranged from 6:8 to 18:4, depending on whether the upper or lower cost estimates are used. 'This means that for every \$1 invested in the shelter program, between \$6.80 and \$18.40 of social value is returned.' (p. 405) Chanley and Chanley conclude:

*We hope that our results will assist domestic violence policy advocates and decision makers in understanding the significant value of even small domestic violence shelters, even if shelters are used only as places of temporary refuge by battered women and their children.* (Chanley et al., 2001, p. 411)

Clark, Biddle and Martin (2002) have recently undertaken a cost-benefit analysis of the 1994 United States Violence Against Women Act (VAWA-I), a major federal legislative initiative. For the purpose of the study, VAWA-I was treated as a single broad policy. The cost-benefit of individual programs funded under the legislation was not analysed. On the basis of their analysis, the authors conclude:

*The net benefit of VAWA-I is estimated to be \$16.4 billion. Because the cost of VAWA-I is only \$1.6 billion, \$14.8 billion in averted victimization costs would be saved after implementation of VAWA-I.* (Clark et al., 2002, p. 423)



The review identified one Australian benefit-cost analysis of in-prison cognitive behavioural treatment programs for child sexual assault offenders (Shanahan & Donato, 2001). This study is valuable because it tackles several difficult issues which would need to be addressed if a similar methodology were employed, for example, to ascertain the costs and benefits of domestic violence perpetrator treatment programs.

While benefit-cost analyses may appear very attractive to policy makers and program funders, with their promise of demonstrating which program provides most benefit for the money invested, all authors in this review urged that enthusiasm be tempered with caution:

*Like any statistical tool, benefit-cost analysis is vulnerable to misapplication through carelessness, inexperience, or deception. The technique is sometimes criticised because it presents an aura of precision and objectivity that might not be justified. The results can be no more precise than the assumptions and evaluations that are employed.* (Cohen, 2000, p. 303)

## > Domestic violence costs and child abuse

The review identified a study which highlights the complex interplay of domestic violence and child abuse and neglect, highlighting the challenges this raises for studying economic costs. The rigorously evaluated Elmira (New York) Prenatal/Early Infancy Project of David Olds and associates (cited in Welsh, 2000) has been found to reduce child abuse notifications in the randomly assigned 'treatment' group. Several cost-benefit analyses have found that benefits outweigh costs for 'high risk' mothers. However, a recent evaluation of the program found that the presence of domestic violence had a negative impact on the ability of home-visitation schemes to achieve their targeted outcomes. '... the treatment effect decreased as the level of domestic violence increased.' (Eckenrode et al., 2000, p. 1385).

## > Recommendations in the literature

The literature reviewed for this project provides a range of approaches to estimating the economic costs of domestic violence. There is consistent call for improved:

- > Data collection – both to better estimate the prevalence of domestic violence and to better identify service usage and costs by victims and perpetrators of domestic violence
- > Evaluations of interventions/programs, using experimental or quasi experimental designs, as an essential foundation for cost effectiveness and cost-benefit analyses
- > Methodologies for calculating the long term social, educational, and psychological impacts of domestic violence on women and children

## > Conclusion

This review did not identify one 'best' approach to estimating the economic costs of domestic violence. This is unsurprising given the complex nature of domestic violence, the diversity of agencies in contact with women, children and men affected by it, and its high intangible costs. It is also argued strongly by some in the literature that the intangible costs of pain, fear, suffering and damaged life opportunities cannot and should not be monetised, and that including the voices of women and children via qualitative data is essential to reporting the total 'costs' of domestic violence (e.g. Kerr & McLean, 1996; Stanko et al., 1998).

Most arguments about the value of bringing an economic perspective to the field of domestic violence are based on the assumption that identifying the enormous costs of domestic violence will result in increased efforts to eliminate it. However, should the mounting evidence of the economic costs of domestic violence to women, children, the community and governments fail to result in increased commitment to the prevention and eradication of domestic violence, Yodanis, Godenzi



and Stanko (2000, p. 275) issue the following challenge:

*If studies showing the economic costs of violence against women are not effective in directing government and business efforts towards reducing male violence, it may be because the economic costs revealed in such studies are less than the unspoken economic benefits of maintaining male dominance in social institutions. The millions of pounds in costs resulting from male violence may be a small price for men to pay in exchange for their continued control of political and economic power, resources, and status. In this case, we may have to use an economic perspective to address a different question—who benefits economically from violence against women?*



# Introduction

## > The development of an economic perspective

*Male violence against women is enormously costly – to the women who experience violence directly, to women generally whose lives are constrained by the fear of violence, and to governments whose expenditures are swollen by responding to some of the consequences of violence. Individual men, including those who are non-violent, also lose as a result of the barriers that are created by violence towards women. (Kerr & McLean, 1996, p. 5)*

Domestic violence is an ubiquitous and debilitating criminal, social and health problem that affects individuals, communities, businesses and governments in Australia. The *Women's Safety Survey* (Australian Bureau of Statistics, 1996) found that 23 per cent of women who have ever been married or in a de facto relationship experienced violence by a partner at some stage during the relationship. It further revealed that '2.6% per cent of women who were married or in a de facto relationship (111,000) experienced an incident of violence by their partner in the previous 12 month period, while 8.0% (345,400) reported an incident of violence at some time during their current relationship.' (Australian Bureau of Statistics, 1996, p. 7)

Since the 1970s, a range of research and intervention strategies have been undertaken by governments, communities and organisations, to better understand, prevent and overcome the effects of domestic violence (Laing, 2000). Interest in discovering the economic costs of domestic violence emerged in the late 1980s and early 1990s, with the first such study (Friedman and Couper 1987 cited in Yodanis & Godenzi, 1999a) conducted in the United States of America fifteen years ago. The first Australian study was undertaken the following year (Roberts, 1988). Since then, considerable effort has been devoted to developing an appropriate methodology to calculate the economic costs of domestic violence. This involves applying economic tools to an issue that has traditionally been viewed through lenses of criminology, sociology and psychology. As will be seen from this review, a key challenge in this endeavour lies in integrating economic and socio-psychological approaches in order to provide an economic perspective on victims' pain and suffering.

Yodanis, Godenzi and Stanko (2000, p. 270) argue that the value of economic studies on domestic violence lies in their 'potential to promote social policy and reduce violence against women'. Information about the economic costs of domestic violence emphasises the seriousness of the problem and identifies the ways in which it penetrates the work of social services, community organisations, businesses and governments. It is argued in the literature that revealing the effects of domestic violence to the public and to the organisations affected by it, might put pressure on decision makers to take steps to reduce it. The underlying assumption of this argument is that once governments acquire a monetary portrait of domestic violence, they will act to maximise benefits and minimise costs, which will ultimately work to reduce and eliminate domestic violence. From this perspective, providing an economic account of domestic violence is a crucial step in eliminating domestic violence.

It is also asserted in the literature that studies on costs of domestic violence can play an important role in bringing the issue of domestic violence into the public sphere.

*Costs of violence studies are a means for strengthening the argument that violence against women is indeed a social problem, which must be seriously addressed. Having 'far-reaching' effects is a common criteria for objective definitions of social problems. From an economic costs perspective, VAW is shown to have a wide negative impact on all of society, not only the victims. It becomes no longer possible to conclude that VAW is a 'private' problem, rather, it is unquestionably a 'public' problem because the whole of society pays monetarily, as well as non-monetarily. (Yodanis et al., 2000, p. 273)*

Some literature reviewed for this study took a different position, highlighting the negative implications of this newly emerging perspective. For example, it is argued that economics, as a science, has not developed far enough to 'adequately characterise the social costs and benefits'



(Zimrig and Hawkins, 1995 in Cohen, 2000). Crisp and Stanko argue that: 'no research design has yet been sufficiently sensitive to make a satisfactory assessment of the costs borne by individuals, nor the impact on the resources of multi-agency working.' (2000, p. 1)

## > Aims of the review

The aim of this literature review is to provide a comprehensive account of all Australian and selected international literature pertinent to assessing the economic costs of domestic violence. No attempt is made to calculate the economic costs of domestic violence. Rather, the review describes the literature pertinent to the topic; identifies similarities and differences between methodologies used; highlights strengths and limitations of various approaches; and outlines directions for future research.

## > Process of the review

This literature review was carried out in three stages:

1. A comprehensive search was undertaken by the Clearinghouse Information Officer of all Australian databases pertinent to the area of economic costs of domestic violence. (See Appendix 3)
2. A limited search was undertaken of international databases pertinent to the area of economic costs of domestic violence.
3. All Australian and selected international material was reviewed and a comprehensive report written.

## > About this literature review

- > The literature search identified 117 Australian and international sources. Whilst this is by no means broad in the wider context of domestic violence literature, it reflects the current landscape of studies on the economic costs of domestic violence.
- > Because there is only a small Australian literature on the economic costs of domestic violence, this review also includes studies attempting to estimate the economic costs of other, related social problems, such as child abuse and neglect. It also includes a review of selected international studies, both on the economic costs of domestic violence and of the costs of related social problems.
- > Due to the diversity of literature reviewed here including electronic material, journal and newspaper articles, books, reports and articles from the Internet and conference proceedings, it has not been possible to note page numbers for all references.
- > Different studies on the economic costs of domestic violence used different methodologies, diverse prevalence rates and costing procedures, and wide-ranging definitions of domestic violence. This raised many issues for the review, as comparison of research approaches became the game of comparing 'apples and pears'. Therefore, most comparisons focus on identifying key methods used in the various studies and highlighting their benefits and inadequacies in estimating the economic cost of domestic violence. While this is not the most desirable method of comparison, with the current state of development of the literature in this field, it is the most valid.



## > Definitions/terminology

### Domestic violence

The definition of domestic violence adopted directly influences methodologies chosen to estimate its economic costs. With the exception of the two Queensland studies, the Australian studies reviewed use the term *domestic violence*. Robert's Queensland study (1988) uses the term *spouse abuse*:

*The term spouse abuse has been used throughout this report to focus attention upon violence between adult partners, either married or de facto. Spouse abuse may take the form of physical, sexual or emotional abuse of a partner. It occurs between two unequal parties, in which one partner has power over the other, causing fear, physical and/or psychological damage. Domestic violence interferes with the victim's ability to function 'normally' in everyday life. (Roberts, 1988, p. 435)*

Thus, despite the difference in terminology, Robert's definition is consistent with the commonly accepted definition of domestic violence in the Australian literature. For example, the *Partnerships Against Domestic Violence* Statement of Principles defines domestic violence in the following manner:

*Domestic violence is an abuse of power perpetrated mainly (but not only) by men against women both in a relationship or after separation. It occurs when one partner attempts physically or psychologically to dominate and control the other. Domestic violence takes a number of forms. The most commonly acknowledged forms are physical and sexual violence, threats and intimidation, emotional and social abuse and economic deprivation. (in Laing, 2000, p. 1)*

Stanko et al. (1998, p. 12) provide a definition of *domestic violence* that is reflective of that used in most of the international studies reviewed:

*Domestic violence is a generic term, which refers to abusive and assaultive behaviour between intimates, among members of a household, and/or between former partners. Its most dominant form is man to woman within a partnership or former partnership.*

The term *family violence* first emerged in the mid 1990s as a commonly used term in relation to violence in Indigenous communities (Atkinson, 1996).

The definitions throughout Australian literature reflect a contemporary recognition that violence, whether defined as *domestic* or *family* includes a range of violent behaviours: physical violence, sexual, verbal, psychological and emotional abuse, as well as social isolation and economic or financial abuse (Blumel et al., 1993; Distaff Associates, 1991; Henderson, 2000a; KPMG Management Consulting, 1994, 1996; Roberts, 1988).

One international study, undertaken in Nicaragua and Chile, differentiated between two levels of physical violence:

*Moderate physical violence occurs when a women's partner slaps her, twists her arm, holds her against her will, or shoves her. These actions must have occurred fewer than five times a year. If they occur more often, they fall into the next category. Severe physical violence occurs when a women suffers more than five acts of moderate physical violence in a year, or if her partner has kicked her, hit her with an object, burned her intentionally, cut her with a knife, or choked her; or if her partner's violent behaviour causes her injuries such as body aches, broken bones, loss of consciousness, or any type of injury that requires medical attention. The two definitions are not mutually exclusive. (Morrison & Orlando, 1999, p. 53)*

The findings of the study in the Northern Territory indicated that the single most striking feature of domestic violence 'was the systematic use of fear by the male as a way of maintaining control over the female. This involved use of threats of harming her [victim], her children, damaging property, gaining custody, use of weapons, mind games, and killing pets in front of children to reinforce the threats' (KPMG Management Consulting, 1996, p. 21). However, as will become evident in this review, placing a monetary value on the fear and distress suffered by victims of



violence is one of the biggest methodological challenges in estimating the economic costs of domestic violence.

These different forms of violence not only cause damage to the person who has been abused, but also to children who live with abuse or who are themselves abused. All Australian (Blumel et al., 1993; Distaff Associates, 1991; KPMG Management Consulting, 1994, 1996; Roberts, 1988) and many international studies (Kerr & McLean, 1996; Miller et al., 1996; Morrison & Orlando, 1999; Snively, 1995; Stanko et al., 1998; Zorza, 1994) also include the impact of violence on children in their estimates of economic costs of domestic violence.

In the international literature, Snively's New Zealand study (1995) used the term *family violence* in a broader sense than is usual in the Australian studies:

*In New Zealand, it is widely accepted that family violence constitutes any violence (including the threat of violence) perpetrated by family members against other family members – men, women and children.* (Snively, 1995, p. 101)

Whilst most studies on economic costs of domestic violence consider rape and sexual assault to be a part of abusive behaviours encompassed by the domestic violence (e.g. Distaff Associates, 1991; KPMG Management Consulting, 1994, 1996; Roberts, 1988; Rudman & Davey, 2000; Yodanis & Godenzi, 1999a), some studies isolate rape and sexual assault as types of violence that require different types and frequency of support services, and calculate economic costs of rape and sexual assault separately to costs of domestic violence. See, for example, in the international literature, Greaves, Hankivsky, & Kingston-Riechers (1995) and Miller et al., (1996) and in the Australian literature, Blumel et al. (1993).

Some of the studies examined as part of the international research on economic costs of domestic violence, interchangeably refer to *violence against women* and *domestic violence* (e.g. Yodanis & Godenzi, 1999b). One Australian study (Blumel et al., 1993) explored the economic costs of *violence against women*, dividing its sample of women into those who experienced domestic violence, rape and sexual assault.

## 'Direct', 'indirect' and 'opportunity' costs

Throughout the literature in this review, costs are referred to as being *direct*, *indirect*, *tangible* or *intangible*.

*Direct (or tangible) costs* are costs incurred directly as a result of violence; 'costs associated with the provision of a range of facilities, resources and services to a woman as a result of her being subject to domestic violence,' (KPMG Management Consulting, 1994, p. 22). Examples are the costs of crisis services, accommodation services, legal services, income support and health/medical services.

*Indirect (or intangible) costs* refer to the pain, fear and suffering incurred by women and children who live with domestic violence, sometimes termed the indirect social and psychological costs of domestic violence (Laurence & Spalter-Roth, 1996). These also impact on the wider community, as this definition highlights:

*...the decrease in quality of life experienced by women, communities, and society as a result of domestic violence and the increase in restraints on battered women's human potential and activities resulting from the violence.* (Zuckerman & Friedman, 1998)

In fact, many studies reviewed suggest that these social and psychological impacts represent the highest proportion of indirect costs. Some argue further that these indirect costs are often significantly higher than the direct costs to support services, communities and governments (e.g. Miller et al., 1996). Estimating these types of costs is important, as their impacts are wide reaching and can continue long after the abuse has ended:

These different forms of violence not only cause damage to the person who has been abused, but also to children who live with abuse or who are themselves abused.



*Abuse tends to cause fear, distrust, emotional pain and suffering. Abuse can damage self-esteem, family relationships, intergenerational relationships, and our sense of community well-being. For the [woman], abuse can represent significant loss of choices and loss of opportunities to enjoy life.* (Spencer, 1999, p. 18)

In several Australian studies, *indirect* costs also include ‘the flow-on costs that are incurred when a woman leaves a violent relationship.’ (KPMG Management Consulting, 1994, p. 22). Examples are replacing damaged or lost household items, replacement of school uniforms and equipment when children change schools and settlement of a partner’s outstanding debts (KPMG Management Consulting, 1994, 1996). Income lost or forgone because of the impact of violence on women’s workforce participation is another type of *indirect* cost included in all Australian studies.

Costs are typically analysed in relation to parties that incur them. In this sense, indirect costs are predominantly borne by individuals – mainly victims and their families...

*Opportunity costs* are ‘the costs of opportunities which the participant has lost as a result of being in or leaving the violent relationship. An opportunity cost is the cost of the opportunity forgone when the woman’s options are limited by the circumstances in which she finds herself.’ (KPMG Management Consulting, 1994, p. 23) Examples would be loss of employment promotion opportunities and quality of life. Opportunity costs are often calculated as part of indirect costs, as will become evident in later sections of this report.

The terms *direct/tangible* and *indirect/intangible* are most frequently used interchangeably in Australian and international research in reference to economic costs.

Costs are typically analysed in relation to parties that incur them. In this sense, indirect costs are predominantly borne by individuals – mainly victims and their families (Snow Jones, 2000, p. 573), whereas the direct costs are predominantly borne

by governments (KPMG Management Consulting, 1996).

Laurence and Spalter-Roth also address the issue of *transfer payments*. They note that welfare payments, which appear to be an obvious cost (as many women escaping violence require social security payments), are neither direct nor indirect costs, but in economic terms, represent a redistribution of resources from one group to another. In the case of social security payments, there is a transfer from taxpayers to those who receive the payments. Nevertheless, the authors note that while these may not technically be economic costs, they may still be included in the analysis of the economic costs of domestic violence, for example, ‘to evaluate the impact of intervention strategies on the use of transfers and to estimate the impact of welfare reform on the changing prevalence and costs of domestic violence.’ (Laurence & Spalter-Roth, 1996, p.14)

## Incidence/Prevalence

Much of the Australian and international literature reviewed used the terms ‘incidence’ and ‘prevalence’, without defining these terms. Roberts (1988) addresses these definitions, and the way in which they are applied in much of the literature on the costs of domestic violence:

*While the epidemiological literature uses “incidence” to describe “new cases” occurring and “prevalence” to describe the number of active cases at any time, the reports of research cited in this review use incidence rates to refer to the epidemiologist’s annual prevalence (often per 1000) of domestic violence e.g. the Strauss and Gelles (1986) finding in the national survey in the USA was that 3% of wives experienced severe violence in a year. The number of these that were first or “new” instances of violence was not stated. This difference between “incidence” and “prevalence” is importance for prospective cost estimation.* (Roberts, 1988, p. 437)

Laurence and Spalter-Roth (1998) also address the difference between ‘incidence’ and ‘prevalence’:

*An incidence-based cost estimate reflects the stream of costs associated with domestic abuse valued in terms of the year in which it starts. It would not include the costs of all abuse occurring in that*





*year, only the costs of abuse originating in that year. (p. 15).*

They point out that, while such an approach is useful for modelling the progress of a disease and its costs over time, it is less useful in the case of domestic violence which has no typical pattern, either of the nature of the abuse or in the types and frequency of services used. They argue that:

*...an annualized prevalence-based cost estimate (which) assigns costs to the year in which they occur...is preferable for determining the efficacy of intervention strategies because, once a baseline cost is established (much like a baseline mammogram), the analyst can evaluate any change in the cost (either from a decline in prevalence or a decline in costs) from one year to the next after implementation of a new intervention. (Laurence & Spalter-Roth, 1996, p. 15)*



# Australian literature

## > Overview of domestic violence cost studies

This section reviews five comprehensive Australian studies on the economic costs of domestic violence which were conducted at the state/territory level, and a sixth study which focuses specifically on the economic costs of domestic violence to businesses and the corporate sector in Australia (Henderson, 2000a). Initially, each study is described, and its major findings outlined. This information is summarised in Table 1 (Appendix 1, page 60). This description is followed by a comparison of the studies and discussion of their strengths and limitations.

The review of the Australian literature also contains a brief review of literature identified in the search which, rather than attempting to calculate total costs of domestic violence, focussed on economic costs of domestic violence to a particular sector. (see “sectoral studies”, p. 28)

### Queensland (1988)

The first Australian study on the economic costs of domestic violence was conducted in Queensland in 1988. It was commissioned by the Queensland Domestic Violence Taskforce and published as part of the Taskforce Report (Roberts, 1988). This study emerged only a year after the first international study on economic costs, and proved a landmark for future Australian research. It sought to measure the economic costs of services provided for female victims of domestic violence, and the costs of productivity foregone by the victims. Roberts interviewed twenty women who had experienced domestic violence and who were recruited through refuges, phone-ins and counselling agencies. Using semi-structured interviews, Roberts asked the respondents to relate services used as a result of experiencing domestic violence from the time when they first sought help. The length of time from the first to the last service visit was used to estimate the duration of the case history, as distinct from the years the respondent was in the relationship. The study also collected data on the impact of violence on the women, their help-seeking, their efforts to build a new life after separation and the co-existence of child abuse.

Roberts outlines a six step process of data analysis<sup>2</sup>:

1. Information on unit costs of services used by victims was obtained from relevant agencies (converted to 1988 A\$)
2. Unit costs of services were analysed
3. The number of services used by a victim per case was translated into costing terms through information obtained in step 1
4. The cost per case for an average victim was calculated
5. The total number of case years was calculated by adding the duration of case years for each victim
6. The average cost per victim per case year was calculated by dividing the total costs by the total number of case years
7. The calculation of the aggregate cost of service provision per case year was estimated by multiplying the number of victims in the total population by the costs per victim per case year

Total *direct* costs for the sample of 20 women were over \$1 million dollars. Direct costs included police and legal costs and costs of emotional/health and physical support. The average cost of services for a victim per case was just over \$51,000 dollars. The study found that ‘the greatest part of these costs of services is incurred after women leave the violent relationships and go to live on their own with children’ (Roberts, 1988, p. 462). The services which incurred the highest costs were health services (for adults and children) and social security.



*Indirect* costs proved difficult to estimate, so the study ‘only measured the cost of productivity lost as a result of women having to cease work because of domestic violence’ (Roberts, 1988, p. 457). For the sample, these indirect costs amounted to \$113,697.

Eighteen of the women in the sample had experienced “severe” domestic violence, based on the Conflict Tactics Scale. Costs for these 18 cases were calculated separately, and a cost of \$6,959 per victim per case year identified. Projected for the Queensland female population using a prevalence rate for severe domestic violence of 3%, total annual costs of domestic violence in Queensland were estimated at over \$108 million (Roberts, 1988, p. 466).

While this study has a number of methodological weaknesses such as the small sample size, reliance on the memory of participants, and unknown representativeness of the sample, it was one of the first studies in the world to be conducted on the economic costs of domestic violence.

## New South Wales (1991)

Three years later, the second Australian study on economic costs of domestic violence was conducted in NSW (Distaff Associates, 1991) as part of the development of the NSW Domestic Violence Strategic Plan. The study used available information on the costs and consequences of domestic violence in NSW, and explored the proportion of costs borne by women and by government.

The methodology in this study did not involve conducting interviews with women who had experienced domestic violence, as did the Queensland study. The total costs of domestic violence in NSW were calculated by extrapolating the available data relating to costs of domestic violence services across the estimated population of women who were experiencing domestic violence. To calculate the number of victims of domestic violence in NSW, the study divided the presumed population into three stages. The *first stage* – ‘non-acknowledgment and non-disclosure’ – comprised women who were living in unacknowledged violent relationships and who had not accessed either formal or informal support. They represent the hidden victims of domestic violence. The *second stage* – ‘acknowledgment and help seeking’ – comprised women who have sought services to assist them with violent situations. The *third stage* – ‘building an alternative life’ – comprised women who had left violent relationships and were getting on with their lives.

Following the division of the presumed population into three groups based on the identified stages, the study used overseas figures on the percentage of domestic violence incidents that are reported to the police, and data about the number of Apprehended Violence Orders (AVOs) in NSW in 1991, to estimate that there were 100,000 *stage two* victims of domestic violence in NSW (Distaff Associates, 1991, p. 3). It is this group for which the majority of costs are calculated, since at this stage women use services and data is available.

This is the only Australian study that attempted to include in its estimates of costs, women who do not disclose domestic violence. However, as this is a group hidden from all official statistics, the estimate of numbers of women at this stage appears to have been based on what the report calls ‘stated assumptions and informed guesses’ (p. 2). The study assumed the number of women in *stage one* to be equal to the number of *stage two* victims, but used half that figure (50,000) in the calculations: ‘This represents those women suffering from a level of violence at which costs are incurred, although there is no acknowledgment of the problem, but does not count other women in relationships where violence is still low-level or sporadic and unacknowledged.’ (Distaff Associates, 1991, p. 17).

This study presents its findings in terms of costs to women and costs to governments. Included in costs for *stage one* women were medical services (e.g. additional visits to GPs, counselling, psychotropic medication) and income foregone through disruption to participation in paid employment. Included in costs to *stage two* women were accommodation costs; legal costs (including AVOs and divorce property settlement costs); medical costs (patient contributions); income forgone (giving up/not returning to paid employment); and paid work costs (including childcare and work days lost). As numbers of women who had left violent relationships and have moved on with their lives (*stage three*) could not be estimated, no costs were calculated for this group.

Included in costs to government were health, child guidance and welfare service delivery costs (total of \$35.6 million); accommodation costs (\$82.7 million); income provision costs (\$249.8



million); income earning costs; and law enforcement costs (over \$28 million).

Total annual estimates of economic costs were determined by averaging the costs of services used by the expected population. Total costs of domestic violence were estimated at \$1.5 billion on an annual basis, based on 1990 data (Distaff Associates, 1991). A core focus of the report is in identifying who bears the identified costs. It found that it is women who bear the greatest share of the economic costs: at least \$800 million per year is either paid directly by victims or is lost to them and those dependant on them due to domestic violence. The share of costs borne by government was found to be approximately half that borne by women, at just over \$400 million. The federal government was found to carry the largest proportion of government costs through expenditure on income support, housing and medical costs. The NSW government costs were smaller at \$70 million, primarily incurred through the provision of court and legal services, child welfare and family support programs.

As the report does not clearly define its use of the terms 'direct' and 'indirect' costs, it is difficult to clearly identify the ways in which the terms are being used, and to compare its findings with other studies.

## Queensland (1993)

Carried out five years after the first Queensland study, this study explored the economic costs of "violence against women". Ten women who had experienced domestic violence were interviewed to 'assess the direct and opportunity costs for the victims themselves, their children, other people and providers of goods and services used by the victims.' (Blumel et al., 1993, p. 9). Separate samples of women who had experienced rape<sup>3</sup> and sexual assault were surveyed, and the results for each of the three groups presented separately. A retrospective case study methodology was used. By asking the interviewed women in-depth questions about the type and frequency of support services used over the length of the domestic violence experience, it was hoped that the study would reveal the types of support services most commonly used and the changes in frequency of usage over a longer period of time.

Both direct and opportunity costs were calculated, with opportunity costs referring to women's lost wages due to absenteeism from work. Total costs of domestic violence were estimated by extrapolating the sample costs across the female population of Queensland. An incidence rate of 3% was used, based on international research. Using these figures, total annual costs of domestic violence were estimated at over \$556 million. Costs of rape and sexual assault were combined and calculated at around \$63 million per year (Blumel et al., 1993, p. 126). By combining the economic costs of domestic violence, rape and sexual assault, total costs of violence against women in Queensland, per year, were estimated at \$620 million.

The study estimated individual costs per case and annual costs. The final calculation was conducted in six stages:

1. Figures for each case were added to produce total direct costs per case;
2. Opportunity costs were calculated for each case by multiplying participants' weekly wages with the number of missed weeks from work due to domestic violence;
3. The direct costs and the opportunity costs were combined to produce the total cost for each case;
4. As the direct and opportunity costs had not been adjusted for the varying number of years over which they occurred, the costs for each case were divided by the number of case years to produce a cost per case year.
5. The average cost per case year was calculated by adding together the costs per case years for a number of cases, and dividing the sum by the number of cases.
6. The total costs of domestic violence for Queensland was calculated by multiplying the average cost per case year with the number of victims in Queensland seeking help in any year (Blumel et al., 1993, p. 12).



The study attempted to include the economic costs of domestic violence for perpetrators. The authors relied on participants' knowledge of the services used by their partners and obtained information from seven women, primarily about costs incurred by the perpetrator while they were still living together. The average perpetrator cost per case year for the seven cases was \$1,374 (Blumel et al., 1993, p. 47). These costs were included in the total costs of domestic violence.

## Tasmania (1994)

The Tasmanian study aimed to identify the per capita costs of services to women victims of domestic violence; to identify the direct, indirect and opportunity costs to women; and to map the pathways through services taken by women in establishing an alternative violence free home (KPMG Management Consulting, 1994, p. 3). The consultants were engaged to undertake the study by the Tasmanian Domestic Violence Advisory Committee (TDVAC) in order to provide key information to guide policy development. The study was informed by a review of the methodologies used in the previous NSW (1991) and Queensland (1993) studies.

A retrospective case study methodology was used. Forty women were selected to represent a broad range of the population subject to domestic violence taking into account demographic, geographic and service use characteristics. Data collected through in-depth interviews examined '...the nature and type of violence; factors hindering and assisting participants to seek help sooner; the ongoing impacts of the violence on women and children's emotional and psychological well being; the range, duration and frequency of services used; pathways women took in accessing services; impact on employment; and lost opportunities attributable to living in a violent domestic relationship.' (KPMG Management Consulting, 1994, p. 12)

Data was analysed in two ways:

- > Qualitative data was collated and reviewed in relation to the experience of violence and its impact on the participating women and their children
- > Data on type and frequency of service usage was entered into a computer based financial model which was developed for the study. This data was analysed together with data relating to service costs to produce the final projection of costs (KPMG Management Consulting, 1994, p. 5)

The study employed the concept of a "case year":

*This concept enables cases of different lengths of time to be compared to each other. As such, the number of case years is defined as being the number of years after and including the year in which the first direct cost was incurred, to the time when costs as a result of the violence ceased. In all cases, these costs were continuing in one form or another to the end of 1993 when the survey was conducted.* (KPMG Management Consulting, 1994, p. 23)

The average number of "case years" for each participant in this study was 8.15 years.

The *total direct and indirect* costs of domestic violence for the sample were estimated at nearly \$4 million. Of this amount, 64.1% was borne by the community/government; 34.6% by the women; and 1.3% by others, by which is meant informal networks of family and friends (KPMG Management Consulting, 1994, p. 67).

The average *direct* costs across all participants were \$9,458 per case year. By extrapolating this figure across the Tasmanian female population using 1991 Tasmanian census data and 1.8% incidence rate (KPMG Management Consulting, 1994, p. 8), total *direct* costs of domestic violence were estimated at \$17.671 million annually. This is regarded as a conservative estimate, as costs are anticipated to increase over time for the study participants.

The report of the study devotes considerable discussion to the difficulty involved in establishing the incidence rate for use in extrapolating costs from the sample to the wider Tasmanian community. The consultants used the rate determined by the advisory committee (TDVAC) in conjunction with the Tasmanian Office of the Status of Women. In establishing the 1.8% prevalence rate, consideration was given to the previous Australian studies, previous studies in



the US and Canada, and the rate of domestic violence identified in Hamilton, New Zealand with the introduction of a co-ordinated, criminal justice response to domestic violence. It is noted in the report that, if the 4.5% incidence rate from the NSW study were used, the total direct costs per year would have been calculated at \$44.177 million.

In terms of *direct* costs, the study found that the largest proportion (81.3%) is borne by the community/government; 18% is borne by the women; and less than 1 % by informal networks. This is unsurprising, as the largest proportion of direct costs (57%) relate to the provision of social security and other forms of financial support to victims of violence after they leave the violent partner. Accommodation comprised the second highest category of direct costs. Further analysis of direct costs relating to *children* showed that women bear 72% of these costs, the community/government, 22%, and informal networks, 5%.

The average *indirect* costs per case were \$22,150. However, these were not extrapolated across the wider population:

*...as this figure was not capable of being reasonably projected. Indirect costs were incurred when the participants took action to remove themselves and their children from the violent relationship. While the average per cost case for indirect costs could be ascertained, it is beyond the scope of this report to determine the number of violent relationships ceasing in each year; a figure which would be needed to complete this analysis.* (KPMG Management Consulting, 1994, p. 32)

Total indirect costs for the sample came to \$886,609, with the largest proportion (73%) comprising costs associated with replacement of lost and damaged property (KPMG Management Consulting, 1994, p. 55).

Data on *opportunity* costs were mainly qualitative, so these were not included in costings, this aspect of the methodology contributing to the costings in this report being very conservative. Examples of opportunities lost which are cited in the report include: restricted freedom and associated loss of quality of life; reduced standard of living as a result of leaving the relationship (i.e. reduced income) and not being able to replace some luxuries of life; loss of secondary/tertiary education and career opportunities; being made bankrupt due to ex-partner's debts; and forced sale of a growing business, resulting in loss of future income and loss of possible employment for children in the future.

## Northern Territory (1996)

This study, commissioned as part of the Northern Territory Government Domestic Violence Strategy, was carried out by the same consultants who undertook the Tasmanian study (KPMG Management Consulting, 1996) and drew on the methodology and financial model developed for the Tasmanian study.

The study aimed to identify:

- > 'an approximate per capita cost of services to women who are domestic abuse victims; and
- > the approximate cost to women themselves, both borne directly and indirectly.' (KPMG Management Consulting, 1996, p. 5)

The consultant's brief required that the report include:

- > 'detailed information on a case study basis;
- > an approximate per capita cost of provision of services to domestic violence victims in the Northern Territory;
- > an approximate annual cost of the provision of services to domestic violence victims in Northern Territory,
- > a sectoral analysis of costs incurred; and
- > the results of an analysis of the qualitative data which identified the range of services



accessed by women and the individual pathways which women take through the services.’ (KPMG Management Consulting, 1996, p. 5)

The methodology used was ‘a retrospective case study approach based on a purposive sample of 32 women victims of domestic/family violence’ (p. 53). The sample was recruited via newspaper and media coverage of the study and selected to reflect a range of characteristics including geographical spread; NESB and Aboriginal women; age; marital status; service usage characteristics; and length of time since establishing a violence free life (KPMG Management Consulting, 1996, p. 53). Whilst a total of 57 women volunteered to participate, the selection criteria was a minimum elapsed time of 2 years since the violence began, as ‘it was considered that a lesser period would not provide a sufficient span for the identification of resultant costs.’ (KPMG Management Consulting, 1996, p. 53).

Indirect costs were incurred when the participants took action to remove themselves and their children from the violent relationship.

Data was collected via a semi-structured questionnaire, covering the nature and type of violence experienced; factors hindering/assisting help seeking; on-going impact on women and children’s physical and emotional well-being; impact on employment and career opportunities; the type and frequency of services accessed; and financial and opportunity costs/losses.

The total *direct* costs of domestic violence for the sample were calculated at approximately \$2.7 million. Since these costs may be incurred over many years, the total costs were divided by the number of case years<sup>4</sup> to obtain a direct cost per “case year”. The average direct cost per case year was \$11,812. Extrapolated across the Territory, using the Women’s Safety Survey’s incidence rate of 2.6 per cent (Australian Bureau of Statistics, 1996), it was estimated that the direct cost of domestic violence to the Northern Territory each year is \$8.86 million. All direct costs are expressed in 1996 dollars.

Included in direct costs are the women’s use of crisis, emergency support, information/relief, police, accommodation, health/medical, counselling/support, financial, legal and judicial services; and their children’s usage of health/medical, child care and counselling/support services. These were costed on the basis of information supplied by service providers. Children’s service usage comprised 2.5% of total service usage. The provision of income support comprised the greatest proportion of direct costs (48.2%), followed by accommodation costs (33.2%). The Government/community sector bore 81% of the direct costs; the women, 16.3%; and others (friends and family), 2.7%.

*Indirect* costs were estimated at over \$1.2 million for the sample, with an average of \$38,563 per case. The consultants did not extrapolate indirect costs from the sample to arrive at an annual figure for the Territory. They explain this decision in the following way:

*...indirect costs generally occurred after the participant had left the violent relationship and an accurate picture of the cost each year is impossible to obtain. We believe, therefore, that adding a cost each year for the indirect costs to the direct costs is unwise and could be misleading through understatement.* (KPMG Management Consulting, 1996, p. 51)

However, the report provides a ‘very conservative estimate of \$5,377 for each participant each year...’(p. 2). The study estimated that the women bore 95.2% of indirect costs, with the government/community bearing 2.0% and others (family and friends), 2.8%.

The costs of lost opportunities due to domestic violence were regarded by the consultants as ‘evident but difficult to quantify’ (p. 3). The report concludes, with respect to lost opportunity costs:

*Overall, it was the view of the participants that lost opportunities could not be quantified yet they possibly carry the highest cost. As the women and children began rebuilding their violent [sic] free lives, they started with an emotional, physical and financial deficit, which most reported placed themselves and their children in a position of permanent and or long lasting disabilities.* (KPMG Management Consulting, 1996, p. 51)



## The Brisbane City Council study into the costs of domestic violence to the Australian business and corporate sector (Henderson, 2000)

The most recent Australian study, commissioned by Brisbane City Council, focuses on the economic costs of domestic violence to businesses and employers Australia-wide (Henderson, 2000a). This study reviewed Australian and international research pertinent to the impact of domestic violence on the business sector. Information required for costing analysis was primarily obtained from the Australian Bureau of Statistics and a review of the State and Territory costs of domestic violence studies described above.

The annual cost of domestic violence to business was estimated at \$1.5 billion with an approximate cost of an individual case of domestic violence being estimated at just under \$10,000. Total costs included direct<sup>5</sup> costs to employers, through lost productivity and various other impacts on the workplace such as absenteeism, and indirect costs, which were calculated by looking at government's share of the costs of responding to domestic violence (i.e. medical, legal, police, prison and other service costs) paid indirectly by businesses through taxes. These costs were estimated at almost \$400 million annually. The report further estimated foregone income for victims and perpetrators to be \$175 million. Costs of pain and suffering could not be depicted in financial terms, and were not included in total calculations. This study is described in further detail in the section on 'Sectoral Studies' (see page 28)

## > Comparison of Australian Studies

### Differences in annual prevalence rates used

All efforts to calculate the costs of domestic violence come up against the difficulty of estimating the extent of domestic violence, as violence in intimate relationships is hidden and thus undercounted (Miller et al., 1996). Even the best available statistics are considered to be only conservative estimates of the 'real' extent of domestic violence.

*Crime surveys when compared to surveys of women, show that most violence never becomes part of the official statistics...On one hand, this limits the possibility of cost studies to provide accurate cost estimates and useful information to service providers and policy makers. On the other hand, cost studies bring to light and can reduce this lack of knowledge in parts of society where individuals usually do not consider themselves impacted by violence. (Yodanis & Godenzi, 1999a)*

Different total costs of domestic violence calculated by the five studies can be partly attributed to differences in the annual prevalence rates of domestic violence employed.

The Northern Territory (1996) and the Brisbane City Council studies (Henderson, 2000a) are the only studies conducted in Australia since national incidence and prevalence data became available from the Women's Safety Survey (Australian Bureau of Statistics, 1996). Australian studies on economic costs conducted prior to the availability of this study had to rely on international data and their own assumptions, to estimate the incidence and prevalence of domestic violence. Annual prevalence rates used in the Australian studies are as follows, from lowest to highest:

**Tasmania: 1.8%**

**Brisbane City Council (Henderson): 2.0%**

**NT: 2.6%**

**Queensland (both): 3%**

**NSW: 4.5%** (*not stated in the report but as calculated in the Tasmanian report*)

While the Women's Safety Survey was a landmark study, the first to provide national estimates of the nature and extent of violence experienced by Australian women, it has some important limitations:





*In general, the survey does not support reliable estimates for the states and territories. Nor does it allow for disaggregation of data...The size and scope of the survey also affects estimates relating to small population groups. For example, there have been particular concerns about levels of violence experienced by Indigenous women. The Women's Safety Survey cannot provide any insights into this issue because women living in rural and remote areas had a reduced chance of selection and because the number of Indigenous women in the survey was small.* (Australian Bureau of Statistics, 1996, pp. 2-3)

These limitations seem particularly pertinent to the Northern Territory. However, the Northern Territory study used the 2.6% incidence rate from the Women's Safety Survey 'despite the view that it was a very conservative estimate of domestic violence incidents in the Northern Territory' since it was regarded as 'the best available information for the purposes of the study' (KPMG Management Consulting, 1996, p. 61).

The Brisbane City Council study (Henderson, 2000a) used an annual prevalence rate of 2.0%, the midpoint between the 1998 Crime and Safety Survey (Australian Bureau of Statistics, 1999) and ABS Women's Safety Survey (Australian Bureau of Statistics, 1996), rounded to 2%.

More accurate estimates of the incidence of domestic violence would improve the accuracy of studies on economic costs of domestic violence. Costs in this way would represent not only a figure in millions or billions of dollars, but also a meaningful reflection of the pervasive impact of domestic violence, in monetary and non-monetary terms. Studies utilising the same incidence rates but differing in methodology, could also be more easily compared.

Costs ... represent not only a figure in millions or billions of dollars, but also a meaningful reflection of the pervasive impact of domestic violence, in monetary and non-monetary terms.

## Data collection and methodology

Australian studies on the economic costs of domestic violence applied one of two methods of data collection: either drawing on existing organisational data or drawing a sample of women who have experienced domestic violence – i.e. the organisation as unit of analysis or individual women as the unit of analysis. The NSW and Brisbane City Council (Henderson, 2000a) studies take the former approach. The latter method is applied by the four remaining studies. This methodology was not used in any of the international studies reviewed. Limitations arising from approaches which use individual women as the unit of analysis have been identified in the international literature:

*Weaknesses result when individuals are the unit of analysis in costs of violence studies. Under these circumstances, estimates are not based on data from particular agencies, organisations or businesses. Rather, they are calculated based on women's use of unspecified service agencies and experiences in unspecified work places ... The resulting estimate [therefore has] limited meaning for and effect on service providers as...figures may not be viewed as applicable to their organisations and cannot provide advice on how to alter daily operations and services to better meet the needs of women experiencing violence.* (Yodanis & Godenzi, 1999a)

On the other hand, the same authors (Yodanis & Godenzi, 1999a) point out the weaknesses in relying on data from government statistics. The availability of data related to incidents of domestic violence and types, frequency and length of support services used by victims of domestic violence is scarce, and studies that use such statistics as a unit of analysis often run into difficulties, as they are constrained by the type of data available, rather than being directed by the operationalisation of research concepts.

Three of the studies (Blumel et al., 1993; Distaff Associates, 1991; Henderson, 2000a) collected data on the costs generated by perpetrators of domestic violence, in addition to victim-related costs. The other studies only collected data pertaining to victims (KPMG Management Consulting, 1994, 1996; Roberts, 1988)



## Who bears the costs?

Several of the studies addressed the question of the proportion of costs of domestic violence borne by different parties. The Tasmanian and Northern Territory studies found that governments bear the largest proportion of direct costs and that women bear the largest proportion of indirect costs. This, however, may be a consequence of the similar methodologies applied in these two studies. The approach of the Brisbane City Council study (Henderson, 2000a) is interesting in this respect, in that the point is made that the direct costs of services provided by government are in fact indirect costs to the business sector, incurred through taxation. The Tasmanian and Northern Territory studies make a similar point – i.e. that the whole community incurs high costs due to domestic violence – by denoting the share of costs paid by governments as ‘community/government’.

A major goal of the NSW study was to identify costs and ‘to show who bears them’ (Distaff Associates, 1991, p. 2). It concluded that victims incur around double the costs of those borne by governments and the community. These findings are difficult to compare with those of the Tasmanian and Northern Territory studies, because of differences in methodology. The NSW study combines what would be termed in other studies ‘direct’ and ‘indirect’ costs, and divides its results into ‘costs to women’ and ‘costs to governments’ (rather than dividing costs into ‘direct’ and ‘indirect’). A considerable proportion of the costs to women identified in the NSW study were the costs of income forgone (e.g. \$125 million for stage one women through being forced to give up paid employment or not returning to work; \$528 million for stage two women who move from paid employment to social security). However, these indirect costs were not monetised in the Tasmanian and Northern Territory studies.

One comparison of findings regarding the proportion of costs borne by women and by government/community can be made by comparing the Tasmanian and NSW studies. The Tasmanian study did identify the proportions of total direct and indirect costs borne by the *sample* (although the indirect costs were not projected for the Tasmania population). For the sample of women, 64.1% of total costs were borne by the community/government; 34.6% by the women; and 1.3% by family and friends (KPMG Management Consulting, 1994). Thus the Tasmanian study found that governments, rather than women, bear the greater share of the costs, the opposite to the NSW finding. However, monetisation of income lost/forgone in the Tasmanian study would have increased the proportion of costs borne by women.

## Approaches to estimating indirect/intangible costs

All the Australian studies had difficulty in quantifying the indirect/intangible costs of domestic violence to women and children. This is a problem shared with studies carried out internationally, as will be seen in the review of the international literature. In most Australian studies, the only indirect costs which were quantified were the costs of income lost/forgone due to the impact of domestic violence. This approach was taken by both Queensland studies, the NSW and the Brisbane City Council (Henderson, 2000a) studies. The Tasmanian and Northern Territory studies collected considerable qualitative data about the impact of domestic violence on women’s participation in paid employment, but did not monetise these costs.

None of the Australian studies was able to place a monetary value on the indirect/intangible social and psychological costs of violence to women and children. For example, Henderson states (2000a, p. 17):

*The social and psychological impacts on the individuals concerned and on the wider community are incalculable.*

The Australian studies which interviewed a sample of women as part of their methodology, deal with the problem of estimating the intangible social and psychological costs through the inclusion of qualitative (descriptive) data. This is consistent with the approach taken in a number of international studies as a way of including these ‘costs’ (e.g. Kerr & McLean, 1996; Laurence & Spalter-Roth, 1996). The NSW and Brisbane City Council (Henderson, 2000a) studies identified these costs, including the intergenerational costs, but neither quantified these costs nor provided qualitative data.



The qualitative data presented in the studies found that domestic violence has a negative and long-lasting effect on women and children's emotional and social well-being. For instance, the Tasmanian study highlighted that the impact of violence on women continues after they leave violent partners. A combination of anxiety, depression, fear, loss of competence, eating and sleeping disorders, loss of self esteem, lack of a positive body image, and lack of security in the outside world were reported by two thirds of all women interviewed. (KPMG Management Consulting, 1994). Similar proportions of women in the Northern Territory study reported ongoing emotional effects of violence that followed long after they escaped the violent relationships. The experiences of women interviewed in the Northern Territory study suggested that the impact of domestic violence on women ranged from ill physical health caused by injuries, to women's inability to concentrate and go to work. Physical injuries were present in over 59 per cent of cases, and all women reported fear as the most debilitating impact of the violence.

The qualitative data also indicated that the impact of domestic violence on children can be severe. For example, the Queensland study (Roberts, 1988) found that a number of children from the sample suffered emotional trauma and required psychiatric treatment. Children's behavioural problems precipitated by domestic violence included bedwetting, nightmares, withdrawal, lack of confidence, loss of self-esteem, refusing to go to school and tantrums and emotional outbursts (KPMG Management Consulting, 1994, p. 40). These often continued after victims left the violent partner. In the Northern Territory study (1996) women reported that the experience of living with violence affected their children's performance at school and their emotional development later in life. Both the Northern Territory and first Queensland studies found that some children also suffered physical, sexual or verbal abuse by the perpetrator.

The long-term effects of domestic violence on children's educational and employment opportunities later in life is not included in the costings in the Australian studies on economic costs of domestic violence. However, studies reviewed later, especially in relation to research in allied areas, indicate that the long-term effects of domestic violence on children, and the associated costs to the children and the community, are very high.

Most studies took the view that the costs of lost *opportunities* cannot be quantified ( e.g. Henderson, 2000a; KPMG Management Consulting, 1996). For example, the NSW study provided an example of an identified opportunity cost to migrant women which could not be monetised: 'The costs of loss of residency, particularly for women from countries with poorer economic options for women cannot be estimated, as they involve loss of life chances for women themselves and for their families who might have hoped to join them'. (Distaff Associates, 1991, p. 20)

## Differences in definition

It is difficult to compare the results of the second Queensland study (Blumel et al., 1993) with other Australian studies, because it focussed more broadly on 'violence against women', rather than solely on domestic violence. The data is confusing because the domestic violence sample in the study reported that eight out of ten of the women experienced sexual abuse as part of the domestic violence perpetrated against them, and the assailants of the women in the rape and sexual assault samples included husbands, de facto partners and ex partners.

As noted previously, the NSW report does not clearly define its use of the terms 'direct' and 'indirect' costs, making it difficult to clearly identify the ways in which the terms are being used, and to compare its findings with other studies. While the Brisbane City Council (Henderson, 2000a) study defines these terms differently to the other Australian studies, the text makes clear the meanings attributed to these terms.

## Can the findings be compared?

Each of the studies which used a retrospective case study approach (Blumel et al., 1993; KPMG Management Consulting, 1994, 1996; Roberts, 1988) dealt with the problem of comparing case histories of different lengths by the use of the concept of a "case year". While there are some slight differences in the definition of this concept, it usually involves calculating the period of time from the first to the last use of services. This enables an average cost per case year to be calculated, and



these can be compared across some studies. For example, the average direct cost per victim per case year in the Tasmanian study was \$9,458, and in the Northern Territory study, \$11,812.

The Brisbane City Council study (Henderson, 2000b) converted the findings of five Australian studies to A\$1999 in order to compare them with the findings of her study<sup>6</sup>. Costs to *government/community* in her study were \$6,171 per victim, compared with the following costs per victim to the community/government calculated in the other studies:

**Tasmania: \$7,910**

**NT: \$10,186**

**Queensland (1988): \$6,555** (*services, not specified to community*)

**Queensland (1993): \$11,455 to the community**

**NSW: \$2,938**

Henderson found that total costs to *victims and others* in her study were \$4,352 per case. Undertaking a similar comparison in A\$1999, she found the following costs to victims and others in the other studies:

**Tasmania: \$1,837 to victim plus \$45 to others**

**NT: \$1,976 to victim plus \$323 to others**

**NSW: \$5,786 to victim, not including perpetrator costs** (*\$1,872 when income reduction costs excluded*)

**Queensland (1993): \$2,864** (*rises to \$16,762 per victim when opportunity costs are included – based on average opportunity costs plus 20% average direct costs, not including perpetrator costs*)

Henderson (2000b) concludes that her findings in both cases are consistent with the range of costs identified in the other Australian studies.

## > Sectoral Studies

The literature search identified some Australian literature which addresses the economic costs of domestic violence to a particular service sector. In most of the literature identified, the identification of the costs of domestic violence was not the primary focus of the publication. This is the case with the literature described which addresses the costs of domestic violence in the health, Family Law and housing sectors.

The exception is the Brisbane City Council study (Henderson, 2000a) of the costs of domestic violence to the business sector, discussed below. While this study focuses only on the costs of domestic violence to the business sector, it takes a broad view of the costs which are incurred by business, for example, by including the portion of taxes paid by businesses which go to the funding of services for the victims and perpetrators of domestic violence.

### Business/corporate sector

As most studies in this literature review found, many women who have experienced domestic violence have been employed during at least some stage of their victimisation. Many have either left or been fired from their job because of the effects that violence has had on their ability to work. Others have been unable to go to work because of fear of being found by perpetrators.

All five state/territory studies have included costs of domestic violence on businesses and employers as an important segment of overall costs of domestic violence. One of the earliest



studies conducted in 1991 in NSW, estimated costs to employers due to absenteeism, poor concentration and lost productivity of women to be around \$320 million (Distaff Associates, 1991). The study also pointed out that it is not only the impact of domestic violence on women that costs employers, but also the costs associated with perpetrators who take time off for court appearances. Costs such as these were estimated to incur NSW employers an additional \$48 million annually.

According to the 1994 study in Tasmania, the single most frequently reported factor which affected gaining and maintaining employment of study participants, was the high level of anxiety experienced due of violence. Thirty eight out of 40 women in the study said they were so anxious that they could not work and 'all the women interviewed who had worked during the violent relationship noted that they were not able to separate the trauma of their personal life from their work life, resulting either in lost days or poor performances'. (KPMG Management Consulting, 1994, p. 47) In calculating opportunity costs of domestic violence, the study found that victims' diminished ability to work also puts an extra financial burden on the community, as these women are unlikely to accrue superannuation or investments or to own a home, making them susceptible to welfare dependency later in life (KPMG Management Consulting, 1994).

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The Northern Territory study found similar effects of domestic violence on women's participation in paid employment. Twenty nine out of the 32 women were employed during at least one stage of a relationship in which they were subjected to domestic violence and 69 per cent reported 'stopping work for periods ranging from 3 months to 2 years because they were physically and emotionally exhausted, angry and depressed.' (KPMG Management Consulting, 1996, p. 17) In addition to this, in 40 per cent of cases, participants' friends and family took time off work to accompany women to court, hospital or to look after their children. Neither the Tasmanian nor the Northern Territory studies, however, monetised the impacts of domestic violence on women's employment.

The most recent study (Henderson, 2000a), commissioned by Brisbane City Council, has taken the impact of domestic violence on employers and businesses a step further, by focusing the whole study on the impact of domestic violence on the Australian business and corporate sector. Its findings indicated that the economic costs of domestic violence on businesses and corporations are significant, at over A\$1.5 billion annually (in 1999\$).

The study is detailed in its examination of various aspects of business that can be affected by violence. It is important to note that this study uses the terms 'direct' and 'indirect' costs in a different sense to other Australian and international studies, as becomes clear in the following outline of the costs identified.

The study identified and costed the impacts of domestic violence in four areas:

- > Direct costs to employers from workplace impacts. These include costs of absenteeism (e.g. victim lost work days and lost work time due to lateness, perpetrator and other absenteeism); staff turnover (e.g. replacing victimised staff and perpetrators); lost productivity (e.g. diminished work performance by victims and perpetrators, workplace disruption); and employer liability for safe workplace practices. The report estimated that absenteeism and staff turnover due to domestic violence cost the business sector \$34 million every year; and that lost productivity due to domestic violence costs between \$425.5 million and \$605.4 million annually, based on 'two conservative scenarios to estimate the diminished work performance component.' (Henderson, 2000a, p. 14)
- > Indirect costs – i.e. tax share of public sector costs relevant to domestic violence contributed by employers. These include: health and mental health services (e.g. casualty care, hospital admission, ambulance, GP, counselling for victims and their children); accommodation; criminal justice; child protection services; special education services for children of victims;



other victim services, training for public sector staff; services (including corrective services) for perpetrators; income support for victims; and tax revenue forgone (Henderson, 2000b). The report concludes that the business sector's tax share of government services required to respond to domestic violence is \$394 million per annum (Henderson, 2000a, p. 15)

- > Direct and opportunity costs to victims, perpetrators, family and friends. Includes loss of income to victims due to absenteeism and ceased employment; health and medical costs for victims and their children; counselling; private legal costs; property replacement; household security measures by victims; partner's bad debts accruing to victim; income forgone by incarcerated perpetrators; loss of wages by family and friends supporting victims; direct costs of victim and perpetrator support to family and friends (accommodation, financial, childcare); costs associated with death of victims; victim lost days of unpaid work in the home; and psychological and social impacts, which were identified but which were unable to be costed (Henderson, 2000b).
- > Shared impact of domestic violence on the wider community, including inter-generational costs. These include support services provided by agencies not funded by government, lost unpaid community work, superannuation burden, and intergenerational impacts (Henderson, 2000b). Many of these costs were identified, but were unable to be costed.

Henderson points out that the direct costs to employers are not only end costs in themselves, but affect other aspects of an organisation, such as distribution and production, which can result in late deliveries, bringing about customer dissatisfaction and lost business. Similarly, direct costs to women, such as the inability to work caused by domestic violence have a 'domino-effect' on other sectors of the society.

*For example, a victim who is prevented from returning to paid employment or is forced to stop working for reasons associated with domestic violence has foregone income that would otherwise be earned. The business sector has lost profits that might have accrued from the increased expenditure available because of those earnings. Government has also foregone revenue otherwise available from taxation. (Henderson, 2000a, p. 8)*

By estimating the amount of money that businesses lose every year because of domestic violence, the Henderson report plays an important role in bringing about a realisation that the movement against domestic violence should not only be left to governments, support agencies and communities, but that businesses and corporations also need to play an active role. This can be an important step in initiating a more integrated response to domestic violence across all sectors of society.

Work is beginning in Australia in encouraging employers to address domestic violence in the workplace. The Northern Territory has published an information report for employers (Gzik & Hunter, 1996), providing information about the nature and extent of domestic violence and the costs and impact on the workplace as identified in the NT study. It also includes case studies and strategies for addressing domestic violence in the workplace.

Other efforts to engage business in addressing domestic violence have recently been initiated at the Commonwealth level and in Queensland. 'Partnerships Against Domestic Violence: A Business Approach' is encouraging partnerships between the domestic violence sector and small, medium and large business to encourage the take-up of workplace policies to address the impact of domestic violence in the workplace and to assist workers to understand domestic violence and to access services. The Gold Coast Domestic Violence Service (2000) has developed a training/information manual for the workplace. In Brisbane, 'Australia's CEO Challenge: Workplace Partners Against Domestic Violence' (The Lord Mayor's Women's Advisory Council CEO Challenge Committee, 2001), encourages partnerships between the business sector and the community in responding to domestic violence. In addition to providing facts about the nature and extent of domestic violence in Australia, the publication gives examples of businesses that have provided women's refuges with business opportunities for sheltered women in exchange for information on how to recognise and deal with domestic violence in the workplace.



## The health sector

Quinlivan and Evans (2001) conducted a study on the impact of domestic violence in young teenage pregnancy outcomes. The authors found that the 'incidence of domestic violence among pregnant Australian teenagers are higher than rates reported for the general community' (p. 17). The study found that teenage victims of domestic violence were more likely to smoke, drink alcohol, use illegal drugs and to have higher incidence of infectious morbidity and pap smear abnormalities. As a consequence, the estimated cost of hospital care for teenage victims of domestic violence was double the Australian average.

## Housing

An early study (Mugford, 1989) found that the 1987/1988 refuge funding in Australia cost \$27.6 million. The National Data Collection report of the Supported Accommodation Assistance Program (SAAP) reports that total recurrent funding for SAAP in Australia was \$245.5 million in 1999/2000, and that 90,000 clients received support. Domestic violence was the most frequently stated reason for seeking assistance under this program (23 per cent)<sup>7</sup>. 'Fifty-seven per cent of females with children and 44% of single women aged over 25 sought assistance mainly because of domestic violence.' (Australian Institute of Health and Welfare, 2000, p. xviii). In the preceding year, similar findings were reported: 24 per cent of 90,700 SAAP clients were women escaping domestic violence. In rural areas, funding for women escaping domestic violence was even higher, consuming 51 per cent of funds allocated to accommodation services (Australian Institute of Health and Welfare and SAAP National Data Collection Agency, 2000).

## Family Law

Sheenan and Smyth (2000) studied the post-separation repercussions of domestic violence, with an emphasis on its impacts on property settlements. The methodology involved a national random sample (excluding Western Australia) of 398 Australian men and women who had separated after January 1988. Their findings point to another category of costs of domestic violence to women:

*Despite the extent of financial difficulties experienced, and their ongoing responsibility for the care of children, women who reported spousal violence are more likely than women who report no violence to have received a minority share of property...the share of property that these women receive appears to reflect the practical difficulties they face in trying to negotiate a fair settlement with a violent former spouse—a situation where safety may be given precedence over the right to a fair share of the matrimonial property. (Sheenan & Smyth, 2000, p. 118)*

A similar finding was reported in the Northern Territory study, where 47 per cent of the women believed that the property settlement was unfair: 'a major contributing factor was their focus on ensuring the partner did not return and this resulted in the women conceding to demands or threats regardless of advice to the contrary provided at the time.' (KPMG Management Consulting, 1996, p. 46) Parkinson (2000, pp. 4-5) argues for the use of compensation within the Family Law Act, with the Court being 'empowered to award compensation for pain and suffering and economic loss as a result of a history of family violence during the marriage.'

## Conclusion: Australian studies

While now somewhat dated, the Australian studies on the economic costs of domestic violence are pioneers in the field. Their methodologies provided a useful foundation for future Australian and international studies. A case in point is the 1991 NSW study which is referred to in international studies (e.g. Miller et al., 1996; Snively, 1995; Yodanis & Godenzi, 1999a) for its inclusion of both identified and hidden victims of domestic violence in the calculation of economic costs. The only study to take a national approach is The Brisbane City Council's study into economic costs of domestic violence on businesses and corporations (Henderson, 2000a). It also demonstrates the value of 'costs' studies which focus on one sector in depth.

In addition to providing estimates of the economic costs of domestic violence, a number of these studies provide some of the earliest information available about the patterns of Australian



women's help-seeking. They are also rich in qualitative data about the impacts of violence on women and children and about how women cope in the face of efforts to control and terrify them.

## > Australian Economic Cost Studies In Allied Areas

The literature search identified seven items that investigate economic costs in allied areas. They look at crime in general, child sexual assault offender programs, and child abuse and neglect. Some focus solely on the economic costs of particular programs or issues, while one more recent publication (Chisholm, 2000) provides a guide on how to conduct benefit cost analyses, which, the author notes, would assist in determining benefits of different approaches in eliminating and treating domestic violence. This publication will be included in the later discussion of cost effectiveness and benefit cost analyses.

### Crime in general

Chappell (1992) provides a general overview of the impact of crime on the community. Whilst the methodology of the study is not explicated, he estimates that 'crime may cost Australians at least \$27 billion each year, or nearly \$1,600 for each man, woman and child'. (Chappell, 1992, p. 20) The report suggests that approximately \$50,000 is spent per offender each year for maximum-security prisons. Chappell's paper notes that the cost of crime is high not just in monetary but also in non-monetary terms. He suggests a number of strategies that could be useful in cutting its costs, such as promoting citizen responsibility for crime prevention, involving local governments, providing for the victims of crime, and a reform of criminal laws and procedures.

Walker's study (1992) investigates the types of criminal behaviours that should be included in estimating the economic costs of crime, pointing out that economic analysis includes two different types of costs, *financial* and *economic*:

- > 'Financial costs are those, which are not in the eyes of the economists losses to the community, but are illegal transfers of purchasing power from victims to offenders. For example a thief that steals \$100 is better off by that amount and there is no loss to the community as the [purchasing power] has just been redirected from a victim to a thief.' (Walker, 1992, p. 2)
- > 'Economic costs of crime, or opportunity costs, arise when crime causes society to divert time, energy and resources from more productive purposes. These include diversion of scarce medical resources.' (Walker, 1992, p. 2)

### Child abuse and neglect

McGurk and Hazel (1998) conducted a study with the aim of providing an account of annual fiscal and economic expenditure on child abuse and neglect in South Australia. It found that the total fiscal expenditure on child abuse and neglect for the year 1995/6 was \$41.4 million, although some significant costs were not included in this estimate:

*[The estimates] do not include any allowance for down line costs associated with adult malfunction, other than with respect to the specific issue of the intergenerational transmission of abuse. Neither has any cost been related that includes child victims who have as adults been incarcerated or hospitalised for reasons arising as a consequence of child abuse; nor is there an attempt to cost the social effects of child abuse and neglect from the perspective of the individual victim. (McGurk & Hazel, 1998, pp. 2-3)*

This study is important as the first attempt to estimate the cost of child abuse and neglect by an Australian state (Shanahan & Donato, 2001). The researchers used a Canadian and New Zealand 'willingness to pay' approach (contingent valuation method) to calculate indirect costs of child abuse, an approach which was initially used to estimate indirect costs of road accidents. Indirect costs are estimated by determining how much individuals were willing to pay to avoid injuries caused by road accidents. Whilst this approach was not initially intended for calculations of child abuse costs, it provided the researchers with examples of unit costs (types of injuries) that can be





used in estimating child abuse costs. The findings of this study were subsequently utilised in the benefit-cost study of child sexual assault offender treatment program, described next.

## Child sexual assault

While no cost-benefit analyses<sup>8</sup> were found in the Australian domestic violence literature, this review identified one in the field of child sexual assault (Donato & Shanahan, 1999, 2001; Donato, Shanahan, & Higgins, 1999; Shanahan & Donato, 2001). This study sought to 'identify the economic costs and benefits of pedophile treatment programs incorporating both the tangible and intangible costs of sexual abuse to victims.' (Shanahan & Donato, 2001, p. 541) Rather than studying a particular treatment program, the authors construct a 'generic' in-prison treatment program employing a cognitive behavioural treatment approach, based on several existing programs.

This study is very valuable because it tackles several difficult issues which would need to be addressed if a similar methodology were employed, for example, to ascertain the costs and benefits of domestic violence perpetrator treatment programs. One issue is how to calculate program effectiveness by measuring recidivism. As will be seen in the section on benefit-cost analysis, the foundation for such an analysis is rigorous evaluation of program outcomes. The controversy about recidivism rates which the authors acknowledge in the field of child sex offender treatment programs, is probably even greater in the field of domestic violence perpetrator programs (Gondolf, 2001). The other issue tackled in this study is the methodology for placing a monetary value on the costs of victim pain and suffering which would be avoided (a benefit) if the treatment program reduces recidivism. The authors develop an upper and lower estimate for these intangible costs, the lower estimate derived from the methodology used in McGurk and Hazel's South Australian study on child abuse and neglect (1998), and the higher estimate from the methodology employed in one of the US studies (Miller et al., 1996) which is discussed in the section on international studies.

The study is able to calculate the net benefit, loss, and 'break even' point for in-prison, cognitive behavioural sex offender treatment programs, depending on the 'monetary value placed upon intangible costs of child sexual abuse and the efficacy of the treatment program.' (Shanahan & Donato, 2001, p. 551) This study provides a valuable guide to the data which would be required to conduct such a study with respect to domestic violence intervention programs, such as perpetrator treatment.

The other issue tackled in this study is the methodology for placing a monetary value on the costs of victim pain and suffering which would be avoided if the treatment program reduces recidivism.



# International literature

## > Introduction

The literature search identified publications on the economic costs of domestic violence from Switzerland, the United States of America, Canada, the United Kingdom, Chile, Nicaragua and New Zealand. A number of other studies that discuss domestic violence as one aspect of their research into economic costs of violence were also identified and are included in the review.

In common with the Australian literature, the international literature argues the value and place of an economic perspective on domestic violence. For example:

*This perspective views violence against women as an economic issue [and it] does not disagree with earlier perspectives. Rather, it provides another, quite powerful angle, from which to view the legal, health and other consequences resulting from male violence and to argue for social policies to improve the services and protection for victims of male violence. (Yodanis & Godenzi, 1999a, p.1)*

## > Overview of international studies

### Switzerland

Yodanis and Godenzi report the findings of the first of a three phase research study into the economic costs of violence against women in Switzerland (1999b). The first phase involved calculating the costs to government at federal, canton and local government levels of violence against women. Violence against women was defined as 'physical, sexual and psychological abuse which is perpetrated by men on women or girls as a result of their gender.' (Yodanis & Godenzi, 1999b, p. 2) However, their methodology appears to focus on these forms of violence within intimate relationships. They use an incidence rate of 11.3 per cent, based on the findings of a 1994 survey using a nationally representative sample of 1,500 women aged 20-62.

Yodanis and Godenzi conclude that domestic violence costs the Swiss government 400 million Swiss francs, or US\$290 million each year 'based on the lowest, reasonable prevalence rates and cost figures.' (Yodanis & Godenzi, 1999b, p. 13) The authors include mainly direct or tangible costs in the calculations. Data was collected pertaining to the costs of medical treatment (physician care, hospital care and medication); police and justice (police, courts and prison); victim-related support (public assistance and victim assistance); support and counselling (hotlines and shelters); and research. They found that the most expensive categories of costs were (in descending order) police, physicians, courts and public assistance. The categories of victim assistance, shelters and research attracted the lowest costs.

The second and the third phases of this research are currently being undertaken. The second phase will investigate costs of male violence to business while the third will focus on costs to victims, family, friends, volunteers, service providers, and taxpayers.

### United States of America

#### ***Estimating the costs of victim pain and suffering (indirect/intangible costs)***

A study undertaken by Miller, Cohen and Wiersema (1996) for the National Institute of Justice provides important information for those attempting to calculate the economic costs of domestic violence. This research report 'documents the results of a 2-year multi-disciplinary research effort to estimate the costs and consequences of personal crime for Americans.' (Miller et al., 1996, p. 1). Child abuse and domestic violence are included among the personal crimes studied, although obtaining accurate incidence figures for these types of 'hidden' and under-reported crimes was a problem encountered in the study and the subject of a strong recommendation for future research.



This study differs from most others identified in the literature search in two important respects. Firstly, its focus is on the costs incurred by *victims*, rather than on the costs of society's response to victimisation – the focus of most other studies reviewed here. Secondly, in estimating costs to victims, it not only addresses those costs which are tangible, such as out of pocket expenses (eg medical expenses and property losses) but also tackles the thorny issue of attaching monetary value to 'nonmonetary losses – such as fear, pain, suffering and lost quality of life.' (p. 9) This stands in sharp contrast to other reviewed studies, including the Australian domestic violence studies, which have not attempted to quantify these intangible costs, and which have, in the main, attempted to include them through the use of qualitative data. Estimated annual victim losses from domestic violence were estimated to be US\$67 billion (Laurence & Spalter-Roth, 1996).

Miller, Cohen and Wiersema argue that failing to include these *intangible (indirect)* victim costs of pain, suffering and lost quality of life leads to gross underestimates of the costs of personal crime. For example, they calculate that personal crime (fatal crime, child abuse, adult rape and sexual assault, other assault, robbery, drunk driving, arson, larceny, burglary and motor vehicle theft) costs US\$105 billion annually in medical costs, lost earning and victim assistance programs. However, including the costs of victims' pain and suffering increases this cost to US\$405 billion annually. For crimes of violence, 'intangible pain, suffering and lost quality of life exceed all other tangible categories combined.' (p. 15). The authors reach this conclusion despite having to omit from their calculations some victim costs because of the lack of data. Major omissions included long-term effects on victim earning capacity arising from psychological injury caused by domestic violence and what they term "second generation costs", or crimes committed by people who were themselves victimised, for example through child abuse and neglect. Inclusion of such costs would therefore increase the costs of domestic violence, given the qualitative data available about the impact of domestic violence on women's workforce participation, and the links between domestic violence and child abuse and neglect.

Miller, Cohen and Wiersema argue that: 'This study highlights the importance of explicitly considering crime victim's pain, suffering, and lost quality of life when analyzing public policy.' They go on to give an example of the pitfalls for public policy of failing to take into account these intangible costs:

*Ignoring nonmonetary benefits of crime reduction can lead to a misallocation of resources. For example, suppose that an additional year of incarceration for a rape offender would prevent one additional rape incident. Considering only tangible, out-of-pocket expenses, the average rape (or attempted rape) costs \$5,100—less than the \$15,000-\$20,000 annual cost of a prison cell. The bulk of these expenses are medical and mental health care costs to victims. However, if rape's effect on the victims' quality of life is quantified, the average rape costs \$87,000—many times greater than the cost of prison. (Miller et al., 1996, p. 1)*

In estimating the monetary value of lost quality of life due to fatal crime, the authors used the mean estimate from a literature review. For nonfatal injuries:

*The research team estimated values of pain, suffering, fear and lost quality of life by analysing jury awards to crime victims...This study ignored jury awards for punitive damages and instead focused solely on that portion of the jury verdict designated to "compensate" the victim for pain, suffering, and lost quality of life. Since cases brought to trial are not necessarily representative of crime cases, the researchers could not apply the pain and suffering estimates directly. Instead, they estimated the functional relationship between out-of-pocket costs of crime (lost wages and medical expenses); characteristics of the victim (age, sex, work status etc); severity of injury (body part, hospitalization, etc); and the jury's award for pain and suffering. This functional relationship was then applied to the actual distribution of crime victims in the project's data set. In this manner, the researchers were able to estimate what the average jury award for pain and suffering would be for the typical crime in the project's data set. (Miller et al., 1996, p. 15)*

Other findings from this crime study which are pertinent to efforts to quantify the costs of domestic violence are that violence against children (primarily committed within family contexts) accounts for over 35 per cent of all crime costs, including pain and suffering and lost quality of life. Excluding the costs of treatment for perpetrators of violence, it was estimated that between 10 and 20 per cent of mental health care expenditure in the USA is attributable to crime, primarily to victims seeking treatment because of abuse experienced in childhood. These are important



**The study found that younger women and non white women were at higher risk of becoming victims of physical violence.**

findings to consider in estimating the costs of domestic violence because of the increased risk of direct victimisation of children in families in which domestic violence is occurring, and the mental health impacts on children of living with violence

### ***Health sector***

In the conclusion to their study, Miller, Cohen and Wiersema note that the health care system captured more 'victimisations' than the National Crime Victimization Survey (NCVS), the US government's 'main source of data about criminal victimization' (p. 2). The next US study reviewed (Rudman & Davey, 2000) was conducted within the health sector. It sought to estimate the prevalence and costs of domestic violence from inpatient hospital

data representing 904 hospitals in 19 states – 20 per cent of all inpatient hospital discharges. From medical records data the study sought to:

- > Identify the underlying reason for hospital admission
- > Identify the consequences of domestic violence in terms of cost and length of stay (ALOS)
- > Provide demographic data to assist health care workers to better identify victims of domestic violence.

The study found that identifying domestic violence patients on the basis of injuries is a difficult task as the injuries ranged from broken bones and bruises to mental illness. For females, 93.2 per cent of the study population, mental disorder, trauma and pregnancy complications comprised over two thirds of identified cases of domestic violence. The average length of stay was found to be 5.6 days, with an average total charge of \$8,159.81 and an average daily charge of \$2,147.54

The study found that younger women and non white women were at higher risk of becoming victims of physical violence. It also noted that the lack of information and coding of domestic violence by healthcare workers was a major impediment in obtaining accurate information on the costs of violence.

Also addressing costs in the health sector, Finlayson et al. (1999) point out that cost studies which focus on inpatient costs will exclude costs associated with health care by many victims of domestic violence because costs associated with outpatient and clinic treatment are excluded from such studies. In common with Rudman and Davey (2000), they identify the problems associated with identifying victims of domestic violence on the basis of specific medical diagnoses or trauma, given the diverse impacts of domestic violence and the fact that medical records will include details of injuries but not the context in which they occurred. Further, they point out that women experiencing violence in their intimate relationships may require health services repeatedly over time. Costings of individual episodes of domestic violence may underestimate the cumulative health costs associated with domestic violence. Hence they suggest that 'researchers must consider the overall pattern of service utilization related to intimate violence when calculating its effects.' (p. 328) They outline a five step methodology for estimating hospital costs of intimate violence, using hospital based violence prevention programs to identify victims.

### ***A methodology for calculating aggregate costs of domestic violence***

Laurence and Spalter-Roth (1996, p. 3) report the outcome of a project which aimed to: 'develop an economic model for measuring the direct and indirect costs of domestic violence to society and for assessing the cost-effectiveness<sup>9</sup> of interventions.' Their focus is on the institutional prevalence and direct costs in the health care, child well being, employment, homelessness, criminal justice and social services sectors. They also review research on some of the indirect costs of domestic violence such as absenteeism and lost productivity. Their model does not include the costs of the long-term impacts of children's exposure to violence or of the intergenerational transfer of violence.

Using a prevalence-based approach, they outline a formula for determining the annual aggregate costs of domestic violence, expressed in the equation:



$TC_{dv} = \sum p_i C_i$  where  $TC_{dv}$  is the direct total cost of domestic violence against women,  $p_i$  is the proportion of those who use service  $i$  who are victims or perpetrators of domestic violence, and  $C_i$  is the cost of service  $i$ . The costs are summed across all services, from  $i = 1$  through  $n$ . (Laurence & Spalter-Roth, 1996, p. 16)

Laurence and Spalter-Roth define direct costs as 'the value of goods and services used in treating or preventing domestic violence', and indirect costs as 'the value of goods and services lost because of domestic violence' (1996, p. 9). Included in direct costs are the following:

- > Health costs: Emergency room care, hospitalisation, initial or follow-up care at clinic or doctor's office, nursing home care, dental care, mental health care, costs of treatment for sexually transmitted diseases, pregnancy complications and birth defects, alcohol and drug abuse treatment
- > Child well-being: child protective services, special education, teen pregnancy, positive toxicology infants
- > Housing: emergency shelters and supported housing
- > Criminal justice: police time – arrests and responding to calls, prison and detention costs, probation and parole costs, prosecution, criminal court, civil or family court and juvenile court
- > Social services: domestic violence prevention/education, counselling, job training, advocacy program costs and training costs (Laurence & Spalter-Roth, 1996, pp. 10-11)

They developed a template in which, for each identified service component of health care, child well-being, homelessness, criminal justice system and social services, available data on service usage and service costs is identified. This provides the data for inclusion in the formula for calculating the aggregate direct costs of domestic violence. It also highlights the areas in which the relevant data is not available, which provides a guide to future research required to provide the data for use in calculating the costs of domestic violence.

Laurence and Spalter-Roth also include in their model some of the *indirect* economic costs of domestic violence: the costs of lost productivity and the cost of mortality. A similar template is developed for each of the following indirect costs:

- > job loss,
- > lost production of women prevented from working by partner,
- > unemployment,
- > poor work habits (coming in late, decreased productivity),
- > disruption at the work place by the batterer,
- > lost production from work for court appearances or other appointments,
- > lost home production for medical or other reasons,
- > lost promotion/advancement,
- > lost production from incarceration;
- > mortality. (Laurence & Spalter-Roth, 1996, p. 12)

For each of these components, sources of data on the number affected and the loss (indirect cost) is entered into the template. Again, gaps in data required to calculate costs, are highlighted.

These authors argue, with respect to indirect social and psychological costs, that 'without measurement of social costs, any cost estimate of domestic violence will be underestimated.' (Laurence & Spalter-Roth, 1996, pp. 29-30). They note that most studies address this issue by providing descriptive data on women's experience of violence, and refer to the pioneering work by Miller, Cohen and Wiersema (described above) to try to monetise these costs.



## United Kingdom

A recent review for the UK Crime Reduction Research (Crisp & Stanko, 2000) noted that little work has been done in the UK to examine the financial implications of domestic violence. One study was identified in the literature search (Stanko, 2000; Stanko et al., 1998). It aimed to:

1. Approximate the costs of domestic violence in one local authority (the London Borough of Hackney), with an eye to the consequences and costs of domestic violence to children
2. Examine the public provision of services for domestic violence through the pathways of victims' requests for help
3. Estimate the prevalence of domestic violence in the local authority
4. Recommend ways forward to improve strategies for public intervention in domestic violence to better disrupt its longer term damage (Stanko et al., 1998, p. 5)

The methodology was multifaceted and included:

- > an agency postal survey, asking whether agencies were able to estimate the costs of providing advice and service to women experiencing domestic violence.
- > record searches involving trawling through agency files and records to find the proportion of cases involving domestic violence
- > a survey of 129 women in one General Practitioner's waiting room
- > composite case studies generated from key agencies' records
- > feedback sessions with service providers (p. 6)

The researchers examined the records of key agencies – police, housing, and social services (includes child protection services) – to estimate the proportion of cases which involve women's search for assistance in dealing with domestic violence. This part of the study found similar prevalence rates of domestic violence for women in Hackney using each of these three public services (one in fifteen, one in sixteen and one in eighteen). The survey of women in the GP surgery found that one in nine reported violence serious enough to require medical care in the past year. The authors based calculation of costs on the one in nine prevalence rate, with the rationale that rates found from agency data will be low, and that not all women who experience violence use public agencies (as found in other research).

The study calculated *selected costs* to the public sector for domestic violence in Hackney to be over £5 million for the year 1996. The largest component of these costs, are those incurred by social services (£2.3 million) and civil justice (£1 million). Since the agencies surveyed in this study represent about two thirds of those used by women experiencing violence, the authors estimate that the total costs of providing assistance, support and advice would be approximately £7.5 million (Stanko et al., 1998).

This study is unique in its focus on one local government area. It is grounded in the issue of responsibility:

*This research highlights the need for all the agencies covered in the study to share (that) responsibility. Women who are victims of domestic violence seek help from a range of agencies and the research highlights the economic costs to those agencies of providing the service. It is imperative that the agencies "get it right" both for the sake of individual women and children who require assistance, and for the public at large who pay for the service. (Stanko et al., 1998, p. 3)*

An advantage of a local focus to this 'costs' research is that the research in itself can become an impetus for change in the ways in which services are delivered. Previous research about women's help seeking was used in developing the methodology. The inclusion of feedback sessions with the agencies in the survey reflects the researchers' commitment to facilitating this type of change. The authors do not seek to monetise the intangible costs of violence, and in fact argue against such an approach:



*Costs refer to a totality – the detrimental impact, psychological, social and/or economic, for individuals and society as a whole, of domestic violence. We must not substitute, or privilege, the monetary costs above psychological and social consequences. (Stanko et al., 1998, p. 25)*

## Canada

The Centre for Research on Violence Against Women and Children in Ontario has conducted a number of studies on economic costs of domestic violence. The first study examined the health related and total costs of violence against women, while the second study examined a broader range of costs resulting from criminal violence against women. The first study estimated that a total of more than C\$1.5 billion is spent on health related costs of domestic violence every year. This includes C\$255 million in medical consultations, and C\$506 million in short and long-term psychiatric care (Day, 1995 cited in National Crime Prevention Centre, 1996).

The second study (Greaves, Hankivsky and Kingston-Riechers 1995 in National Crime Prevention Centre, 1996) estimated costs of three forms of violence against women; 'sexual assault/rape; woman abuse in intimate partnerships and incest/child sexual assault'. Economic costs of these forms of violence are estimated in relation to four policy areas; 'health/medicine, criminal justice, services/education and labour/employment'. By combining a range of methods (which did not calculate cost of pain and suffering), the report distinguishes between state, personal and third party costs of violence against women. It estimated the total costs of violence against women at C\$4.2 billion annually. Social services and education represented C\$2.4 billion of this cost, followed by criminal justice at C\$872 million, women's labour and employment losses at C\$577 million and health and medical costs at \$408 million. Thus social supports represented 55.8% of costs; health and medical costs 9.3%; criminal justice costs, 20.9%; and labour and employment costs, 14.0% (National Crime Prevention Centre, 1996, p. 2). The state was found to bear 87.5% of these costs, the individual, 11.5% and third parties, 0.9% (National Crime Prevention Centre, 1996)

In the same year, Kerr and McLean (1996) produced a report that aimed to estimate economic costs of domestic violence in British Columbia, the province with the highest reported incidence of violence against women in Canada. The project provides monetary value of tangible costs, and lost time of work from intangible costs, but falls short of providing a monetary value for costs such as psychological suffering:

*This project quantifies some (of these) financial costs, but in no way can we "cost" the horrifying physical and psychological damage of this violence to the women and their children. (Kerr & McLean, 1996, p. 3)*

Apart from quantitative findings, the report also provides a qualitative account of the type, nature and impact of violence on women's lives. In terms of quantitative findings, estimated costs of policing, corrections, criminal injury compensation, victim assistance programs, counselling for women, aboriginal programs, mental and drug related care, income assistance, sexual and women assault centres, women's loss of work time, programs for children who witness violence and treatment programs for assaultive men come to C\$385 million. The majority of these costs involve income assistance which costs C\$161 million per annum. The second largest component of these costs is women's loss of work time at C\$54 million. Provincial Ministries and Statistics Canada were the main sources of data.

The authors state that the cost estimate is significantly less than the real economic costs of domestic violence for the following reasons:

- > Male violence against women is under-reported by women, institutions and their personnel
- > The estimate does not include pre-natal damage due to abuse of women during pregnancy (trauma to the woman or her substance abuse brought on by violence)
- > The long-term consequences of intergenerational transfers of violent behaviours cannot be accurately estimated
- > Most of the additional private costs incurred by women (eg legal services, housing, additional child care) are not included



- > Other costs not included are additional public expenditure on legal and court costs, tax expenditures such as child benefit, most of the long and short-term health costs, and the hidden costs to the educational system due to the effects on children who witness the violence or their mother falling into poverty (Kerr & McLean, 1996, p. 7).

## New Zealand

The Coopers and Lybrand New Zealand study (Snively, 1995) is often referred to in other international literature. Snively used the NSW study (Distaff Associates, 1991) – three stages of women who experience domestic violence and their contact with services – as a starting point, expanding on the NSW model by analysing a range of scenarios.

*A spreadsheet approach was developed to increase the usefulness and portability of results to interested parties and future researchers. The spreadsheets incorporate all the main variables, assumptions and sources of data so that interested parties and policy makers can test different assumptions both about what is a legitimate cost of family violence and about ways of measuring the costs.* (Snively, 1995, p. 99)

The ‘base scenario’ estimates direct costs assuming that the number of women acknowledging domestic violence is equivalent to the number of police callouts related to domestic violence. The second scenario or ‘five times callout scenario’ assumes that five times as many women are victims of domestic violence as those that call the police. The last or the ‘income foregone scenario’, ‘attributes the costs of labour market income foregone to work days assumed to be lost because of family violence.’ (Snively, 1995, p. 99). She then underpins these three scenarios with three estimates of the prevalence of domestic violence: 1 in 10, 1 in 7 and 1 in 4. The base scenario with 1 in 7 prevalence rate is used as the base case spreadsheet. The following table enables comparison of the costs associated with each scenario over differing prevalence rates (Snively, 1995, p. 100):

Table A: Economic costs of family violence for 1993/4 in New Zealand

	Prevalence Rate		
	1-in-10	1-in-7	1-in-4
Base Scenario	\$B1.187	\$B1.235	\$B1.352
Five times callout scenario	\$B2.691	\$B2.739	\$B2.855
Income foregone scenario	\$B3.770	\$B4.206	\$B5.302

Data was obtained from agencies involved in providing support services to survivors of violence. This data was collected in a number of forms:

- > Annual cost of providing the service;
- > Unit costs per item or service;
- > Typical pattern of service usage (a template was designed for this purpose);
- > Case studies to form template examples (Snively, 1995, p. 99)

The total costs to governments are calculated by adding the direct costs to individuals affected by violence – both stage 1& 2 from the NSW study (Distaff Associates, 1991) – to other costs to governments (health care, law, justice, welfare). The total estimated costs range from NZ\$1.187 billion for the ‘base scenario’ with a 1-in-10 prevalence rate to NZ\$5.302 billion based on the ‘income foregone’ scenario, with a 1-in-4 prevalence rate. The study concludes, that, even on the most conservative estimate:

*The results of the analysis indicate that the annual cost of family violence in New Zealand is at*





least NZ\$1.2 billion. This is more than the NZ\$1 billion earned from wool exports in 1993/1994, nearly as much as the total amount of NZ\$1.4 billion spent on unemployment benefit and around half of the NZ\$2.5 billion earned from forestry exports. (Snively, 1995, p. 98)

This New Zealand study is often mentioned in the international literature as an example of how to cost upper and lower estimates of the economic cost of domestic violence. The value of the spreadsheet model is that it can be developed and extended as further data becomes available. This study includes the effects of domestic violence on children in the total costs. However, intangible or psychological and emotional costs incurred by women as a result of violence, and the impact on children's education, are not costed in this model.

## Chile & Nicaragua

Researchers conducted sample surveys with women in Santiago (Chile) and Managua (Nicaragua) to examine the impact of domestic violence on labour force participation and earnings, health care use and children (Morrison & Orlando, 1999). These two Latin American countries were selected for the study because they are at different levels of economic development. For example, the authors note that in 1996, Chile's per capita income was seven times greater than Nicaragua's and that the secondary school participation rate is much lower in Nicaragua than in Chile.

In the Santiago survey, 40 per cent of a stratified random sample of 310 women aged 15 to 49 experienced domestic violence (defined as physical, sexual or psychological violence). In Managua, 52 per cent of the sample of 378 women experienced domestic violence.

In relation to workforce participation, abused women in Santiago were less likely to work outside the home, while in Managua, they were more likely to work outside the home. With respect to earnings:

*Domestic violence had large effects on women's earnings in both Santiago and Managua. In Santiago, women who suffer severe physical violence<sup>10</sup> earn only 39 percent as much as women who do not suffer this abuse; in Managua, the percentage is 57 percent. The costs to the two countries' economies are immense: all types of domestic violence reduce women's earning by 1.56 billion in Chile (more than 2 percent of 1996 GDP) and by 29.5 million in Nicaragua (about 1.6 percent of GDP). These losses are just the first-round effects, because each dollar in lost earnings will lead to a further decline in GDP through multiplier effects. (Morrison & Orlando, 1999, p. 66)*

Differences between the countries emerged in findings about the impact of domestic violence on health care utilisation, and its associated costs. In Nicaragua, abused women were found to use health services twice as frequently as nonabused women, but no association between domestic violence and health service utilisation was found in Chile.

The study used three measures to try to identify the impact of domestic violence on children: whether the child repeated a grade, academic problems and discipline problems. Impacts on children's educational attainment due to domestic violence are thought to impact on children's future life chances and thus reflect the intergenerational transmission of violence. In Chile (but not in Nicaragua), children of abused women were found to be significantly more likely to display disciplinary problems at school than were children who were not living with domestic violence.

## Other economic impacts of abuse identified in the international literature

The 1996 British Crime Survey reported that 26% of women have been assaulted or have received frightening threats at some point during their lifetime. Comparing the extent and nature of assaults on women and men, the survey also found that female victims are more likely to be injured; to use medical services; spend time in hospital; and take time off paid and unpaid work (Johnson & Pottie Bunge, 2001).

Women who have experienced domestic violence are more likely to be in receipt of public assistance (Lloyd, 1997) and to suffer from low-self esteem, depression, anxiety, anger and other behaviours associated with post-traumatic stress disorder (Sachs, 1999, p. 2). Domestic violence also impacts on women's ability to access medical and health care services. For example, a 1994



informal survey of the USA's largest insurance companies which represented 50 per cent of the insurance market found that half of the companies used domestic violence as a factor when making decisions about issuing policies and setting premiums. 'Some insurance companies refuse to cover claims resulting from domestic violence on the theory that injuries are a result of a pre-existing condition.' (Morrison, 1996)

**The World Bank, in 1996, found that women in developing countries lose 1-5 years of life as a result of violence directed against them.**

The World Bank, in 1996, found that women in developing countries lose 1-5 years of life as a result of violence directed against them. Raped or beaten women had medical costs that were two and a half times higher than those women who were not victimised (Artz, 2001, p.1).

Research in the UK suggests that 'debts incurred during the violent relationship when women have little or no control over finances and other costs all contribute to women's experience of poverty.' (Wilcox, 2000, p. 176)

In the United States, Lloyd (1997) undertook standardised interviews with a random survey of 824 English and Spanish-speaking women living in a low income neighbourhood to

explore the impact of domestic violence on women's labour force participation. The study also included 24 in-depth interviews. Eighteen per cent of the sample reported having experienced physical aggression and 11.9 per cent reported having experienced severe physical aggression in the past twelve months. Life-time prevalence for the sample was 40.3 per cent for physical aggression and 28.4 per cent for severe aggression. Contrary to what might be expected, women who had experienced domestic violence, either in their lifetime or in the last 12 months, were not found to differ significantly in employment status from women who had not experienced this type of violence. Nor were differences found with respect to absences from work or work-limiting disabilities. However, those who reported having experienced domestic violence were more likely to have been unemployed, to suffer from a range of physical and mental health problems that can affect employability and job performance, and to have lower incomes and greater reliance on public assistance. Lloyd suggest that:

*...women's experience of male violence and coercion may influence women's labor market experiences over time, rather than their labor force participation at any moment in time. Current employment status appears unaffected by women's varying experiences of male aggression in intimate relationships. However, human capital characteristics (such as physical and psychological health) that influence employability and job performance, and wage income and past unemployment do appear to be significantly affected (Lloyd, 1997, p. 156)*

Bringing together the survey data and data from the in-depth interviews, Lloyd is able to tease out the complexities which she terms the "multiple associations" between domestic violence and women's labour force participation. For some women, the experience of violence decreases participation, while for others, the experience of violence increases it. She concludes: 'These are not competing explanations. Rather, they probably reflect the differences among women in the ways they respond to the possibility or experience of male violence, as well as differences among women in the kinds of resources they can bring to bear on their circumstances.' (Lloyd, 1997, p. 161) She then teases out the policy responses required to respond 'in nuanced ways to women's needs' (p. 162). This is relevant to welfare reform where some women may require exemption from work/study requirements because of the impact of violence in their lives, and this group of women may need access to welfare benefits to avoid or escape abusive relationships. Others may benefit from training programs and support to gain economic independence which is often the key to women's capacity to escape violent relationships. This is an example of the growing literature (e.g. Brandwein & Filiano, 2000; Brush, 2000) which explores the complex interrelationships between welfare reform and domestic violence and the potential obstacles and resources which women may encounter as they attempt to deal with domestic violence within this context.

In common with the Australian literature, the International literature emphasises the detrimental effects of domestic violence on the lives of children. This literature reports the negative effects for children both as 'witnesses' and because of the heightened risk of direct abuse for children who live with domestic violence. For example:



*Children who witness wife abuse are at risk of being assaulted themselves and of developing adjustment problems during childhood and adolescence. (Heise, Pitanguy, & Germain, 1994, p. 28)*

*The American Humane Association reports that there is a growing body of research pointing to a definite link between domestic violence and child abuse. Of battered women in shelters, 45-70% report that their batterers have also engaged in some form of child abuse. They report that child abuse is 15 times more likely to occur in households where adult domestic violence is present. (Colorado Children's Trust Fund, 1995, p. 8)*

Much of the literature also discusses the long-term psychological impacts of abuse and witnessing violence on children and the risks of the intergenerational transmission of the effects of domestic violence (e.g. Morrison & Orlando, 1999). Preliminary estimates provided by Miller, Cohen and Wiersema (1996, p. 25) suggest that 13% of all violence can be linked to earlier child maltreatment. Such estimates of the long term impacts of living with violence have important implications for studies which attempt to estimate the costs of domestic violence.

## > International studies on economic costs in allied areas

### Homicide

A New Zealand study (Fanslow & Norton, 1994) which used a human capital approach, estimated that the economic costs of homicide in 1992 was NZ\$83 million, comprising direct and indirect costs associated with homicide perpetrators and victims. Data about the items that should be included in final costing was obtained through literature reviews and consultations with relevant organisations, and statistics about homicides were from the New Zealand Health Information Service (Fanslow & Norton, 1994). The researchers assessed direct costs using information on incidence and costs from government agencies. Indirect costs were assessed based on loss of productivity resulting from death and were calculated for victims and for perpetrators. Calculations of years of working life lost included an age distribution to account for groups such as perpetrators and victims under 15 and over 65 who were unlikely to have worked.

The methodology used to calculate costs of loss productivity resembles that found in domestic violence studies, except for the fact that costs are calculated for victims and perpetrators, whereas domestic violence studies primarily focus on victims. In addition to this, intangible costs include only lost productivity, and are unable to account for items such as the loss of educational investment 'associated with the premature loss of life, although an implicit estimation of this was reflected in the average wage used.' (Fanslow, Miller, & Norton, 1997, p. 975) A benefit of this study for research in allied areas is its human capital approach which is useful in estimating indirect costs as it places a monetary value on victim's lives.

### Child abuse

A USA benefit-cost study on child abuse looked at the costs of failure, i.e. costs incurred by the state of Colorado for failing to prevent child abuse and neglect. These costs are compared with the savings which would accrue from an investment in an effective child maltreatment prevention program (Colorado Children's Trust Fund, 1995, p.1). Researchers also built on previous studies' approaches to estimating indirect costs, as they included costs that don't appear in the child welfare budget, such as 'substance abuse treatment programs, income maintenance program, medical assistance, job training, prisons and police.' (Colorado Children's Trust Fund, 1995, p.1) Another study (Caldwell, 1992) investigated costs related to child maltreatment and its consequences, comparing the costs of child maltreatment prevention services to all first time parents. The study estimated annual costs of child abuse to be US\$823 million, whereas the costs of prevention programming were estimated at US\$43 million annually, yielding a cost advantage of 19 to 1 for prevention (National Clearinghouse on Child Abuse and Neglect Information, 2001).



## Crime

Washington State Institute for Public Policy (Aos, Phipps, Barnoski, & Lieb, 2001) reviewed evaluations of a wide range of programs that try to reduce crime in Canada and the USA. In comparison to other studies which estimate the aggregate economic cost of a crime/social problem, Aos et al. (2001) tried to determine whether benefits of programs – ranging from prevention programs for young children, to correctional programs for juvenile and adult offenders – as measured by the value to taxpayers and crime victims, can outweigh the costs of the program. Their methodology included an extensive literature review, with special focus on crime in the last 25 years. This cost-benefit review of research in the area of personal violence concluded that in the last two decades, research on what works and what doesn't has developed, both in qualitative and quantitative data. In the authors' view, this data should be used for better allocation of resources.

In 1998, the Canadian government launched the 'National Strategy on Community Safety and Crime Prevention'. Under this strategy, the aims of the research and development component are:

*...to evaluate as "rigorously as possible" community-based, social development program approaches to the prevention of crime and victimisation. The priority is high-need, low-resource communities. The main goal...is to establish reliable information on what works and what is promising in reducing the risk factors and costs associated with crime and victimization.* (Hornick et al., 2000, p. 1)

In order to facilitate this evaluation, a *Manual on Conducting Economic Analysis of Crime Prevention Programs* (Hornick et al., 2000) has been developed. Some of the programs funded under this crime prevention initiative pertain to women and violence. For example, they include an evaluation of the impact and effectiveness of community-based intervention models for children who witness violence against their mothers and an evaluation of safety planning techniques with women experiencing violence. The economic analysis of the Canadian crime prevention initiative is discussed further in the following section.



# Cost effectiveness and benefit-cost analyses

## > Introduction

All Australian domestic violence studies reviewed, and many of the international studies, can be described as 'aggregate' (Laurence & Spalter-Roth, 1996) studies – i.e. they attempt to estimate the total financial costs of domestic violence. There is now a growing body of literature which explores the benefits of applying an economic analysis to crime prevention efforts, and much of this is relevant to the field of domestic violence.

*An economic analysis can be described as a tool that allows choices to be made between alternative uses of resources or alternative distributions of services. (Knapp 1997 cited in Welsh, 2000, p. 2)*

Cost-effectiveness analysis and cost-benefit analysis are 'the most widely used techniques of economic analysis'. (Welsh, 2000, p. 3)

Cohen argues that these approaches, widely used in other fields of public policy for many years, must now be adopted by criminology:

*Cost-effectiveness, benefit-cost analysis, and placing dollar values on the intangible costs of crime have all arrived at the criminal justice policy arena and will not go away. Increased scrutiny of government spending programs, coupled with new evidence that certain targeted prevention and rehabilitation programs work, provide the impetus for new and innovative criminal justice policies and fierce debate over their merits. (Cohen, 2000, p. 306)*

## > Cost-effectiveness analysis

Laurence and Spalter-Roth point out that, while estimates of aggregate costs of domestic violence provide policy makers and the community with information on the size of the problem and the resources diverted as a result, they 'offer no guidance as to which remedies are cost effective.' (1996, p. 31)

*Cost-effectiveness studies are designed to demonstrate the relationship between project costs and outcomes, usually expressed as costs per unit of outcome achieved. (Laurence & Spalter-Roth, 1996, p. 31)*

However, in their extensive literature review, Laurence and Spalter-Roth found no examples of cost effectiveness evaluations of programs in terms of reducing the prevalence of domestic violence. They make the point that some domestic violence programs have goals other than reducing the prevalence of domestic violence. For example, programs which aim to increase identification of victims through the provision of training to health workers, are likely to increase costs in the shorter term.

Snow Jones (2000, p. 567) attempted to assist the implementation of cost-effectiveness analyses of perpetrator treatment programs by undertaking a cost analysis of four geographically and programmatically diverse batterer programs, employing 'an economist's view in measuring the opportunity costs of batterer intervention programs, rather than simply tabulating program accounting costs.' She argues that such an analysis provides 'an essential component of cost-effectiveness analysis' (p. 566) and as such this work represents a building block towards implementing a cost-effectiveness evaluation of perpetrator programs. She links this work to some of the controversy about the provision of programs for perpetrators: some oppose them on the grounds that they take scarce resources from services for women, while others argue that these



programs are relatively inexpensive, especially in view of the fact that participants often bear some program costs. She argues that:

*...it is imperative that the costs of batterer programs be evaluated in a manner that conforms to the principles of sound economic cost analysis. Only then can the relative cost and effectiveness of such programs be weighed against competing alternatives, including the possibility of forgoing batterer programs to have better battered women's services and protection.* (Snow Jones, 2000, p. 566)

Snow Jones found relatively low economic costs for perpetrator programs across the four diverse sites – US\$22 to US\$32 per session. She suggests that 'data from these analyses can be combined with effectiveness data to perform cost-effectiveness analyses.' (p. 584)

The Canadian manual on the economic analysis of crime prevention programs (Hornick et al., 2000) describes the potential of cost-effectiveness analyses:

*For example, we can use cost effectiveness analysis to determine the unit cost per family of delivering home visitors' interventions to boost healthy development of infants and school readiness of young children. Further, if outputs and outcomes of various different program interventions are measured in the same way, we can use cost effectiveness analysis to compare the relative cost effectiveness of the different interventions.* (Hornick et al., 2000, p. 9)

They provide an example of a cost effectiveness analysis of two early intervention programs in which the unit cost of one program (A) is three times that of the other program (B). However, the cost effectiveness analysis reveals that program A is twice as cost effective as Program B.

Cohen (2000) differentiates cost-effectiveness from cost-benefit analysis (discussed in the next section), in the following definition:

*Unlike benefit-cost analysis, which requires all benefits and costs to be expressed in monetary terms, cost-effectiveness analysis only requires that costs be monetized. Benefits still need to be expressed in some common denominator—such as comparable crimes, comparable injuries, lost years of life, and so forth. For example, one might compare the cost-per-life-year-saved of two different programs. Both of these methods require rigorous estimates of effectiveness—eg the number of crimes averted by the policy under consideration.* (Cohen, 2000, p. 265)

*Another way to think about how cost-benefit and cost-effectiveness analysis differ is that "cost-effectiveness analysis may help one decide among competing program models, but it cannot show that the total effect was worth the cost of the program".* (Weinrott, Jones & Howard 1982, p. 197 cited in Welsh, 2000)

Cohen provides an example of a 1996 cost-effectiveness analysis by Greenwood et al. which compared four child and youth intervention programs. 'They found that per \$1 million spent, graduation incentives prevented the largest number of serious crimes (258) followed by parent training (157), delinquent supervision (72), and home visit/daycare (11).'

 (Cohen, 2000, p. 299)

## > Benefit-cost analysis

Benefit-cost analyses are more difficult to conduct than cost-effectiveness studies as they require researchers to place a monetary value on *all costs and benefits*.

*Once both inputs and outcomes are expressed in monetary terms, then benefit/cost ratios can be calculated where the value of outcomes is divided by input costs, or the net benefit can be calculated by subtracting the sum of the input costs from the sum of the benefit costs...*(Hornick et al., 2000, p. 9)

Welsh explains how to interpret benefit-cost analyses:

*From a cost-benefit analysis, economic efficiency can be reported in the form of a cost-benefit ratio (benefits divided by costs) or net value (benefits minus costs). Interpreting these measures is straightforward: a benefit cost ratio greater than 1.0 and (for net value) a plus sign means the program is economically efficient.* (2000, p. 7)



Thus, a benefit cost analysis takes a cost effectiveness analysis one step further:

*The obvious advantage of cost benefit analysis over cost effectiveness analysis is that it permits the comparison of the cost/benefit of interventions which might have very different outcomes and target groups because the outcomes are expressed in common terms, i.e., money. (Hornick et al., 2000, p. 9)*

An example which demonstrates this advantage is a review by Miller and Levy (2000) of recent cost-benefit analyses of injury prevention and control programs. The benefit-cost ratios for eighty four programs/interventions, as diverse as violence prevention (early intervention nonoffender programs, juvenile and adult offender programs), fall prevention, road design and upgrading and safety protection devices, can be compared. Benefit-cost ratios varied considerably. For example, the benefit-cost ratio for a 'scared straight' juvenile offender program was 0.0; for a home visiting program, 4.8; and for post-mounted reflectors (a road design and upgrading measure), 102. The review found that 85% of the interventions had benefit-cost ratios greater than 1 and that half yielded net cost savings.

The Canadian 'National Strategy on Community Safety and Crime Prevention', described in the previous section (p. 44), aims to conduct an economic analysis of the programs funded. The evaluation guide aims:

1. *To provide a model for the research evaluators to carry out cost-effectiveness analysis of the programs they are evaluating; and*
2. *To provide the basis for the NCPC to carry out...a comparative cost-benefit analysis, based on the cost data and outcomes of the individual programs (Hornick et al., 2000, p. 2)*

A recent Australian Institute of Criminology publication outlines the steps in conducting a benefit-cost analysis (Barnett 1993 cited in Chisholm, 2000, p. 2):

1. *Define the scope of the analysis – Establish the range of benefits to compare and identify the limits of the comparison*
2. *Obtain estimates of program effects (comparing control and treatment groups before and after) – The benefits of a program are obtained from the effectiveness of the program*
3. *Estimate the monetary value of all costs and benefits – The central tenet of any cost-benefit analysis is the estimation of the monetary value of program effects.*
4. *Calculate the present value and assess profitability – Account for inflation and the time value of money by discounting the stream of all costs and benefits over time using the social discount rate*
5. *Describe and incorporate the distribution of costs and benefits – Although a positive net present value tells us that the program was profitable for society as a whole, it reveals nothing about who gains and loses.*
6. *Conduct sensitivity analysis – Estimating the costs of benefits of a crime prevention program relies upon certain assumptions, for example the effectiveness of the program and the cost of crime. Sensitivity analysis alters these assumption and tests whether or not the program is still cost-beneficial.*

While this may seem a very straight forward process, many authors caution that this is very far from the case. For example, Cohen cautions:

*Like any statistical tool, benefit-cost analysis is vulnerable to misapplication through carelessness, inexperience, or deception. The technique is sometimes criticised because it presents an aura of precision and objectivity that might not be justified. The results can be no more precise than the assumptions and evaluations that are employed. Thus, it is important that the analyst carefully*

Like any statistical tool, benefit-cost analysis is vulnerable to misapplication through carelessness, inexperience, or deception.



The use of jury awards for compensation is an example of one of two methods used to place a monetary value on the intangible costs of pain and suffering...

*spell out the assumptions, the basis for those assumptions, the projected benefits, how those benefits are valued, and how alternative assumptions might affect the results...*(Cohen, 2000, p. 303)

Several challenges are involved in conducting cost-benefit analyses. Most importantly, a benefit-cost analysis must be based on a rigorous program evaluation (Chisholm, 2000; Hornick et al., 2000), a point emphasised by Welsh (2000, p. 4):

*In practical terms, an economic analysis of the efficiency of a program is an extension of an outcome evaluation, and is only as defensible as the evaluation upon which it is based.*

Some argue that economic analyses can only be conducted when an 'experimental or strong quasi-experimental design' has been used in the evaluation (Weimer and Friedman 1979 cited in

Welsh, 2000, p. 4). However, in implementing crime prevention and other social programs, there are many barriers to employing rigorous, experimental designs in evaluations. In the domestic violence field, for example, Gondolf (2001) has outlined some of the political and legal constraints which may preclude random allocation of perpetrators to treatment and control groups.

A further challenge lies in the fact that a benefit-cost analysis may involve placing a monetary value on intangible costs (Cohen, 2000). The jury award method of assessing intangible costs of pain and suffering was discussed earlier (Miller et al., 1996). This approach, however, is controversial (Cohen, 2000; Welsh, 2000). Cohen points out that this need not be an insurmountable obstacle in cases where a program passes a benefit-cost test using only tangible costs, since in this situation, the need for monetising intangible losses is less obvious. 'For example Prentky and Burgess (1990) show that the cost of incarcerated sex offender treatment is less than the tangible benefits from lower recidivism rates...No intangible benefits need to be estimated because the program already passes a benefit-cost test'. (Cohen, 2000, p. 301)

The use of jury awards for compensation is an example of one of two methods used to place a monetary value on the intangible costs of pain and suffering, the "revealed preference" method:

*The "revealed preference" method involves observing individual behaviour in the market place and using these observations as "proxy" value for benefits. For example, people trade off income against risks to life and health when they accept "danger money" or a wage premium for undertaking a hazardous job...*(Shanahan & Donato, 2001, p. 547)

The other method of estimating the monetary value of intangible costs is termed "contingent valuation". "This technique is not based on actual decisions but involves the use of surveys or questionnaires where individuals are asked to value hypothetical events.' (Shanahan & Donato, 2001, p. 548)

A number of examples of benefit-cost analyses are cited in the literature to demonstrate the value of this methodological approach. The Elmira (New York) Prenatal/Early Infancy Project of David Olds and associates (cited in Welsh, 2000) will be discussed here because prevention of child abuse and neglect is one of its aims, and some recent findings highlight issues for domestic violence research and intervention. The study involved 400 disadvantaged pregnant women randomly assigned to routine perinatal care (control group) or routine care plus home nursing visits through pregnancy and up until the child's second birthday. The findings from this study have been widely disseminated and have been very influential in policy development because:

*A 15-year follow-up study of the Elmira trial families...provided the first evidence from a randomized trial for the long-term effects of home visitation on reducing child maltreatment. Results from the long-term follow-up showed that nurse visited families had half as many child maltreatment reports as families in the comparison group.* (Eckenrode et al., 2000, p.1388)

Because of its rigorous evaluation using an experimental design, several benefit-cost analyses of this program have been undertaken. Welsh (2000) cites a benefit-cost analysis by Olds and associ-





ates in 1993, two years after the program or when the children were four years old. It found that 'for the higher risk mothers, program benefits slightly outweighed costs, for a benefit-cost ratio of 1.06. For the whole sample (higher and lower risk mothers), program costs exceeded benefits, resulting in an undesirable benefit-cost ratio of 0.51.' (Welsh, 2000, p. 8) He also cites a benefit-cost analysis by Karoly et al. 13 years post-intervention which measured program effects on the children's delinquency and mother's life course development. It found a benefit-cost ratio of 4.06 for the higher risk group but an unfavourable ratio of 0.62 for the lower risk sample.

A recent publication by the Olds team (Eckenrode et al., 2000) sought to discover whether the presence of domestic violence limited the effects of home nurse visitation in reducing substantiated reports of child abuse and neglect. This study found that the presence of domestic violence does have a negative impact on the ability of home-visitation schemes to achieve their targeted outcomes. 'For mothers who received visits through the child's second birthday, the treatment effect decreased as the level of domestic violence increased.' (Eckenrode et al., 2000, p. 1385) This points to the importance of taking into account the overlap of domestic violence and child abuse in research into the costs of domestic violence.

The international literature search identified one benefit-cost analysis specific to domestic violence. This is social cost-benefit study of domestic violence shelter services in Kingman, Arizona (Chanley & Chanley, 1999; Chanley et al., 2001). It calculated the total costs by adding operational, social justice, public assistance and productivity costs. To calculate benefits, the researchers obtained information on injuries averted and mental health benefits (estimating the value based on community's willingness to pay for this service). The analysis found that:

*The total social benefits of the program exceed total social costs for both lower and upper estimates of these values. The net annual social benefit for the lower estimates is \$3,800,389, and the net annual social benefit for the upper estimates is \$16,695,397....the program has substantial net benefits even comparing the lower estimate of benefits with the upper estimate of costs. Comparing these estimates, the program has a conservative annual net social value of \$3,494,934.* (Chanley et al., 2001, p. 405)

The authors also computed the cost-benefit ratio for the shelter program: this ranged from 6:8 to 18:4, depending on whether the upper or lower cost estimates were used. 'This means that for every \$1 invested in the shelter program, between \$6.80 and \$18.40 of social value is returned.' (p. 405) Chanley and Chanley note that this analysis is of immediate, short-term social costs and benefits. They describe the longer term community benefits of the shelter service and its activities as an agent of social change, but do not monetise these. They propose their analysis as a model for evaluating other social services and conclude:

*We hope that our results will assist domestic violence policy advocates and decision makers in understanding the significant value of even small domestic violence shelters, even if shelters are used only as places of temporary refuge by battered women and their children.* (Chanley et al., 2001, p. 411)

Clark, Biddle and Martin (2002) have recently undertaken a cost-benefit analysis of the 1994 United States Violence Against Women Act (VAWA-I). This federal legislation: '...provided \$1.6 billion over 5 years to increase penalties for perpetrators and improve resources for police, prosecutors, and victim service providers' (p. 418). The study aimed to identify the net social benefits of this legislation. To estimate costs, the authors used data from the Miller, Cohen and Wiersema (1996) study, discussed in detail earlier in this review, adjusted to 1998 values. Annual rates of criminal victimisation – fatal assault, nonfatal rape or sexual assault and nonfatal assault – were obtained from a National Institute of Justice report, comparing the period before (1992-93) and after (1996) the implementation of VAWA-I programs. Three assumptions were made in the analysis (p. 422):

1. Only costs accrued in the year after victimisation were included. The authors note that this resulted in a conservative estimate of costs.
2. All reductions in criminal victimisation of women after the introduction of VAWA-I were attributed to the VAWA-I program



3. Both tangible and non-tangible costs were included. (As noted in the earlier discussion, the Miller, Cohen and Wiersema study (1996) is one of the few studies to include estimates of the costs of victims' pain and suffering.)

On the basis of their cost-benefit analysis, Clark, Biddle and Martin (2002, p. 423) conclude:

*The net benefit of VAWA-I is estimated to be \$16.4 billion. Because the cost of VAWA-I is only \$1.6 billion, \$14.8 billion in averted victimization costs would be saved after implementation of VAWA-I. On the individual level, VAWA-I is estimated to cost \$15.50 per U.S. woman and would be expected to save \$159 per U.S. woman in averted costs of criminal victimization.*

As the authors note, the most problematic assumption in their analysis is the attribution of all reductions in criminal victimisation of women to the implementation of programs funded under this legislation. They make a number of suggestions for future studies. In common with most of the literature in this review, they point out the need for improved estimates of the incidence of violence against women, noting that if rates of victimisation are higher than those used in the analysis (and this is likely, given the hidden nature of much violence against women), the cost-benefit of this legislative program may be smaller than estimated. A further suggestion is made for research which attempts to identify which parts of the legislation have the greatest impact on reducing violence against women.



# Recommendations in the literature

## > Australia

In general, the Australian literature offers very few recommendations in relation to studies on the economic costs of domestic violence. Rather, the recommendations are related to the field of domestic violence in general, and are now rather dated, given the developments which have occurred in the field in recent years. Due to the relatively short history of studies on economic costs of domestic violence, most studies suggest further research into the area.

The first study into economic costs of domestic violence (Roberts, 1988) offered very specific recommendations about the improvement of services and policies aimed at reducing and eliminating domestic violence. Based on the findings from her study which indicated high economic costs of domestic violence, she suggests that investment in preventive services should be escalated. Also recommended is further research: for large-scale representative studies to determine more accurately the extent of the problem in Australia; the cost effectiveness of the currently provided services; and costs to society for care and treatment of perpetrators.

The lack of data on which to base cost estimates is a common theme in the literature. For example, the NSW study (Distaff Associates, 1991, p. 30) identifies the following indirect costs to the community which could not be included in the study, because data was not available:

- > costs of the impact on children of witnessing domestic violence, including the impact on their development of views about relationships between adults and about parenting
- > costs of constant abuse and undermining of women
- > costs of creating a society where women are expected to take up opportunities in the public sphere when many are under duress in private
- > costs of physical and mental disabilities due to domestic violence

Another significant recommendation of many studies is that businesses should take on a more prominent role in fighting against domestic violence (e.g. Henderson, 2000a). This would involve, for example, closer work with women's services to develop workplace domestic violence policies.

A common theme throughout the Australian literature on the economic costs of domestic violence is a more integrated response to domestic violence, including joint work between state agencies and governments in not only eliminating and reducing existing domestic violence, but also on preventing violence from occurring in the first place.

## > International Literature

There are many recommendations in the international literature, all with a common theme: how to improve future research into economic costs of domestic violence. Surprisingly, there is very little discussion about the effects of current research on existing services and policies. Miller, Cohen and Wiersema (1996) suggest several areas requiring modification:

- > improving estimated incidence  
Crimes such as rape, domestic violence and child abuse are often secret, and hence undercounted. Incidence surveys vary in many respects such as definitions and time frames, making comparison of studies difficult.



- > improving cost estimates

The report recommends as a research priority establishing the long-term impact on earnings potential for victims of domestic violence and child maltreatment. With respect to the personal crimes which concern us in this review, they conclude that:

**Repeated victimization can shatter lives, reducing the earning capacity of victims who lack the self-confidence to pursue educational opportunities they might have in the absence of the abuse.**

*The cost estimates for domestic assault and especially for child abuse and neglect are probably incomplete. They do not fully capture the effects of these crimes. Repeated victimization can shatter lives, reducing the earning capacity of victims who lack the self-confidence to pursue educational opportunities they might have in the absence of the abuse. Child abuse may also lead to intergenerational violent abuse (Miller et al., 1996, pp. 25)*

Canadian researchers Kerr and McLean (1996, p. 34) consider current work on economic costs of domestic violence as 'being preliminary and providing only a partial quantification of the costs of violence against women'. Their suggestions include the identification of additional costs in relation to domestic violence, such as:

- > Incremental medical services – to study costs associated with treating women identified as experiencing violence, and to compare them with average costs of medical services for women who are not victims of domestic violence;
- > Expenditures on alcohol and on legal and illicit drugs – to estimate some of the incremental expenditures on alcohol and drugs by women who have been victims of domestic violence;
- > Increased tax expenditures – marital breakdowns resulting from wife abuse undoubtedly lead to increased tax expenditures in the form of child tax benefits;
- > Housing costs – British Columbia's housing policy of priority placement for women and children who are victims of domestic violence means that at least some of the increased housing costs resulting from this violence are paid by government. Most of the additional costs of housing are, however, likely paid by the women themselves;
- > Legal and court costs – it is currently not known to what extent court and legal aid records can allow estimation of costs associated with violence against women;
- > Child care costs – Marital breakdowns caused by wife abuse likely result in a greater reliance on paid child care. Some of the additional costs would be paid by the women, and some by government;
- > Intergenerational effects – possible development of a 'life cycle of an assaultive male' approach to illustrate some of the intergenerational costs resulting from wife (and child) abuse and to indicate the enormous costs that can be generated by an individual male's violence towards women. (Kerr & McLean, 1996, pp. 34-36)

With respect to estimating the costs of intergenerational effects of domestic violence, which are raised in many of the articles in this review, Macmillan (2000) proposes a life-course model for estimating the long term costs of violence. Using prospective, longitudinal data from a national sample of American adolescents and a retrospective data from a national sample of Canadians, he used the life-course model to estimate losses associated with violent victimisation over the life-cycle.

Macmillan's study revealed that:

- > Income losses from violent victimisation are age-graded, with the greatest costs occurring for victimisation experienced in adolescence;
- > Criminal violence experienced in adolescence appears to influence later earnings by disrupting processes of educational and occupational attainment;



- > The total cost of criminal violence over the life course for adolescents are considerable in comparison to estimates provided in previous research. (Macmillan, 2000, p. 561)

Stanko et al. (1998) recommend that agencies establish ways for ongoing monitoring of the needs of clients who seek assistance with domestic violence situations. They also pointed out a need for further discussion into ways to document safety strategies, such as use of rehousing, criminal and civil justice remedies, and community supports. (Stanko et al., 1998, p. 49-51)

The impact of domestic violence on individuals' employment has been widely discussed in the literature. The New Zealand study singles out the area of labour force participation as a priority for further research.

*We need to better understand how family violence affects work behaviour. The results of this are highly sensitive to indirect costs, especially the cost of labour market income foregone. In our view, this is the most important area for future research and will involve theoretical as well as quantitative research.* (Snively, 1995, p.109)

Another recommendation by Snively (1995) relates to the impact of domestic violence on individuals, particularly its impacts on individual self-esteem and the extent to which it alienates people from mainstream activities.



# Conclusion

SINCE the late 1980s, the domestic violence literature reflects an increasing interest in augmenting social, psychological and criminological perspectives with an economic perspective as a way of gathering government and community support for efforts to prevent and overcome the effects of domestic violence.

Australia was one of the first countries to attempt to calculate the economic costs of domestic violence. All of the Australian domestic violence studies can be described as ‘aggregate’ studies (Laurence & Spalter-Roth, 1996), which attempt to calculate a total cost for domestic violence. Despite the inadequacy of much of the necessary data, the Australian studies were more successful in calculating the *direct* costs of domestic violence, than in calculating the *indirect* costs. No Australian study attempted to quantify these costs, though several studies included qualitative data from interviews with women about the debilitating and terrifying impacts of domestic violence on their lives and the lives of their children. While most Australian studies included some of the costs to children affected by domestic violence, none explicitly tackled the impact on costings of recent findings regarding the intersection of child abuse and domestic violence.

The international literature reviewed for this project, together with some of the Australian literature in allied fields, brought to the review examples of methodologies being employed to try to place a monetary cost on pain and suffering (e.g. Donato & Shanahan, 2001; McGurk & Hazel, 1998; Miller et al., 1996). However, some of the emerging methods remain controversial (Cohen, 2000). The potential of cost-efficient and benefit-cost analyses (Chisholm, 2000) was also highlighted. No Australian domestic violence study attempted a *cost effectiveness* analysis or a *benefit-cost* analysis. Several barriers to the use of these methodologies were identified, primarily the lack of rigorous outcome studies and the difficulties in monetising the costs of pain and suffering (Miller et al., 1996).

The literature reviewed for this project provides a range of approaches to estimating the economic costs of domestic violence. There is consistent call for improved:

- > Data collection – both to better estimate the prevalence of domestic violence and to better identify service usage and costs by victims and perpetrators of domestic violence
- > Evaluations of interventions/programs, using experimental or quasi experimental designs, as an essential foundation for cost effectiveness and cost-benefit analyses
- > Methodologies for calculating the long term social, educational, and psychological impacts on women and children

This review identified no one, ‘best’ approach to estimating the economic costs of domestic violence. This is unsurprising given the complex nature of domestic violence, the diversity of agencies in contact with women, children and men affected by it, and its high intangible costs. It is also argued strongly by some in the literature that the intangible costs of pain, fear, suffering and damaged life opportunities cannot and should not be monetised, and that including the voices of the women and children via qualitative data is essential to reporting the total ‘costs’ of domestic violence (e.g. Kerr & McLean, 1996; Stanko et al., 1998).

Given the hopes that estimating the costs of domestic violence will result in increased commitment to the prevention and eradication of domestic violence, Yodanis, Godenzi and Stanko (2000, p. 275) offer a challenging cost-benefit perspective:

*If studies showing the economic costs of violence against women are not effective in directing government and business efforts towards reducing male violence, it may be because the economic costs revealed in such studies are less than the unspoken economic benefits of maintaining male dominance in social institutions. The millions of pounds in costs resulting from male violence may be a small price for men to pay in exchange for their continued control of political and economic power, resources, and status. In this case, we may have to use an economic perspective to address a different question—who benefits economically from violence against women?*



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## Endnotes

- 1 ‘...the number of case years is defined as being the number of years after and including the year in which the first direct cost was incurred, to the time when costs as a result of the violence ceased.’ (KPMG Management Consulting, 1994, p. 23)
- 2 The report includes formulae for each step in the data analysis
- 3 The rape and sexual assault samples were analysed separately because of the legal definitions of these terms under the Queensland Criminal Code at the time of the study. Both involve non-consensual sexual activity, but rape was legally defined solely as penis/vagina penetration. Other forms of sexual assault were defined in law as “indecent assault”.
- 4 The concept of the case year enables cases of different lengths to be compared to each other. In this sample, the number of case years was 230, which equated to an average case period of 7.18 years.
- 5 Note that Henderson uses the terms ‘direct’ and ‘indirect’ costs in a different way to the other Australian studies. The meanings, however, are clear from the text of the report. See the full description of the study on page 29-30
- 6 The Clearinghouse acknowledges the assistance of Brisbane City Council in providing this information
- 7 Main reason for seeking assistance: domestic violence, 23%; relationship breakdown, 12%; financial difficulties, 11%; eviction/previous accommodation ended, 10% (Australian Institute of Health and Welfare, 2000, p. xviii)
- 8 For description of benefit-cost analysis, see pages 46-50
- 9 This aspect of their work is described in the later section on cost effectiveness and benefit-cost analyses.
- 10 See definition on page 14



## Appendix 1: Table 1 – Summary of Australian studies on economic costs of DV

State/ Territory	Author & Year	Type of Violence included	Incidence rate	Total cost
QLD	Roberts 1988 (for Domestic Violence Task Force)	Severe DV based on the Conflict Tactics Scale	3%	\$108.65 mill p.a.
NSW	Distaff Assoc. 1991 (part of DV Strategic Plan)	Emotional, physical, and sexual abuse against women at 3 stages of acknowledgment and service usage	Overseas figures on % of DV cases reported to police, combined with NSW police statistics. 4.5%	\$1,525 billion p.a. (1990 values)
QLD	Blumel et al.1993	Separately calculates physical/sexual/psychological/social DV, and rape and sexual assault of women	3%	\$620 mill annually for violence against women.  Annual cost for DV sample only was \$556 million



Types of costs included	Methodology	Costing procedure	Strengths/limitations
<p>Direct (police and legal costs, benefits, emotional, health and physical support) Indirect (productivity lost due to DV)</p>	<p>Data about services used and £ effects of DV from interviews with 20 women recruited through refuges &amp; support agencies. (retrospective case study) Takes lifetime figures on a case to case basis. Data about unit costs obtained from services. Findings extrapolated across wider population on basis of a 3% incidence rate.</p>	<p>Unit costs = number of services of each type used by the victim * cost of that service adding as many services as used. No. case years = adding duration of case years for each victim Cost of services p/a = no. of victims in population * cost per victim per case year</p>	<p>One of the first such studies undertaken.  Small sample, relied on memory of sample, representativeness of sample unknown  Full unit costs were not always available</p>
<p>Direct for stage 1 (doctors, counsellors, psychiatrists, hospital, medication) + income foregone. Stage 2 (accommodation, legal, medical, income and paid work).  Costs to government included: health, child guidance &amp; welfare service delivery; accommodation; income provision; income earning; &amp; law enforcement.  Indirect costs for others like employers also calculated.</p>	<p>Data drawn from statistical inferences, basic accounting and micro-economics. Estimate of incidence of DV calculated by using data on police call out rates and making assumptions on non-reported cases to be half of those reported. Presumed population divided in 3 stages; acknowledged DV victims; non-acknowledged; and those past violence in their lives.  Costs calculated only for stages 1&amp;2</p>	<p>Most figures calculated by averaging the cost over the expected population. Stage 1 costs calculated by multiplying times when women visited services with cost of medication p/a * cost of each service + income foregone. Stage 2 same with services + income costs based on estimates of number of women leaving jobs. Stage 3 not calculated.</p>	<p>Costs based on assumptions about number of women affected. Estimates about number of women leaving jobs also assumed.  First to attempt to identify costs for women who have not disclosed abuse.  Three stage model used in later international studies.  Identification of which parties bear the costs of DV  Women's costs are twice those of government</p>
<p>Direct costs (services such as medical, legal, hospital, counselling) and Opportunity costs (lost income due to DV).  DV,rape and sexual assault costs calculated separately.</p>	<p>Sample of 10 victims of DV, 20 of sexual assault and 20 of rape recruited through support agencies. (i.e. retrospective case study method)  Costs of services used based on information from agencies.</p>	<p>6 steps used in calculations. 1. figures for each case added to produce total direct cost per case. 2. opportunity costs calculated per case multiplying subject's weekly wage &amp; no. of weeks absent from work due to DV. 3. Direct and opportunity costs added to get total per case. 4. Cost per case divided by total no. of case years to produce costs case p/a. 5. Average cost = adding costs per case year *no. of cases and dividing that by total no. cases. 6. total cost of DV for QLD calculated by average cost per case year * no. of victims seeking help in QLD p/a.</p>	<p>Sample relatively small. Representativeness unknown. Attempted to include costs to perpetrators, but relied on memory of sample to determine them.  Division of sample into DV, SA and rape is confusing, as there is overlap in the groups in types of abuse suffered.</p>

## Appendix 1: Table 1 – Summary of Australian studies on economic costs of DV (cont..)

State/ Territory	Author & Year	Type of Violence included	Incidence rate	Total cost
TAS	KPMG 1994	NCVAW definition: "behaviour adopted to control women which results in physical, sexual and/or psychological damage, forced social isolation, economic deprivation or behaviour which leaves a woman living in fear".  Included impacts on the women's children	1.8%	\$17.671 mill p.a.
NT	KPMG 1996	NCVAW definition: "behaviour adopted to control women which results in physical, sexual and/or psychological damage, forced social isolation, economic deprivation or behaviour which leaves a woman living in fear".  Included impacts on the women's children	2.6%	\$8.86 mill p.a.
AUST	Brisbane City Council (Henderson, 2000)	Effects of physical, sexual, psychological and social DV on the workplace	2.0% (midpoint between the ABS Crime and Safety Survey 1998 and ABS Women's Safety Survey, rounded down to 2%)	\$1.5 bill p.a.



Types of costs included	Methodology	Costing procedure	Strengths/limitations
<p>Direct, indirect and opportunity costs calculated, but only direct costs included in the total costs projected for Tasmania</p>	<p>Retrospective case study approach using a structured questionnaire with 40 women across metro and rural areas. Recruited through Tas OSW &amp; support services. Women selected to represent broader characteristics. Findings extrapolated to wider population based on 1.8% incidence rate. Costs based on info from sample about no. and frequency of visits and from services.</p>	<p>Extrapolating costs of study across population involved using average costs per case year and multiplying the figure by total number of families affected. Indirect costs were not extrapolated. Opportunity costs were not financially modelled but qualitative findings were presented.</p>	<p>As the study was retrospective, women's reporting relied on memory.</p> <p>Projected total costs only included direct costs.</p> <p>Calculated the proportion of direct and indirect costs borne by community/government, women and others (family and friends)</p>
<p>Direct, indirect and opportunity costs calculated, but only direct costs included in the total costs projected for the NT.</p>	<p>Qualitative &amp; costing data obtained through interviews with 32 women selected via newspapers &amp; services based on criterion that at least 2yrs passed since the violence began, and to represent a variety of women living in NT. Violence in most women's lives occurred between 1954-1985. Data was collected on type and frequency of services accessed, length of time for which they were used. Cost of services obtained through their data.</p>	<p>Extrapolating costs of study across population involved using average costs per case year and multiplying the figure by total number of families affected. Indirect costs were not extrapolated. Opportunity costs were not financially modelled but qualitative findings were presented.</p>	<p>For some women violence occurred over 30 years prior to the study. There weren't as many services at the time, so costs would be only a fraction of those incurred in 1980s.</p> <p>First study to use the 1996 Women's Safety Survey to select incidence rate. However, this under-represents rural and Indigenous women, so conservative for the NT</p> <p>Total estimated costs for the NT included only direct costs.</p> <p>Calculated the proportion of direct and indirect costs borne by community/government, women and others (family and friends)</p>
<p>Direct and indirect costs to business (lost productivity, absenteeism, diminished work performance, tax share of relevant public sector costs, foregone profits, discretionary spending impacts). The social and psychological impact on individuals and the wider community (indirect costs) are identified but not monetised.</p>	<p>Data obtained through review of relevant Australian and international literature. Most information obtained directly from the Australian Bureau of Statistics surveys and from specific DV studies commissioned by State and Territory Governments.</p>	<p>Detail not included in report</p>	<p>First study to focus on costs to the business sector.</p> <p>Did not calculate costs of pain and suffering incurred by women who have experienced DV.</p> <p>Provides very little data about methodology used.</p>



## Appendix 2: Table 2 – Summary of International studies on economic costs of DV

Country	Author & Year	Type of violence included	Total cost	Types of costs included
Switzerland	Yodanis & Godenzi 1999	Physical, sexual & psychological abuse of women and girls	400 mill Swiss francs US\$ 290mill	Direct costs of: medical treatment; police & justice; victim-related support and counselling; research
USA	Miller, Cohen & Wiersema 1996	Personal crime including domestic violence, sexual assault, rape & child abuse	Total for personal crime: US\$450 billion annually, of which 300 billion = costs of victim pain and suffering DV component US\$67 billion	Tangible: cost of property damage, payments for hospital and physician care, non-hospitalisation injuries, mental health care, police & fire services. Intangible: productivity lost and quality of life (pain and suffering)
USA	Rudman & Davey 2000	Sexual assault, physical violence, psychological violence	Average total charge: \$8,159.81; Average daily charge: \$2,147.54	All costs related to inpatient medical treatment
Canada	Day 1995	Violence against women	C\$1.5 billion	Health related costs of DV
Canada	Greaves, Hankivsky. & Kingston-Riechers. 1995	Sexual assault/rape, woman abuse in intimate partnerships and incest/child sexual assault	C\$4.2 bill	Costs in 4 policy areas: health/medicine, criminal justice; services/education; labour/employment
Canada	Kerr & McLean 1996	Physical and sexual assault, homicide of women in the province of British Columbia	C\$385 mill	Costs of policing, corrections, criminal injury compensation, victim assistance programs, counselling for women, aboriginal programs, mental and drug related care, income assistance, sexual and women assault centres, women's loss of work time, programs for children who witness violence and treatment programs for assaultive men
New Zealand	Snively 1994	Family violence (including threats of violence on women, children and men)	NZ\$1.2 - NZ\$5.3 bill	Individual, Government, Third party & Employer - medical care, social welfare and assistance, legal and criminal justice, employment





Methodology	Strengths and limitations
Information obtained from numerous sources including National Survey of Violence Against Women, Swiss National Yearbook, Police criminal records, and Office of Federal Statistics reports on costs of public health & public finances in Switzerland. Incidence rate 11.3%	The study encountered difficulties in obtaining data about prevalence of DV. No costs of pain and suffering are included in intangible costs.
Obtained data from national surveys and local studies. Estimates based on the 1986 National Incidence Study using a statistical technique, capture-recapture modeling that estimates the number of people unknown to the system from the number detected by various sources. Does not include costs of operating criminal justice system and cost of action taken to reduce the risk of becoming a crime victim. Intangible costs based on jury awards to crime victims.	Focus on the costs to victims, esp. pain and suffering (intangible costs)  To date, the study with the most developed methodology for estimating intangible costs of domestic violence.
Data for study abstracted from 1994 Health Care Cost Utilization project and collected from 904 hospitals across 19 states. Cases of DV abstracted from general data and classified according to diagnosis. Prevalence rate calculated according to this.	Focus on economic costs only in relation to one sector (hospital).  Identified the difficulty in identifying DV via injuries  Mental disorder, trauma and pregnancy complications comprised over two thirds of identified cases of domestic violence
Includes costs of medical consultations and short and long-term psychiatric care	Focus on health sector
Uses a variety of methods such as extrapolation from survey samples of Canadian women, government statistics, case studies and examination of reports from other jurisdictions.	Identifies the proportion of costs borne by the state, the individual and third parties.  Intangible costs, such as emotional pain and suffering are not represented in monetary terms.
Reviews all literature pertinent to the issue and consults specialists in the field. Estimates based mainly on 1994/1995 budgetary data. Tangible costs, such as police costs derived by determining total policing costs and estimating proportion of these attributed to DV. Paid and unpaid work lost by women costed on the basis of VAW survey.	Found that the second largest component of costs is women's loss of work time. (Largest is income support)  Argues that intangible costs, such as emotional pain and suffering cannot be represented in monetary terms - qualitative data is supplied  Identifies many other costs which cannot be monetised.
Utilises NSW study's 3 stage model to design 3 scenarios over 3 prevalence rates (1 in 10, in 7 and in 4) Data collected from service providers & government departments.	Uses a spreadsheet approach which incorporates the main variables, assumptions & sources of data, which enables different assumptions to be tested and new data to be added as it becomes available.  Indirect cost of pain & suffering of victims not included.  Lack of information to calculate costs of income foregone by victims due to violence.



## Appendix 2 : Table 2 – Summary of International studies on economic costs of DV (cont..)

Country	Author & Year	Type of violence included	Total cost	Types of costs included
United Kingdom	Stanko, Crisp, Hale & Lucraft 1998	Physical, sexual and psychological DV against women	£5-£7.5 mill	Police, Civil Justice, Housing, Refuge, Social Services & Health care
Chile & Nicaragua	Morrison & Orlando. 1999	Physical, psychological and sexual violence and its impact on women and on children's education	DV reduces women's earnings by 1.56 billion in Chile (more than 2 percent of 1996 GDP) and by 29.5 million in Nicaragua (about 1.6 percent of GDP).	Women's labour force participation (LFP), Health services (HS) and children's educational attainment (CEA).



Methodology	Strengths and limitations
<p>Data collected from service provider surveys, records searches, a Women's Survey &amp; composite case studies. Estimates a prevalence rate of 1-in-9. Whilst the lower limit of total costs is calculated on the basis of all costs incurred by services in the area, the upper limit is based on service providers' estimate that only 2/3 of women victims of DV access main-stream services.</p>	<p>Sole study to focus on one local government area</p> <p>Incorporates research on women's patterns of help seeking to design methodology</p> <p>The largest component of costs were social services &amp; civil justice</p> <p>Argues that intangible costs of pain and suffering should not be monetised.</p>
<p>Stratified random sample of women 15-49 y.o. in Santiago (N=310) &amp; Managua(N=378) surveyed about labour force participation, health care use and children's educational attainment. Findings then extrapolated across the two countries.</p> <p>Used three measures to identify the impact of DV on children: whether the child repeated a grade, academic problems and discipline problems.</p>	<p>Calculates the impact of DV on women's labour force participation on the countries' GDP.</p> <p>Attempts to measure the impact on children's education since this is one way in which DV is thought to impact on children's future life chances and thus reflect the intergenerational transmission of violence.</p>



## Appendix 3: Table 3 – Databases searched

### Search Terms

The following terms were searched for, in their various combinations:

domestic violence		economic cost
family violence		economic costs
battered women		financial cost
violence against women	<b>X</b>	financial costs
spouse abuse		cost-benefit
wife abuse		cost-effective
partner abuse		

### Australian Databases Searched

Cinch; Family & Society, Australian Medical Index, APAIS: Australian Public Affairs Index, MAIS: Multicultural Affairs Information Service, APAIS Fulltext, AGIS: Aboriginal and Torres Strait Islander Health: ATSIHealth, Attorney-General's Information Service, National Bibliographic Database, Rural: Rural and Remote Health Database, Indigenous Studies Bibliography (AIATSIS)

### International Databases Searched

Social Science Plus, Social Sciences Citation Index, Expanded Academic ASAP, Science Citation Index, Arts & Humanities Citation Index, Social Work Abstracts Plus, PQD5000 via Proquest Full Text, Social Services Abstracts, Eric, Ageline, EconLit, Reader's Guide Abstracts Full Text: Mega Edition, Wilson OminFile: Fulltext Mega, Sociological Abstracts Database, PAIS International, Healthstar, International Political Science Abstracts, LegalTrac, CINAHL (Cumulative Index to Nursing and Allied Health Literature), Academic Search Elite, Current Contents, EBSCO Online Citations, Science Direct, Psychinfo, Periodical Abstracts, ABI/INFORM Global via ProQuest Full Text

### Search Engines Used

[www.google.com](http://www.google.com)  
[www.anzwers.com.au](http://www.anzwers.com.au)

