

The Economic Costs and Consequences of Child Abuse in Canada

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Executive Summary

This project is the collaborative effort of faculty from the Departments of Economics and Women's Studies at the University of Western Ontario, the Program for Traumatic Stress Recovery at Homewood Health Centre and an independent economic costing consultant, funded by the Law Commission of Canada. Its goal is to measure the economic costs of child abuse for 1998 for Canada. We use the economic costs of violence model developed by Tanis Day, a member of the research team. Major sources for this project include provincial and federal budgets, the Incidence-based Uniform Crime Survey (UCR2), the Canadian Incidence Study of Child Abuse and Neglect (CIS) and the 1990 Ontario Health Survey Mental Health Supplement (OHSUP). It is our goal that this research increase awareness of how the costs and consequences of child abuse ultimately affects all Canadians and in turn contributes to the reduction of child abuse in Canadian society.

Child abuse is a serious social problem which can take many forms. We include physical, sexual, and emotional abuse, neglect and witnessing violent behaviour in our definition of abuse. The literature shows that there are many consequences of abuse, both short and long-term. The immediate physical consequences of abuse include soft tissue damage, cuts and bruises, fractures of the skull and other bones, central nervous system damage, brain damage, language impairment as well as perceptual-motor problems. This can lead to lower scores on general intellectual functioning, academic achievement, aggressive behaviour, psychological problems, hopelessness, depression and low self worth. Longer-term effects include violent behaviour, including abuse of one's own children, increased rates of aggressive behaviour, including non-violent acts, higher rates of substance abuse, greater likelihood of criminal behaviour and significantly more emotional problems including anxiety depression, dissociation and psychosis. The consequences of childhood abuse are not only devastating for

the individual but also for society as a whole. These effects may also be experienced by an entire group of people and contribute to creating a legacy of abuse for particular societal groups.

The Day model of the economic costs of violence consists of measuring costs in six major areas: Judicial, Social Services, Education, Health, Employment and Personal costs. The costs range from those assumed by the government to those assumed by the individual. In each category there are many possible costs and our calculations depend on the availability of data. Included in the area of Judicial costs are policing, court trials, Legal Aid, the Criminal Injuries Compensation Board and penal costs including incarceration, parole and statutory release. These costs associated with the justice system are entirely funded by the public sector. Social Services, both publicly and privately funded, are included. The cost of the former is based on information provided by provincial budgets. Education costs focus on the demand for special education services as a consequence of behavioural and learning problems in child abuse victims. Employment costs are calculated mainly from the OHSUP in the area of lost income. Health costs are measured by looking at immediate effects of abuse, persistent medical costs and long-term medical costs experienced by adult survivors of child abuse. The CIS provides some information on the immediate costs of abuse and the OSHUP data give details about long-term health costs. Personal costs include transportation, relocation, costs associated with legal proceedings, drugs, therapies, alcohol, self-defence systems and goods and services purchased as a result of the abuse. We drew on data from a survey of residents in the Program for Traumatic Stress Recovery at Homewood Health Centre to calculate a conservative estimate of the annual personal costs to victims.

Our calculations for the total costs of child abuse for Canadian Society were as follows:

Judicial	\$ 616,685,247
Social Services	\$ 1,178,062,222
Education	\$ 23,882,994
Health	\$ 222,570,517
Employment	\$11,299,601,383
Personal	\$ 2,365,107,683
Total	\$15,705,910,047

This total reflects a minimum cost to society. Some areas of cost are drastically underestimated and others are not included at all due to the lack of available data. There is a great need for better collection of data on child abuse and new surveys to measure its incidence and prevalence. Even this conservative estimate, however, shows the great cost to Canadian society from child abuse. Most of the costs are borne by the individual in lost income and other out of pocket personal costs, yet the annual costs to society in general, especially in terms of lost Gross National Product, are significant. The investment of Canadian government at all levels in social service directed at this serious social problem represents only a small fraction of the billions of dollars lost each year. A well-planned and thoughtful investment of significant public funds in early detection, prevention and treatment of all forms of child abuse is not only a moral necessity for Canadian society, it is also sound fiscal policy that would directly benefit us all.

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Economists Martin Dooley from McMaster University and Steve Easton from Simon Fraser University, Professor of Social Work Nico Trocmé from the University of Toronto, sociologist Ross Macmillan from the University of Minnesota and Chief of Research and Analysis Holly Johnson of the Canadian Centre for Justice Statistics of Statistics Canada have all provided much appreciated feedback and assistance at various stages of the project.

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I. Introduction

Child abuse affects us all, no matter what our role or position is in Canadian society. When a child is hurt, the repercussions are felt by us all. Although this could be taken as a metaphorical or spiritual statement, it is also economic fact. Everyone quite literally pays for violence in one way or another.

Child abuse is generally a hidden act in our society. It usually happens behind closed doors and in private moments, often perpetrated by those adults who are the most trusted by their child victims. Hand in hand with the near invisibility of child maltreatment comes an inability to describe it, both by qualitative and quantitative means. This problem has begun to be addressed in recent years by activists and researchers who have made us more aware of the magnitude of this violence and its consequences for both individuals and society.

One direct way to measure the magnitude of child abuse is to quantify its economic costs. Estimating the collective costs of child maltreatment is central to understanding the impact and burden of such abuse on both the individual and society. Our goal in the research presented in this report is to begin to fill this gap in our knowledge by estimating the costs of this serious social problem for Canadian society.

Our team, composed of a partnership of faculty from the Departments of Economics and Women's Studies at the University of Western Ontario, the Program for Traumatic Stress Recovery at Homewood Health Centre, and an independent economic costing consultant, first came together to propose this work in 1999. The calculation of economic costs is not new to economists, but its application to the area of child maltreatment is fairly recent.

It was clear to us from the beginning that our task was a challenging one. Our model of economic costing is very comprehensive, drawing on the wide range of consequences of child abuse that have been identified by researchers. However, in many areas no data are collected

that would permit us to assess the consequences of child abuse from a costing perspective. We present here, of necessity, only a partial picture of the true range of costs resulting from child maltreatment. Thus, our total final cost represents a conservative underestimate of the total costs of child abuse to Canadian society in one year, 1998.

The major sources that we were able to access for this project included provincial and federal budgets, the Incident-based Uniform Crime Survey (UCR2), the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS) and the Ontario Health Survey Mental Health Supplement (OHSUP). The UCR2 is an ongoing survey of police forces conducted by Statistics Canada that collects data on the nature and incidence of crime in Canada. For this study we use UCR2 data from 1999.¹ Since participation of police forces is voluntary, the data are not nationally representative. For 1999 the results are based on a sample of 164 police departments in 7 provinces, representing 46% of the national volume of crime.² Despite this limitation, we decided to proceed and use the UCR2 data in our calculations. In most instances, it would not have been possible to calculate any estimates of the criminal costs of child abuse without the information it provides. The CIS, funded by Health Canada and carried out by a team of researchers led by Nico Trocmé of the University of Toronto, studied a representative sample of 7,672 child maltreatment investigations by Child Welfare Services in Canada in 1998. It gives one of the only estimates of the prevalence of the abuse of children in Canada. The OHSUP was conducted in 1990 by Statistics Canada on behalf of the Government of Ontario. It surveyed 9,953 Ontarians 15 years of age or older about a wide range of health factors and behaviours, as well as about whether they had experienced abuse as children. It is one of only a few data sets yielding statistics about adult survivors of abuse in childhood. These sources

¹ Data from the UCR2 survey are available for 1997 and 1999, but not for 1998, the year that we use in this study.

² Statistics Canada, *Family Violence in Canada: A Statistical Profile* (Ottawa: Minister of Industry, 2000) at 55.

enabled us to provide cost estimates in all of our priority areas with one exception: the personal costs of child abuse. For this information we turned to our partner, Homewood Health Centre.

Homewood Health Centre is a psychiatric hospital located in Guelph, Ontario. Of particular interest for this project is Homewood's six week residential treatment program for adult survivors of childhood trauma. It offers a Program for Traumatic Stress Recovery that is unique - certainly in Canada, if not the world. Homewood staff, using a questionnaire developed by our project team, interviewed a small number of child abuse survivors both to test our model and to collect data that allowed us to begin to assess personal costs.

We further tested our preliminary results by presenting them to a group of economists, researchers and practitioners in the field of child abuse as well as adult survivors of child abuse in June of 2001. We are most grateful for all of their comments, particularly the courageous survivors who gave us honest feedback about our work.

II. Why Measure the Economic Costs of Child Abuse?

Although there has been great progress in recent years in acknowledging the importance and severity of child abuse, we are still a long way from understanding the overall impact this serious problem has on society. There are many ways to describe important and pressing social issues. A survey to determine incidence and prevalence might be one of them. Another might be a qualitative study that relies on the life stories of those who have experienced child abuse. Here we provide another method of viewing and describing child abuse by calculating what the economic costs of this crime are to individuals and society.

Expressing the costs of abuse with a conservative dollar estimate provides for a better understanding of the impact of abuse and gives information on its current status in society. In addition, it supports and develops existing research in the field. The high costs to society can be

used as a means of persuading politicians and policy makers that it is time to act on the problem, and may lend support to those programs and policies that work to treat the causes rather than the consequences of child maltreatment. Economic costing of child abuse also establishes a baseline for improvement of services to victims, and for measuring long-term cost reduction to society.

Economic costing studies are of use to a broad spectrum of individuals. Activists and workers with survivors of abuse will find that the cost estimates are a dramatic and powerful way to raise public awareness of this important issue. Fundraisers who are raising money for private services that work to end abuse can use the cost estimates to show the magnitude of the need for investment in organizations that work to alleviate child maltreatment. Policy makers and government service providers can employ the results to justify new government-funded programs that prevent these costs from being incurred. Researchers who are working to better understand the problem of child abuse will find that the results of an economic costing study enlarge their understanding of the issue. An interesting aspect of economic costing is that it often provides a middle ground on which both fiscal conservatives and anti-violence activists can meet. Both can agree that something that effects society so negatively and to such an extent must be prevented.

There are those who might feel that translating a child's pain into a dollar value does not support a sensitive understanding of the issue. Although in this study we do not attempt to cost out pain or suffering, others in Canadian society, such as the courts and the Criminal Injuries Compensation Board, certainly attempt to do so.³ Not only is this a difficult exercise in practical terms, but we can all agree that no numerical value can adequately express the level of betrayal and emotional and physical damage experienced by children who are abused. Many of

³ M.A. Cohen, "Pain, Suffering, and Jury Awards: A Study of the Cost of Crime to Victims" (1988) 22 *Law and Society Review* 537 at 555. Cohen estimates the aggregate annual cost of crime to victims in the U.S. at 92.6 billion US\$.

the effects of child maltreatment, although very real, are immeasurable and intangible. In this study, we determine only those costs that are borne by society that we can concretely determine.

Our estimates of the costs of child abuse are deliberately cautious and conservative. Nonetheless, we have found them to be substantial. Our hope is that the results of our work will increase awareness of how the consequences of child abuse ultimately affect all Canadians, and that this realization will, in turn, contribute to the reduction of child maltreatment in Canadian society.

III. The Day Model of the Economic Costs of Violence

A. Description of the Comprehensive Model

To estimate the costs of child maltreatment, we expanded upon the model developed by Dr. Tanis Day, a member of our research team. This model was originally designed to measure the costs of violence against women, and adapted for this study to determine the costs of child abuse.⁴

The full model is outlined in Figure I. There are six major categories of costs: Judicial, Social Services, Education, Health, Employment and Personal. These categories of costs range from those that are assumed by the government entirely, to those paid solely by the individual. Under each of these areas we have delineated several sub-categories to capture the economic results of consequences noted in other research. The costs in these areas have been estimated to the extent possible for 1998 at a national level.

⁴ Tanis Day and Katherine M.J. McKenna, "The Health-Related Costs of Violence Against Women: The Tip of the Iceberg" in K.M.J. McKenna and J. Larkin, eds., *Violence Against Women: New Canadian Perspectives* (Toronto: Inanna Publications, 2002) 313-350.

Within each category of costs there are many possible measures. Whether we are able to include a cost or not depends on whether or not there are available data. Within the first category, Judicial costs, we are able to measure a great deal because all the programs are operated with government revenues, so the budgets are publicly available. Judicial costs include policing, court trials, Legal Aid, the Criminal Injuries Compensation Board (CICB) and penal costs such as incarceration, parole and statutory release. These are costs borne entirely by the public sector and are depicted on the far left side of Figure I. Judicial costs include costs related to the perpetrators of child abuse, and costs resulting from criminal activity of the survivors of child abuse whose criminal behaviour is related to the abuse they suffered as children.

Social services consist of foster care and provincially funded social welfare programs designed for the prevention or treatment of child abuse. These are estimated according to provincial budgets, only some of which provide detailed, easily accessible data for our purposes. Social Services also include privately funded social service agencies. For the latter, it is very difficult to assess costs, even though they are likely to be considerable. In London, Ontario alone there are an estimated 45 agencies that work with children. It is safe to assume that some of the children would be accessing their services as a consequence of abuse. However, these agencies do not collect data on the percentage of child abuse victims among their clientele. One exception to this in Canada is the 'Kids Help Line'. We include this agency in our study, but it is only a token representation of the full cost of privately funded social agencies.

Education costs focus on the added demand for special education services related to behavioural problems and learning disabilities in child abuse victims. These direct costs are the responsibility of the government, and are calculated based on the information collected by the CIS.

Health costs are paid by both government and individuals. As a result, they appear in the centre of the model. We divide the health costs into three time frames – immediate effects of abuse on the child, persistent medical problems for children as a result of an abusive history, and long-term medical costs experienced by adult survivors of abuse. Nico Trocmé’s work from the CIS provides some information on the number of visits to a physician by children, which allows us to calculate the immediate costs in terms of visits to the doctor at the time of abuse.⁵ The OHSUP data provide details on long-term costs such as how many visits to the hospital or professional service providers an adult survivor makes during the year. However, we were not able to access an adequate data source relating to persistent medical problems for children. One future resource might be The National Longitudinal Survey on Children and Youth (NLSCY), a survey being conducted by Statistics Canada and Human Resources Development Canada that surveys the same children over several years. The NLSCY currently does not ask questions about the respondents’ experiences of child abuse, largely because of confidentiality issues. However, once the respondents are over the age of 18 and the legal requirement to report child abuse will no longer be a concern for interviewers, it is hoped that such questions will be added to enable researchers to better understand the nature of persistent health problems and other effects of child abuse.

The employment section of costs measures lost income from the more marginal labour force activity characteristic of the abused population. This reflects lower educational attainment, problems in holding a job, and low self esteem because of childhood maltreatment. We use the OHSUP to provide data in this category. We also measure lost earnings as a result of incarceration related to child abuse for both perpetrators and survivors. While the weight of lost

⁵ Nico Trocmé, et al., *Canadian Incidence Study of Reported Child Abuse and Neglect: Final Report* (Ottawa: Minister of Public Works and Government Service Canada, 2001) at 44.

earnings is borne by the victims and their families, the government also faces reduced tax revenues as a result of lower productivity and consequently lower Gross Domestic Product.

The final category of costs is personal costs to the victims and their families. These costs can include transportation, relocation, costs associated with legal proceedings, drugs, therapies, alcohol, self-defence systems, or any good or service purchased as a direct or indirect result of child abuse. To estimate these costs we use the data drawn from the Homewood survey. Each participant in the survey estimated his or her personal costs. Based on the information drawn from this small sample we assume a very conservative estimate of the annual personal costs to victims.

We developed our comprehensive model of the economic costs of child abuse through an extensive review of the literature on child abuse, discussed in the following section of this report. We wanted, however, to also seek feedback from those who were the most directly affected by and knowledgeable about child abuse. We did this by two means. The first was through the two days of consultations with survivors of abuse and other experts that we held in June of 2001. The other means was by the questionnaire carried out for the project by Homewood Health Centre.

B. Homewood Health Centre Survey

The questionnaire that was used for the Homewood survey was developed by the research team based on the adapted Day model. Our intention was to intensively interview a small sample of abuse survivors to test our assumptions. Accordingly, 19 participants in the residential treatment program for adult survivors of childhood trauma at Homewood Health Centre were interviewed over several weeks in early 2001. The questionnaire was approved by the Homewood ethics committee, and all participants gave their informed consent. Participation in the survey was entirely voluntary, in response to a posted notice. Seventeen of the

respondents were women, and the majority were between the ages of 25 and 54. All of them were abused in their own homes, and all but one grew up witnessing violence toward others. In addition to this, a smaller number (nine) experienced abuse in the home of a friend or relative, and six were abused by adults they knew through a public institution, such as a school or church. This was not intended to be a representative group of survivors. In fact, it is likely that this sample is biased toward those survivors who come from upper middle class backgrounds in their adult lives, since the residential program is paid for either through a company-sponsored employee benefits program or by the individual herself. It also may be biased toward survivors of more severe abuse, as they might be more likely to seek treatment in adulthood.

The results of the interviews showed that our model was comprehensive, and no new areas of cost were identified by the Homewood participants. Further, we have been able to use the surveys to make some very preliminary assumptions about personal costs. Obviously, a sample this small cannot be used to draw any certain conclusions, but we offer here a summary of the results by category with the intention of providing a more individual and personal aspect to the economic costs of child abuse. The full survey can be found in Appendix I and the tabulated results in Appendix II.

Justice

Although we were able to determine some significant costs of child abuse to society in the Justice category from government records, our Homewood respondents made little use of the justice system. One participant reported having contacted the police five times as an adolescent to report abuse by a step-father. No charges were ever laid. Six respondents contacted police concerning their childhood abuse as adult survivors. These contacts were initiated between 17 and 25 years after the abuse occurred. In four cases, no charges were laid. Of the two cases in which charges were laid, charges were dropped in one case and the remaining case went to court. The police testified, and the defendant was found guilty and

served two months in prison. One respondent made a claim to the Criminal Injuries Compensation Board as an adult, but there was not enough evidence to support the claim, so no award was made.

As adults, five respondents report having been in trouble with the law for reasons they associate with their abuse. All five were charged. Three spent between one night and three days in jail. One was currently awaiting trial at the time of the survey. The remaining four each proceeded to a trial by judge in magistrates court or family court. Three report being convicted. Two faced fines of \$200 and \$500, while one was placed on probation.

Social Services

Respondents from the Homewood survey listed all the social agencies they could remember having contacted as a result of the abuse, either at the time of the abuse or in their adult lives. Most of their contacts were made later in life.

As children, only four respondents contacted agencies or had them contacted on their behalf as a result of their abuse. Three of the respondents approached their churches. One reported the church to be helpful, one reported no real support, and one reported being revictimized by being molested by the priest. One adolescent sought help, but not explicitly about the abuse, with a school guidance counsellor over the course of one year. Another respondent made use of a sexual assault crisis line, which was reported to be helpful. Finally, only one respondent reported being visited twice by the Children's Aid Society, with no further action having been taken.

Two respondents report having been in foster homes. One person had three different episodes in foster care, with durations ranging from 4 months to 15 months. The second respondent spent only a few days in care and did not report being contacted by the Children's Aid Society. It is not known whether the time in foster care was the result of abuse in the home or other causes.

As adults the respondents accessed a variety of social services, some contacting more than one service. Six report contacting sexual assault crisis centres, five used crisis lines, nine accessed community counselling services, and five report using services such as day programs at hospitals for group counselling, trauma recovery or addiction services. Other respondents report accessing Al Anon and one joined Alcoholics Anonymous. One contacted the church, and one made use of an Employee Assistance Plan (EAP). In total, 13 respondents reported using at least one form of social service in adulthood. Since all of these respondents ended up in the Homewood program, they likely demonstrated more 'help-seeking' behaviour than would the general population of abuse survivors.

Education

In the Homewood survey, the highest level of education completed by the respondents include each of the following categories: three grade 10, one grade 11, six grade 12, four with some college or trade school, and five with some university. It is not clear how many, if any, completed diplomas or degrees. Three of the respondents were placed in special education situations, including two who were assigned to special schools. The other received special tutoring.

Of the eighteen respondents reporting problems in school only six had not dropped out of school at some time as adolescents. Of the ten who recalled their grade at leaving school, two dropped out at grade 7, four at grade 10, three at grade 11, and one at grade 12. Ten respondents chose to return to school at a later date. Two returned after only one year to complete further high school. One returned at age 19 for one semester, but left again, only to return as an adult 14 years later. The others returned between 5 and 25 years later.

Of the eighteen respondents who replied that they had trouble in school, there were a variety of problems reported. These included lack of concentration, inability to retain information, short-term memory problems, being shy and withdrawn, being angry and

aggressive, refusing to participate and talking back to teachers. Their lack of trust in adults and authority figures as a result of abuse undermined the ability of the respondents to reveal the root cause of their problems. In some cases, children were kept home from school after assaults so that others would not see their bruises. When asked if they thought their history of abuse had affected their education, all these adult survivors of childhood abuse responded affirmatively with such comments as “Yes, absolutely,” “Definitely,” and “Without question.”

Health

The participants in the Homewood survey were asked about their use of the health care system both at the time of their abuse as children, and throughout their lives as a result of this maltreatment.

Fourteen respondents reported visits to professional service providers immediately after the abuse had occurred. Seven visited family doctors, three were taken to the emergency ward of a hospital, one received treatment by a dentist, one by a psychiatrist and one visited a specialist. The respondents were asked to describe the health problems they experienced directly from maltreatment. Twelve suffered from headaches, six had cuts and bruises, six reported rashes or skin problems and three developed eating disorders. Among the group there were also reports of attempted suicides, emotional problems, insomnia, bedwetting, dizziness, hyperactivity, a perforated uterus, a yeast infection, menstrual problems, an ulcer, asthma, problems with the back, stomach, ears, kidney and neck, a concussion, hands burned and a head split open.

As adults, the group all reported long-term health effects of maltreatment and made use of many medical services to help with the consequences of the abuse. Seventeen visited family doctors, some reporting visiting as often as “hundreds of times.” Eleven accessed health care through emergency wards at hospitals. Again the reported frequency is high, ranging from five times to over 100 times. Psychiatrists were consulted by thirteen respondents, with the number

of visits ranging from once to hundreds of times. Nine respondents were treated by chiropractors, nine by physiotherapists, three by dentists, and four by either psychologists, counsellors, or massage therapists.

The respondents were also asked to describe health problems that they suffered as adults that they believe were caused by the abuse. Sixteen reported Post Traumatic Stress Disorder (PTSD), thirteen experienced depression, ten felt anxiety, seven experienced panic attacks, five had suicidal tendencies, and five developed eating disorders. Among the group there were also reports of alcoholism and drug abuse, weight problems, mental health problems, phobias, borderline personality disorder, insomnia, blood pressure disorders, muscle and joint pain, headaches, backaches, allergies, asthma, menstrual problems, knee problems, irritable bowel syndrome, ear problems, skin problems, ulcers, liver, kidney and gall bladder problems and yeast infections. All of the respondents reported current health consequences which they attributed to the abuse they had suffered in childhood.

Employment

Most of the respondents in the Homewood survey showed chronic difficulty in holding jobs. In the past, they generally had been employed in unskilled or low skilled jobs. In recent years, many had begun working in semi-skilled or skilled occupations. This suggests that their participation in the Homewood program was part of a recovery process that had already been started. Participants were asked to give a retrospective work history, including all jobs ever held, and the duration of time spent in each job. There were nineteen episodes of restaurant work, four respondents had worked in factories, ten had been employed in a retail environment, six reported jobs at a supermarket or grocery store, five worked in the transportation industry, three in the public service, and five in the health care industry. There were a wide variety of occupations reported including sales, baking, construction and agriculture. The duration of time spent in these jobs was relatively short for some respondents, but not for all. There are 23

reports of jobs lasting less than six months, four lasting between 7 and 11 months, 37 lasting between one and three years, 19 between four and seven years and 8 lasting 10 years or more.

When asked if they thought their history of abuse had influenced their work performance, only one respondent indicated that it had not. Fourteen reported absences from work ranging from a few times per week to once a month, some taking 2 to 3 days, others as much as weeks off work at a time. Eleven respondents felt they had lost jobs as a result of their incapacities relating to abuse. Eight also reported missed salary increases and eight felt they had missed promotions due to the consequences of their abuse histories. Four reported suffering chronic unemployment. Their work difficulties were caused by such diverse factors as: feeling traumatised, drug use, alcoholism, conflict with co-workers, isolating oneself, not being able to cope with pressure, trouble with concentration and comprehension, and difficulty dealing with personal problems.

There were eighteen respondents who reported having periods during which they collected Unemployment or Employment Insurance. Of this group, nine respondents spent less than one year collecting and nine respondents were on Unemployment or Employment Insurance for periods ranging between one and three years.

Personal Costs

The Homewood respondents had a wide array of personal costs, summarized in Tables I-III. These included therapies, self-help materials, prescription and non-prescription drugs, alcohol, transportation, unlisted telephone numbers, costs associated with legal proceedings, costs of relocating, security services, childcare, costs to their families, and a host of other personal expenses. The costs to these individual survivors of childhood abuse were substantial, and persisted over a long time period.

When asked what they thought were the areas of greatest costs to themselves as survivors, the respondents listed the mental health of themselves and their children, education

and work. Among other costs, they had incurred medical and counselling expenses, re-locating costs, and the costs of addictions. There is no question that their economic productivity had been reduced, and their personal expenditures were skewed toward goods and services that reflected the on-going nature of the consequences of their childhood traumas.

The Homewood data, although not providing a reliable sample, still provide a more personal sense of how abuse has affected the lives of real people. When we examine the literature in the field of child abuse, we find that the respondents from Homewood generally appear to be not atypical of the larger population of those abused as children.

IV. The Consequences of Child Abuse

Maltreatment of children takes many forms. Physical abuse, sexual abuse, emotional abuse, neglect and the witnessing of violent behaviour between adults and other children are all forms of abuse. Abuse can be both intra-familial and extra-familial, at home or away from home. It can happen with someone the child knows well, or with a total stranger. It can happen once or be repeated many times. Some children suffer from on-going abuse, with different perpetrators and in different contexts throughout their childhood.

Generally, the literature in the field of child abuse characterizes physical violence by such acts of aggression as hitting, kicking, poisoning, exposing to extreme heat or cold, burning with objects such as cigarettes or irons, or shaking. Physical consequences include soft tissue damage such as cuts and bruises, fractures of the skull and other bones, central nervous system damage including brain damage, and language impairment. Short term results may involve perceptual-motor problems, lower scores on general intellectual functioning and academic achievement, aggressive social behaviour with both adults and peers, and psychological problems such as hopelessness, depression and low self-worth. Research shows

that long term effects can include increased rates of aggressive and violent behaviour, including abuse of one's own children, increased rates of criminal behaviour including both violent and non-violent acts, higher rates of substance abuse, and significantly more emotional problems including anxiety, depression, dissociation, and psychosis. Male victims tend to become more aggressive and violent while female victims tend toward self-destructive behaviours and attitudes, although all types of consequences are observed in victims of both sexes.⁶

In general, the literature on child abuse describes sexual violence as including touching of the adult's or the child's genitalia or breasts, rape, sodomy, oral sexual contact, exposure to pornographic images, verbal sexual suggestion, exhibitionism or child prostitution. Sexual abuse results from an adult or older adolescent child using the victim for sexual gratification. While sexual activity can occur between two children, it is not considered abusive unless there is a difference in authority or power between the children and the power is being used to force sexual behaviour.

Such violation affects the child's concept of sexuality, and children often respond in one of two opposing ways. They may develop fears and a dislike of sexual activity, or they may become overly sexualized, displaying early or inappropriate sexual behaviour with family or peers. Long-term consequences may involve promiscuity, early pregnancy, painful intercourse and orgasmic disorders, prostitution, and negative attitudes toward sex. Psychological consequences are often severe and include suicidal thoughts or attempts, poor academic

⁶ See review articles by R.T. Ammerman, et al., "Consequences of Physical Abuse and Neglect in Children" (1986) 6 *Clinical Psychology Review* 291-310; Malinosky-Rummell and David J. Hansen, "Long-Term Consequences of Childhood Physical Abuse" (1993) 114 *Psychological Bulletin* 68-79; Family Violence Prevention Unit, Health Canada, *The Consequences of Child Maltreatment: A Reference Guide for Practitioners* by Jeff Latimer (Ottawa: Ministry of Public Works and Government Services, 1998); Barbara Lowenthal, "Effects of Maltreatment and Ways to Promote Children's Resiliency" (1999) 75 *Childhood Education* 204-209.

achievement, eating disorders, substance abuse, and extreme emotional and psychological effects such as low self-esteem, depression, dissociation and psychosis.⁷

Emotional abuse, according to most scholars, includes verbal abuse, actions and words which reject, degrade, terrorize or isolate, as well as the withholding of positive emotional contact.⁸ Neglect entails failing to provide for the physical and emotional needs of the child and can include failing to provide food, clothing or shelter, or failing to engage with the child through verbal or positive emotional contact.⁹ It can also mean leaving the child without appropriate supervision or failing to protect the child from harm. Neglect can have devastating consequences since it can represent an ongoing, regular style of parenting from which the child has no recourse. It often goes undetected for long periods of time. These forms of abuse can leave the child with poor health, malnutrition, poor school performance, developmental delays, and severe emotional disorders. These children have a very hard time relating to other people and consequently have difficulty developing normal, healthy relationships.¹⁰

Witnessing family violence involves the child in the violent act, and is an aspect of emotional abuse. The acts can be between parents or parents and siblings. The child may be directly involved by being present in the room, or may hear the violence from another area of the home.¹¹ Children often attempt to intervene in the fighting. There may be broken furnishings or physical evidence of the acts such as injuries or the victim needing to visit a health practitioner. Short-term effects of witnessing violence include emotional disorders and difficulties

⁷ See review articles by P.E. Mullen, et al., "The Long-Term Impact of the Physical, Emotional, and Sexual Abuse of Children: A Community Study" (1996) 20 *Child Abuse and Neglect* 7-21; J. Beitchman, et al., "A Review of the Short-Term Effects of Child Sexual Abuse" (1991) 15 *Child Abuse and Neglect* 537-555; Lowenthal, *ibid*.

⁸ Latimer, *supra* note 4 at 7-8.

⁹ Latimer, *supra* note 4 at 7; Debbie Hoffman-Plotkin and Craig T. Twentyman, "A Multimodel Assessment of Behavioral and Cognitive Deficits in Abused and Neglected Preschoolers" (1984) 55 *Child Development* 794-802.

¹⁰ Hoffman-Plotkin and Twentyman, *ibid* at 801.

¹¹ Latimer, *supra* note 4 at 8.

at school. Long-term consequences show elevated rates of spousal violence both as perpetrators and victims, and increased rates of child maltreatment.¹² A recent study based on the 1999 Statistics Canada General Social Survey reveals that children in as many as 461,000 households across Canada may have witnessed violence. This study found that a child's exposure to physical conflict in the home strongly correlated to a number of negative behaviours such as physical aggression, indirect aggression, emotional disorders, hyperactivity and the committing of delinquent acts against property.¹³

The consequences of abuse vary among individuals, depending on such factors as the relationship with the abuser, the frequency of occurrences, and the severity of the assault. Consequences also differ between girls and boys, with boys tending to act outwardly on other people while girls tend to act inwardly, affecting themselves only.¹⁴ Age at onset of the abuse, duration of the abusive relationships and number of new episodes also affect the severity of the consequences. As well, the socio-economic status of the family, support structures at school or in the community, and the response received when a child reports the maltreatment all affect the outcome.¹⁵

¹² See Donald G. Dutton, "Witnessing Parental Violence as a Traumatic Experience Shaping the Abusive Personality" in Robert A. Geffner, Peter G. Jaffe and Marlies Sudermann, eds., *Children Exposed to Domestic Violence: Current Issues in Research, Intervention, Prevention, and Development* (New York: The Haworth Maltreatment and Trauma Press, 2000) at 64. See also Christine Alksnis and Jo-Anne Taylor, "The Impact of Experiencing and Witnessing Family Violence During Childhood: Child and Adult Behavioural Outcomes" Correctional Services Canada, online: <http://www.csc.scc.gc.ca/text/pblct/fv/fv04/toce_e.shtml> (03/14/2002); Nancy Stevens, et al., "Helping Children Who Reside at Shelters for Battered Women: Lessons Learned," in Robert A. Geffner, Peter G. Jaffe and Marlies Sudermann, eds., *Children Exposed to Domestic Violence: Current Issues in Research, Intervention, Prevention, and Development* (New York: The Haworth Maltreatment and Trauma Press, 2000) at 149; "Intimate Partner Violence: Fact Sheet" National Center for Injury Prevention and Control, online: < <http://www.cdc.gov/ncipc/factsheets/ipvfacts.htm>>

¹³ Mia Dauvergne and Holly Johnson, "Children Witnessing Family Violence" (2001) 21:6 *Juristat* 2.

¹⁴ C.S. Widom, "Understanding the Consequences of Childhood Victimization, in Robert M. Reece, ed., *Treatment of Child Abuse: Common Ground for Mental Health, Medical, and Legal Practitioners*, (Baltimore: John's Hopkins University Press, 2000) at 345; C.S. Widom, "Childhood Victimization: Early Adversity, Later Psychopathology" (January 2000) *National Institute of Justice Journal* 3.

¹⁵ See Widom, "Understanding the Consequences of Childhood Victimization", *ibid*, for a discussion of societal characteristics affecting the outcome of abuse; Shelly Wright, "Feature Article: Physical and Emotional Abuse and Neglect of Preschool Children: A Literature Review" (1994) 41 *Australian Occupational Therapy Journal* 56.

The most serious consequence of any type of abuse is death of the child. Manitoba Family Services reported that the fatality rate from physical violence is estimated to be between 4% and 6%, with an increase in the rate to 10% if the injured child is returned to the violent home.¹⁶ Statistics Canada reports that, on average, 48 children in Canada were killed each year by family members between 1974 and 1999. Of these, 85% were killed by their parent or step-parent.¹⁷ Most of the child deaths are children under the age of six. The younger the child, the higher is the incidence of death. A 1997 Health Canada report shows that infants have five times the overall homicide rate than for children and youth under 20.¹⁸ It must also be considered that some if not many cases of unexplained infant death may in fact be undocumented cases of abuse or neglect.¹⁹ It has been suggested that as many as 10% of the deaths attributed to Sudden Infant Death Syndrome might in fact be homicides.²⁰

A comprehensive listing of all of the consequences of all forms of abuse that are well documented in the vast literature on child abuse would include but in no way be limited to the following: showing anxiety and low self-esteem; being distrustful, fearful or angry; feeling guilty or responsible; having negative self-attributes; feeling unworthy, helpless or hopeless; suffering sleep disturbances such as insomnia or nightmares; presenting symptoms of depression or suicidal behaviours; demonstrating phobic avoidance, psychosis, paranoia or amnesia; having self-destructive behaviours such as self-mutilation or eating disorders; running away from home; abusing alcohol or drugs; being violent or aggressive; having criminal and delinquent

¹⁶ Manitoba Family Services, Latimer, *supra* note 4 at 9.

¹⁷ Statistics Canada, *Family Violence in Canada: A Statistical Profile 2002* (Ottawa: Minister of Industry, 2002) at 42.

¹⁸ "For the Safety of Canadian Children and Youth: From Injury Data to Preventative Measures" (Ottawa: Health Canada, 1997) at 254.

¹⁹ See D. Downing, "A Selective Study of Child Mortality" (1978) 2 *Child Abuse and Neglect* 101-108; J. Garbarino, "Can We Measure Success in Preventing Child Abuse? Issues in Policy, Programming and Research" (1986) 10 *Child Abuse and Neglect* 143-156; J.B. Kotch, et al., "Morbidity and Death Due to Child Abuse in New Zealand" (1993) 17 *Child Abuse and Neglect* 233-247.

²⁰ *Supra* note 18.

behaviours including truancy; becoming socially withdrawn; displaying maladaptive interpersonal patterns; having difficulty forming stable, secure relationships; having sexual phobias or sexual preoccupation; over-sexualizing relationships or being more likely to be involved in abusive sexual relationships; becoming pregnant as a teenager; being sexually aggressive, frigid, confused about sexuality or confused about sexual orientation; becoming involved in prostitution; developing problems such as multiple personality disorder or post-traumatic stress disorder; experiencing developmental delays, neurological impairment, cognitive and intellectual deficits, language deficits, poor academic achievement, reduced initiative and motivation, poor school performance or decreased likelihood of graduating from high-school; and revealing high levels of re-victimization.²¹ This is a daunting list of potential

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For a review of the literature see M.E. Billmire and P.A. Myers, "Serious Head Injuries in Infants: Accidents or Abuse?" (1985) 77 *Pediatrics* 340-342; D. Bruce, "Neurological Aspects of Child Abuse" in S. Ludwig and A. Kornberd eds., *Child Abuse: A Medical Reference* (New York: Churchill and Livingstone, 1992) 117-129; K. Christoffell, "Violent Death and Injury in U.S. Children and Adolescents" (1990) 144 *American Journal of Diseases of Children* 697-709; B. Ewigman, et al., "The Missouri Child Fatality Study: Underreporting of Maltreatment Fatalities of Children Younger than Five Years of Age, 1983-1988" (1993) 91 *Pediatrics* 330-337; R.E. Helfer and C.H. Kempe, eds., *The Battered Child* (Chicago: University of Chicago Press, 1968); K.M. Fox and B.O. Gilbert, "The Interpersonal and Psychological Functioning of Women who Experienced Childhood Physical Abuse, Incest and Parental Alcoholism" (1994) 18 *Child Abuse and Neglect* 849-858; B. Hyman, "The Economic Consequences of Child Sexual Abuse for Adult Lesbian Women" (2000) 62 *Journal of Marriage and the Family* 199-211; Ross Macmillan, "Adolescent Victimization and Income Deficit in Adulthood: Rethinking the Costs of Criminal Violence from a Life-Course Perspective" (2000) 38 *Criminology* 553-587; C.M. Perez and C.P. Widom, "Childhood Victimization and Long-Term Intellectual and Academic Outcomes" (1994) 18 *Child Abuse and Neglect* 617-633; A. Sandgrund, et al., "Child Abuse and Mental Retardation: A Problem of Cause and Effect" (1974) 79 *American Journal of Diseases of Children* 327-330; Y. Sato, et al., "Head Injuries in Child Abuse: Evaluation with MR Imaging" (1989) 173 *Radiology* 653-657; J.M. Guadin, "Child Neglect: Short-term and Long-term Outcomes" in H. Dubowitz, ed., *Neglected Children: Research, Practice and Policy* (Thousand Oaks, CA: Sage Publications Inc., 1999) 89-108; S.J. Goldman, et al., "Physical and Sexual Abuse Histories Among Children with Borderline Personality Disorder" (1992) 149 *American Journal of Psychiatry* 1723-1726; D. Jehu, "Mood Disturbance Among Women Clients Sexually Abused in Childhood" (1989) 4 *Journal of Interpersonal Violence* 164-184; Kendall-Tackett and D. Finkelhor, "Impact of Sexual Abuse on Children: A Review and Synthesis of Recent Empirical Studies" (1993) 113 *Psychological Bulletin* 164-180; M. Mian, et al., "The Effects of Sexual Abuse on 3-5 Year Old Girls" (1996) 17 *Child Abuse and Neglect* 291-298; S. Riggs, et al., "Health Risk Behaviours and Attempted Suicide in Adolescents who Report Prior Maltreatment" (1990) 116 *Journal of Pediatrics* 815-820; S. Spaccarelli, "Measuring Abuse Stress and Negative Cognitive Appraisals in Child Sexual Abuse: Validity on Two New Scales" (1995) 23 *Journal of Abnormal Child Psychology* 703-727; J.A. Stein, et al., "Long-Term Psychological Sequelae of Child Sexual Abuse: The Los Angeles Epidemiologic Catchment Area Study" in G.E. Wyatt and G.J. Powell eds., *Lasting Effects of Child Sexual Abuse* (Newbury Park, CA: Sage Publications, 1998) 135-154; D.A. Wolfe, et al., "Factors Associated with Development of Post-traumatic Stress Disorder Among Child Victims of Sexual Abuse" (1994) 18 *Child Abuse and Neglect* 37-50; J.N. Briere, *Child Abuse Trauma: Theory and Treatment of the Lasting Effects* (Newbury Park, CA: Sage Publications, 1992); A. Green, "Child Sexual Abuse: Immediate and Long-Term Effects and Intervention" (1993) 32 *Journal of the American Academy of Child Adolescent Psychiatry* 890-902; M.A. Cohen, "The Monetary Value of Saving a High-Risk Youth" (1998) 14 *Journal of Quantitative Criminology* 5-33; M. Knapp,

problems that can clearly have very negative consequences both for the individual who suffered the maltreatment and the wider society.

Abused children, for example, are known to have a much harder time succeeding at school than non-abused children. Research shows consistently that abused and neglected children score lower on all tests of cognitive ability, especially in relation to reading and mathematics.²² In samples matched for age, gender and socio-economic conditions, abused children have much higher rates of failure and repeating of grades. They are 2.5 times as likely to repeat a grade as their non-abused peers.²³ The high levels of anxiety that chronically abused children live with interfere especially with tasks requiring abstract reasoning, including reading and math.

Abused children also demonstrate more behaviour problems at school than non-abused children. They are often angry, anxious, distractible and lacking self-control. They are more

et al., "The Cost of Antisocial Behavior in Younger Children" (1999) 4 *Clinical Child Psychology and Psychiatry* 457-473; P. Kratcoski, "Child Abuse and Violence Against the Family" (1982) 61 *Child Welfare* 435-444; B.A. Miller, et al., "Delinquency, Childhood Violence and the Development of Alcoholism in Women" (1989) 35 *Crime and Delinquency* 94-108; D.J. Rohsenow, et al., "Molested as Children: A Hidden Contribution to Substance Abuse?" (1988) 5 *Journal of Substance Abuse Treatment* 13-18; C.S. Widom, *Victims of Childhood Sexual Abuse: Later Criminal Consequences: Research in Brief* (Washington: National Institute of Justice, 1995); R.R. Hilton and G.C. Mezey, "Victims and Perpetrators of Child Sexual Abuse" (1996) 189 *British Journal of Psychiatry* 411-415; J. Kaufman and E. Zigler, "Do Abused Children Become Abusive Parents?" (1987) 57 *American Journal of Orthopsychiatry* 186-192; E.S. Lake, "An Exploration for the Child Sexual Abuse Accommodation Syndrome" (1993) 11 *Journal of Interpersonal Violence* 107-117; C.S. Widom, *The Cycle of Violence: Research in Brief* (Washington: National Institute of Justice, 1992); M.J. Robertson, *Homeless Youth: An Overview of Recent Literature* (Washington: National Conference on Homeless Children and Youth, 1989); M.J. Rotherham-Borus, et al., "Sexual Abuse History and Associated Multiple Risk Behavior in Adolescent Runaways" (1996) 66 *American Journal of Orthopsychiatry* 390-400; L. Berliner and D. Elliot, "Sexual Abuse of Children" in J. Briere, et al., eds., *The APSAC Handbook on Child Maltreatment*, (Thousand Oaks, CA: Sage Publications, 1996).

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See Cathie Barret-Kruse et al., "Beyond Reporting Suspected Abuse: Positively Influencing the Development of the Student Within the Classroom" (1998) 1 *Professional School Counselling* 57-60; John Eckenrode, et al., "School Performance and Disciplinary Problems Among Abused and Neglected Children" (1993) 29 *Developmental Psychology* 53-62; Joanne M. Hall, "Women Survivors of Childhood Abuse: The Impact of Traumatic Stress on Education and Work" (2000) 21 *Issues in Mental Health Nursing* 443-471; Debbie Hoffman-Plotkin and Craig T. Twentyman, "A Multimodel Assessment of Behavioral and Cognitive Deficits in Abused and Neglected Preschoolers" (1984) 55 *Child Development* 794-802; David ; Stan Jones, "Economic Dimensions of Literacy in Canada" in *Reading the Future: A Portrait of Literacy in Canada* (Ottawa: Statistics Canada, September, 1996); Sharon R. Morgan, "Psycho-educational Profile of Emotionally Disturbed Abused Children" (1979) 8 *Journal of Clinical Child Psychology* 3; Nancy Dodge Reyome, "A Comparison of the School Performance of Sexually Abused, Neglected and Non-Maltreated Children" (1993) 23 *Child Study Journal* 17-38; John Wodarski, et al., "Maltreatment and the School-Age Child: Major Academic, Socio-emotional and Adaptive Outcomes" (1990) 35 *Social Work* 506-513.

aggressive towards both peers and teachers. These children are described by their teachers as unpredictable. While the child might arrive at school appearing happy and cooperative, there could follow eruptions of unexplained aggressive behaviour. These outbursts are often correlated with frustrations associated with an academic task the child is attempting, often resulting from a low attention span. Their behaviour is often impulsive.²⁴ One study reports, “As a population, neglected and abused children are known to question their own perceptions, fear adults, avoid the unknown and suffer from anxiety and depression which can dull the senses. These reactions to unsafe family life can make learning difficult...”²⁵ Such children vacillate between withdrawal and aggression, have a low tolerance for frustration and fear failure.

In her study of adult women survivors, Hall quotes from some of her participants reflecting on their years in school. The following are some particularly evocative comments: “A bruised child ain’t never going to learn too much. Because if she does something right or wrong, she is still going to get a beating.” “My mind was preoccupied with home. What is going to happen later?” “My mother didn’t show me no love, and so I wasn’t going to give her anything back...All of it was a pain for me...I stopped trying at all [in school].” “He [my father] messed me up so I didn’t know anything about boys at school... He took my education because I couldn’t be a part of the school stuff.” “At school there was a get-together and he [stepfather] drove right up there to get us and he had an extension cord with him. He was going to beat us all to death with it and we knew it.”²⁶ These statements reveal how difficult it was for these survivors to concentrate on academics while living with real and threatened daily abuse.

²³ Eckenrode, et al., *ibid* at 57.

²⁴ Morgan, *supra* note 22 at 4.

²⁵ Barrett-Kruse, et al., 58.

²⁶ Hall, *supra* note 22 at 453-4.

As a result of their aggressive behaviour, abused children often receive more disciplinary actions from teachers than do non-abused students.²⁷ In one study of students between grades 7 and 12, Eckenrode, Laird and Doris show that among the abused children, 34% had been sent to the principal for disciplinary action at least once, whereas only 24% of the non-abused population had a disciplinary referral. Of these same abused students, 25% had been suspended at least once. Their rate of suspension was almost three times higher than the non-abused students. Not surprisingly, the drop-out rate for maltreated children is also much higher than for the non-abused population.²⁸ In the Hall study, 70% of the women either dropped out or were expelled, although many of them also attained some vocational training in their adult years.²⁹

When abused children drop out of school they are not very employable. From the Hall study come the words of one survivor: "That's all I really knew, working the streets. That's how I made money. I couldn't go out and get a decent job because I can't read. Literate or whatever they call it. I could count money, but that's as far as I knew with math."³⁰ Literacy is highly correlated with income. In a portrait of literacy in Canada, Jones shows that there is a significant income penalty for having low skills in literacy. Seventy-one percent of individuals in the lowest level of literacy are found in the lowest two income quintiles. As literacy increases, so does income. Further, people develop higher literacy skills while at work, so those who cannot engage with the reading processes at an early age fall further behind in adulthood.³¹

Many abused adolescents who choose to leave school also run away from home. They tend to live with friends or on the streets. They are at high risk for drug addictions, prostitution,

²⁷ Hoffman-Plotkin and Twentyman, *supra* note 9 at 796-8.

²⁸ Eckenrode, et al., *supra* note 22 at 58.

²⁹ Hall, *supra* note 22 at 451.

³⁰ Hall, *ibid* at 459.

³¹ Jones, *supra* 22 at 40, 42.

teen pregnancy and revictimization by strangers or boyfriends. In a sample of 535 young women in the State of Washington, 25% reported at some time living on the street. Among the abused population within the total sample, 14% reported having had sex for money, 14% exchanged sex for a place to stay and 11% had exchanged sex for drugs or alcohol. The rates for non-abused girls were only 1 to 2% for each of these categories.³² In the words of the survivors from the Hall study, “I wanted to stay away from home so I went riding around with this older guy. I was with him a few times and I got pregnant...I never went back to high school.” “School was fun as far as the learning, but in my 10th grade there were these older guys and they followed me around...I messed with the guys and got pregnant. So I just quit school.”³³ Pregnancy ended the education of these adolescents. A study using the Canadian National Longitudinal Survey of Children and Youth showed that the difference in completed years of schooling for girls who became pregnant was two full years less. The drop-out rates for never-pregnant girls was 5.7%, for girls who were pregnant but aborted was 11.2%, and for girls who completed their pregnancies, the drop-out rate was 36.3%.³⁴

Teen pregnancy is highly correlated with child abuse. For example, a study of 3,128 girls in grades 8, 10 and 12 in Washington State showed that those who had been either sexually or physically abused were twice as likely to become pregnant, while those with both forms of abuse were over four times as likely. Of the girls who had ever been pregnant, 60% reported a history of abuse.³⁵ This figure is within the range of other studies. In a review of the relevant literature, Elders and Albert write, “A history of sexual abuse has been linked to high-risk behaviours that may account for increased risk of early unplanned pregnancy, including young

³² Debra Boyer and David Fine, “Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment” (1992) 24 *Family Planning Perspectives* 10.

³³ Hall, *supra* note 22 at 454.

³⁴ Dennis M. Byrne, et al., “Short-term Labour Market Consequences of Teenage Pregnancy” (1991) 23 *Applied Economics* 1820.

age at initiation of sexual intercourse, failure to use contraception, prostitution, physically assaultive relationships, and abuse of alcohol and drugs.” They continue, pointing out that, “Likely due to the influence of maternal stress and depression, teens with histories of sexual abuse give birth to significantly less mature, lower-birth-weight infants than do non-abused peers...pre-term, low-birth-weight infants of sexually abused adolescents are at increased risk for abuse and neglect.”³⁶ In 1992 the US government is reported to have spent more than US\$34 billion on welfare for families headed by teenagers. In 1995, the State of Indiana spent approximately US\$7.4 million in Aid to Dependent Children for approximately 2,700 teen parents.³⁷

Teenagers who drop out of school do not become socialized into the mainstream job market. Studies show the effects of childhood trauma on productivity and options for the future including education, job, and career planning.³⁸ In a study of school leavers, researchers at Statistics Canada found that girls who dropped out of school had the highest rates of unemployment at 30%, and the lowest labour force participation rates of all young people. In 1991, of these female school leavers, 27% had dependent children. Of girls who graduated from high school, only 4% had children.³⁹ In another study on high school leavers, researchers with Human Resources Development Canada found that students who had failed an early elementary school grade were more likely to leave school than those who had not failed a

³⁵ Jacqueline Stock, et al., “Adolescent Pregnancy and Sexual Risk-Taking Among Sexually Abused Girls” (1997) 29 *Family Planning Perspectives* 201-2.

³⁶ Joycelyn Elders and Alexa E. Albert, “Adolescent Pregnancy and Sexual Abuse” (1998) 280 *Journal of the American Medical Association* 649. For a review of the literature see also Boyer and Fine, *supra* note 32; Byrne, et al., *supra* note 34; Kevin Fiscella, et al., “Does Child Abuse Predict Adolescent Pregnancy?” (April 1998) 101 *Pediatrics* 620-624; Mark W. Roosa, et al., “The Relationship of Childhood Sexual Abuse to Teenage Pregnancy” (1997) 59 *Journal of Marriage and the Family* 119-130; “Teenage Pregnancy” The Family Connection of St. Joseph Country, Inc., Information about Children and Families, online: <<http://community.michiana.org/famconn/teenpreg.html>> (3/7/01); Stock et al., *ibid*.

³⁷ “Teenage Pregnancy” *ibid* at 4.

³⁸ For a profile of literature on this topic see Hall, *supra* note 22 at 446.

³⁹ Warren Clark, “School Leavers Revisited” *Statistics Canada*, (Spring 1997) *Canadian Social Trends* 10-11.

grade. School leaving is associated with lower wages and higher rates of unemployment.⁴⁰ As discussed earlier, abused children have been shown to have a failure rate that is two and a half times greater than their socio-economically matched peer group. While not all children who fail grades or quit school are abused, certainly those who do so as a result of abuse face long term educational and labour market consequences.

In a groundbreaking study, Macmillan used longitudinal data from the US National Youth Survey as well as the Canadian General Social Survey to measure the effects of assault during adolescence on long term income and occupational status. He looked only at adolescents who had been physically assaulted or threatened (with or without a weapon) by someone other than their parents, and at those sexually assaulted during their adolescent years. He found the victims to have significantly lower incomes and occupational status than the control group. Hourly wages were reduced by more than US\$1 per hour, with annual incomes being reduced by approximately US\$6,000. Much of this lower income was the result of lower educational attainment. The younger the victims were when the assaults occurred, the greater the long term reduction in their wages. Macmillan concluded that violent victimization is most costly to the individual when it occurs early in adolescence because this is the formative stage of the socio-economic life course.⁴¹

Whether in school or as drop-outs, studies show that abused adolescents often use drugs and alcohol to cope.⁴² It may be that their distress motivates them to engage in behaviour that reduces their negative emotions and dulls the pain. They may have feelings of low self-esteem, and also use substances to cope with negative feelings about themselves. They may

⁴⁰ Saul Schwartz, et al., "Do Early Childhood Experiences Affect Labour Market Outcomes?" Ottawa: Human Resources Development Canada, (2001).

⁴¹ Macmillan, *supra* note 21 at 576.

⁴² For a discussion of the literature see Dean G. Kilpatrick, et al., "Risk Factors for Adolescent Substance Abuse and Dependence: Data From a National Sample" (2000) 68 *Journal of Consulting and Clinical Psychology* 19-30.

feel isolated, which results in them looking toward other marginalized groups for acceptance. These groups tend to engage in more delinquent behaviour, including use of alcohol and drugs.⁴³ One study showed that child abuse increased the adolescent rate of alcohol, marijuana and hard-drug use or dependence by a factor of two. Additionally, abused children started the use of these substances earlier than the control group. The authors concluded that “adolescent substance abuse appears to be exceptionally resistant to change and is accompanied by a host of medical and mental health problems.”⁴⁴ One study of the costs of chronic drug users and injecting drug users indicates that these groups use significantly more inpatient and emergency health care than non-drug users. These additional health costs amount to approximately US\$1000 per person per year.⁴⁵

Research on the relationship between narcotic usage and crime shows a positive correlation. The economic costs of drug-related crime, drug treatment and criminal justice system intervention in California in 1980 have been estimated at US\$85 million, or an average of US\$20,000 per subject per year.⁴⁶ Another study by the National Institute of Alcohol Abuse and Alcoholism estimates that excessive drinking costs more than US\$185 billion per year in health care, treatment programs, premature deaths, impaired productivity, crime and social welfare.⁴⁷ While not all drug users or alcoholics are survivors of childhood abuse, many are. Earlier surveys of patients seeking treatment at Homewood Health Centre show that over 80% of women receiving treatment for addiction have childhood abuse histories and 40% of patients

⁴³ Brenda A. Miller and William Downs, “The Impact of Family Violence on the Use of Alcohol by Women” (1993) 17 *Alcohol Health and Research World* 142.

⁴⁴ Kilpatrick, et al., *supra* note 42 at 27.

⁴⁵ Michael French, et al., “Chronic Illicit Drug Use, Health Services Utilization and the Cost of Medical Care” (2000) 50 *Social Science and Medicine* 1710.

⁴⁶ M. Deschenes, et al., “Narcotics Addiction: Related Criminal Careers, Social and Economic Costs” (1991) 21 *The Journal of Drug Issues* 405.

⁴⁷ H. Harwood, *Updating Estimates of the Economic Costs of Alcohol Abuse in the United States: Estimates, Update Methods and Data*, National Institute on Alcohol Abuse and Alcoholism, 2000 online: <<http://www.niaaa.nih.gov/publications/economic-2000/alcoholcost.PDF>>

in the Program for Traumatic Stress Recovery with childhood abuse issues also have addiction issues.⁴⁸ These lifelong costs are born by the individuals and society as a result of abuse inflicted on the children many years earlier.

Abuse in childhood is also positively correlated both to delinquency in adolescence and a greater likelihood of criminal involvement later in life. In their recent findings from a longitudinal study of 908 individuals in the U.S. who had been identified as abused, compared to a control group of 667 non-abused individuals, Widom and Maxfield found this to be the case. Of the adults with a history of abuse, 27.4% had been arrested as juveniles compared to 17.2% of the control group. As adults, 41.6% of the abused population had been arrested compared to 32.5% of the control group. For violent crimes, the same pattern held true, with 18.1% of the abused population arrested for violent crimes, compared to 13.9% for the control group. Taken together, 49% or almost half of the abused survivors later had an arrest for a non-traffic related offence.⁴⁹ Canadian studies have found similar results.⁵⁰ Widom and Maxfield conclude that earlier studies that suggest the majority of abused children did not become offenders and, therefore, abuse was not related to criminal activity, must be modified in light of their results. However, they stop short of arguing that childhood abuse makes later criminal activity inevitable, instead they consider it to be an important risk factor.

In addition to all these consequences of child abuse, there are health concerns. Abused children appear to end up with long-term, recurring health conditions in adulthood. Significant long-term psychological health consequences of child abuse include depression, anxiety and

⁴⁸ Personal communication, Dr. David Wright, Homewood Health Centre.

⁴⁹ Cathy S. Widom and Michael G. Maxfield, "An Update on the 'Cycle of Violence'" *Research in Brief*. Washington, D.C.: National Institute of Justice (February 2001) 3.

⁵⁰ Christine Alksnis and Jo-Anne Taylor, *The Impact of Experiencing and Witnessing Family Violence During Childhood: Child and Adult Behavioural Outcomes* (Ottawa: Correctional Service Canada, n.d., c. 1995), online: <<http://www.csc-scc.gc.ca/text/pblct/fv/fv04/toce.shtml>>

drug dependencies.⁵¹ Risk of suicide or suicidal behaviours are measured more highly among abused adolescents and survivors than the non-abused population.⁵² This has implications for increased costs to the health care system. In a study of over 85,000 health insurance claims in 1996, the most frequent diagnosis was depression followed by adjustment disorder, anxiety, bipolar disorder, chemical dependencies, impotence and attention-deficit hyperactivity disorder. Three percent of all claimants had a diagnosis of depression.⁵³ Another study shows that people diagnosed with depression report absentee rates from work at least five times greater than those without depressive symptoms, representing a loss of approximately US\$200 to US\$400 in productivity per worker.⁵⁴

⁵¹ For a review of the literature see R.T. Ammerman, et al., *supra* note 6; J.N. Briere, *The Effects of Childhood Sexual Abuse on Later Psychological Functioning: Defining a Post-sexual Abuse Syndrome*. Paper presented at the Third National Conference on Sexual Victimization of Children, Washington D.C., 1984; J.E. DaCosta, et al., "A Review of the Long-term Effects of Child Sexual Abuse" (1992) 16 *Child Abuse and Neglect* 101-118; Joanne L. Davis, et al., "The Impact of Child Sexual Abuse on Adult Interpersonal Functioning: A Review and Synthesis of the Empirical Literature" (2000) 5 *Aggression and Violent Behavior* 291-328; K.M. Fox and B.O. Gilbert, "The Interpersonal and Psychological Functioning of Women who Experienced Childhood Physical Abuse, Incest and Parental Alcoholism" (1994) 18 *Child Abuse and Neglect* 849-858; Nadia Garnefski and Rene F.W. Diekstra, "Child Sexual Abuse and Emotional and Behavioral Problems in Adolescence: Gender Differences" (1977) 36 *Journal of the American Academy of Child and Adolescent Psychiatry* 323-328; J.M. Gaudin; M. Gorcey, et al., "Psychological Consequences for Women Sexually Abused in Childhood" (1986) 21 *Social Psychiatry* 129-133; A. Green, *supra* note 21; Carlos M. Grilo, et al., "Correlates of Suicide Risk in Adolescent Inpatients Who Report a History of Childhood Abuse" (1999) 40 *Comprehensive Psychiatry* 422-428; J.E. Irazuzta, et al., "Outcomes and Costs of Child Abuse" (1997) 21 *Child Abuse and Neglect* 751-757; D. Jehu; Michael E. Lechner, et al., "Self-Reported Medical Problems of Adult Female Survivors of Childhood Sexual Abuse" (1993) 36 *The Journal of Family Practice* 633-638; Malinosky-Rummell and David J. Hansen, *supra* note 6; Brenda A. Miller, et al., *supra* note 21; Tamerra P. Moeller, et al., "The Combined Effects of Physical, Sexual and Emotional Abuse During Childhood: Long-Term Health Consequences for Women" (1993) 17 *Child Abuse and Neglect* 623-640; P.E. Mullen, et al., *supra* note 7; J.A. Stein, et al., *supra* note 21.

⁵² See Christopher Bagley, et al., "Sexual Assault in School, Mental Health and Suicidal Behaviours in Adolescent Women in Canada" (1997) 32 *Adolescence* 361-356; Christopher Bagley, et al., "Victim to Abuser: Mental Health and Behavioural Sequels of Child Sexual Abuse in a Community of Young Adult Males" (1994) 18 *Child Abuse and Neglect* 683-697; Carlos M. Grilo, et al., *ibid*; Mary O'Sullivan, et al., "The Cost of Hospital Care in the Year Before and After Parasuicide" (1999) 20 *Crisis* 178-180; Ian G. Manion and Susan Kay Wilson, *An Examination of the Association Between Histories of Maltreatment and Adolescent Risk Behaviours* (Ottawa: National Clearinghouse on Family Violence, 1995); *Ontario Ministry of Health Schedule of Benefits: Physician Services Under the Health Insurance Act*. (Toronto, Ontario: Ministry of Health and Long-Term Care, 2000); Louis Pagliaro, "Adolescent Depression and Suicide: A Review and Analysis of the Current Literature" (1995) 11 *Canadian Journal of School Psychology* 191-201; *Supra* note 5.

⁵³ Pamela B. Peele, et al., "Datapoints: Costs of Employee Behavioral Health Care by Diagnosis" (1998) 49 *Psychiatric Services* 1549.

⁵⁴ Gregory E. Simon, et al., "Recovery from Depression, Work Productivity, and Health Care Costs Among Primary Care Patients" (2000) 22 *General Hospital Psychiatry* 153.

Reported physical health consequences for survivors include gastro-intestinal disorders, chronic pelvic pain, musculoskeletal pain, backaches, premenstrual syndrome, migraine headaches, pregnancy and delivery complications, and other neurological, gynaecological and respiratory problems. The reported difference in the rate of diagnosis between survivors and the general population is often two to three times higher, while the total number of reported conditions per patient is also higher. Among adults using health services, those who have suffered child abuse experience three to ten times the number of medical problems than those patients who have not suffered from abuse.⁵⁵ One study demonstrates that survivors of childhood rape had an average of more than three times the number of medical symptoms, over twice the bed-disability days, over one and a half times more surgeries, almost twice the functional disability, and considerably more pain and psychological distress than those without a history of abuse.⁵⁶

Although it is a relatively recent area of research, some studies have measured the costs to the medical system of the additional services required by abuse victims and survivors. In a study of pediatric intensive care, child abuse victims had significantly higher measures of severity of illness, hospital charges and daily charges. The average cost of medical bills for the acute care of a patient averaged US\$35,641 each.⁵⁷ One article shows a median cost of US\$245 per year per patient in one Health Maintenance Organization (HMO) for women survivors of sexual abuse. The annual cost attributed to such maltreatment for this HMO alone

⁵⁵ See Ammerman et al., *supra* note 6; Karen Holz, "A Practical Approach to Clients Who are Survivors of Childhood Sexual Abuse" (1994) 39 *Journal of Nurse-Midwifery* 13-18; Steven J. Linton, et al., "Sexual Abuse and Chronic Musculoskeletal Pain: Prevalence and Psychological Factors" (1996) 12 *The Clinical Journal of Pain* 215-221; Micheal E. Lechner, et al., *supra* note 51; Jane Lesserman, et al., "Sexual and Physical Abuse History in Gastroenterology Practice: How Types of Abuse Impact Health Status" (1996) 58 *Psychomatic Medicine* 4-15; Jean McCauley, et al., "Relation of Low-Severity Violence to Women's Health" (1998) 13 *Journal of General Internal Medicine* 687-691; Tamara P. Moeller, et al; Kathleen A. Kendall-Tackett, "Victimization and Diabetes: An Exploratory Study" (1999) 23 *Child Abuse and Neglect* 593-596.

⁵⁶ Leserman, et al., 9.

⁵⁷ Irazuzta, et al., *supra* note 51 at 753.

amounted to approximately US\$8.2 million in 1997.⁵⁸ It should be stressed, however, that these health studies often use samples that are not representative of the general population of abused persons, but rather only of those that are involved with the health-care system.

Compounding all these individual consequences is the fact that some children will experience these problems along with other forms of victimization and marginalization. If a child is living in poverty, or is a member of an ethnic or racial group that experiences discrimination, the consequences of abuse will be greatly compounded in ways that we can qualitatively appreciate but never adequately measure. These effects may be experienced collectively by an entire group of people. Historian Nell Irvin Painter, drawing on the work of psychiatrist Leonard Shengold,⁵⁹ argues that this is the case with the descendants of African slaves in the United States. She outlines how a heritage of child abuse beginning with the institution of slavery created a legacy of “soul murder” that has not only negatively effected the African-American community, but also their white oppressors.⁶⁰ Canada has a similar history of abuse, with our treatment of the Aboriginal population.

A recent report from the Law Commission of Canada, *Restoring Dignity: Responding to Child Abuse in Canadian Institutions*, focuses on the abuse of individuals within residential institutions. The report suggests that those children who are placed in an institutional setting are often from disadvantaged societal groups.⁶¹ A great many were individuals of Aboriginal heritage. The Law Commission’s report focuses particularly on the legacy of Aboriginal

⁵⁸ Edward A. Walker, et al., “Costs of Health Care Use by Women HMO Members With a History of Childhood Abuse and Neglect” (1999) 56 Arch. Gen. Psychiatry 613.

⁵⁹ Leonard Shengold, *Soul Murder: The Effects of Child Abuse and Deprivation* (New Haven: Yale University Press, 1989).

⁶⁰ Nell Irvin Painter, “Soul Murder and Slavery: Toward A Fully Loaded Cost Accounting” in Linda K. Kerber, Alice Kessler-Harris and Kathryn Kish Sklar, eds., *U.S. History as Women’s History: New Feminist Essays*, (Chapel Hill: University of North Carolina Press, 1995) 125-146.

⁶¹ Law Commission of Canada, *Restoring Dignity: Responding to Child Abuse in Canadian Institutions* (Ottawa: Minister of Public Works and Government Services, 2000), online: <<http://www.lcc.gc.ca/en/themes/mr/irc/2000/html/resotre1.html>> at 14.

residential schools in Canada, suggesting that this type of “historical child abuse” must be considered a present issue.⁶² Furthermore, the legacy of the institutional abuse of Aboriginal children in residential schools is not only the abuse of individual children, but has “influenced the lives of several generations of people.”⁶³

Residential schools for Aboriginal children in Canada have been described as ‘total institutions’⁶⁴ in which the child lives full-time while attending school. In abusive relationships this places the victim entirely at the mercy of the abuser, leading to additional disconnection, degradation and feelings of powerlessness.⁶⁵

Residential schools were created for the purpose of segregating Aboriginal children from their culture so that they could be assimilated into ‘mainstream’ Canadian culture. Aboriginal children were removed from their families and were often severely punished for speaking their own native language or practicing their own religion. As the Law Commission report points out, “Many officials well understood that the residential school system was intended to undermine a culture.”⁶⁶ This has had a profoundly negative effect on native communities.⁶⁷

Given the nature of the child abuse suffered by many in the Aboriginal community, we would expect the consequences to be greater and more severe. Unfortunately, the range of data sources we do have, for example, the OSHUP, does not sample individuals living on Reservations and therefore misses an important part of the Aboriginal population. Thus, while Aboriginals are included in our overall population figures and thus do enter our calculations,

⁶² *Ibid.* at 16.

⁶³ *Ibid.* at 45.

⁶⁴ Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*. (New York: Anchor Books, 1961).

⁶⁵ *Supra* note 61 at 25.

⁶⁶ *Ibid.* at 50.

⁶⁷ *Ibid.* at 54. The report states that students attending the schools were deprived of the opportunity to live as a family within their own culture. In addition, the report also states that the “diminished capacity is reflected in a number of social problems experienced by Aboriginal communities today.”

their higher rates of abuse⁶⁸ and greater consequences and likely costs are not accounted for in the total.

It is important to underline the fact that the trust of victims is even more betrayed by the nature of the institutions where the abuse takes place. Places such as child welfare facilities, hospitals,⁶⁹ and churches are considered to be refuges of protection and safety. Survivors who suffer abuse at the hands of a doctor, priest or teacher may feel that there is nowhere they can turn for help, and can lead to disillusionment with the institution.⁷⁰ Some survivors of institutional abuse by the clergy report that their religious beliefs have been undermined.⁷¹ Increasingly, survivors of institutional abuse perpetrated by clergy are coming forward and seeking redress through the courts. Greeley, a sociologist and priest reported that, “legal fees, settlements and treatment” have recently cost religious institutions more than \$50 million per year.⁷² However, the isolation, degradation and powerlessness felt by survivors of institutional abuse cannot be adequately compensated for with money nor effectively measured by a costing analysis.

There is one other category of individuals who do not enter in our population figure: homeless adults, children and adolescents on the streets. This group also likely has higher rates of abuse and greater costs. It is important to note that the 2001 Census made a serious

⁶⁸ See Emma D. LaRocque, “Violence in Aboriginal Communities” in Mariana Valverde, Linda MacLeod and Kirsten Johnson, eds., *Wife Assault and the Canadian Criminal Justice System* (Toronto: Centre for Criminology, University of Toronto Press, 1995); See also Law Commission of Canada, *supra* note 61, for the effects of institutional abuse on native communities. The report suggests that residential schools have created a legacy of abuse.

⁶⁹ See Andrew Kendrick and Julie Taylor, “Hidden on the Ward: The Abuse of Children in Hospitals” (2000) 31 *Journal of Advanced Nursing* 565-573.

⁷⁰ See Stephen J. Rossetti, “The Impact of Child Sexual Abuse on Attitudes Toward God and the Catholic Church” (1995) 19 *Child Abuse and Neglect* 1469-1481; Elizabeth M. Anderson and Murray Levine, “Concern about Allegations of Child Sexual Abuse Against Teachers and the Teaching Environment” (1999) 23 *Child Abuse and Neglect* 833-843.

⁷¹ Kerry Fater and Jo Ann Mullaney, “The Lived Experience of Adult Male Survivors who Allege Childhood Sexual Abuse by Clergy” (2000) 21 *Issues in Mental Health Nursing* 290.

⁷² Quoted in Fater and Mullaney, *ibid.* at 282.

attempt to count the homeless and it may be possible to include these individuals in future cost estimates.

To conclude, the consequences of child abuse are devastating for the individual child, but also serious for the rest of society. In very direct ways, we all pay the costs of medical services, welfare agencies, policing services, and legal and penal facilities. Indirectly, we are all affected by the fact that survivors of child abuse may be unable to reach their full potential in educational attainment, employability and productivity. They may be more at risk for social dysfunction and criminal activities. In addition, the abused children and their families may incur a great deal in personal costs for such things as legal fees, therapies, and relocation expenses. Whether we are the victim or personally untouched by child abuse, we still pay for its consequences.

V. Methods of the Economic Costing of Violence

A. Background Discussion

The economic costing of the effects of violence began in the mid-eighties. The focus of the first studies was mainly on small-scale program evaluation and it was only in the next decade that researchers started to develop and expand the methodology to large-scale, nationally based estimates of the costs of violence.

An early example is Armstrong, who conducted the first comprehensive economic analyses of a child abuse program in 1983. In his five-step cost-effectiveness analysis, he estimated the costs for the child abuse and neglect treatment program developed by the Family Support Center in Yeadon, Pennsylvania. The total costs to society for the 130 children at risk

for one year, 1978-79, were around US\$508,000. These included only foster-care, health-related costs and special education costs for pre-schoolers.⁷³

In 1998, using the American Humane Society estimate that 23,648 maltreated children in the US experienced serious physical injury in 1978-79, Daro calculated that if half of these children were hospitalized for 5.2 days, the mean length of stay for fractures, the inpatient medical costs would exceed US\$20 million. The costs for rehabilitation and special education in the subsequent year were estimated at US\$7 million. In addition, approximately 18% of substantiated cases of maltreatment received foster care, which would cost US\$475 million in the first year and US\$6.7 million in subsequent years. For adolescent maltreatment victims, Daro estimated that a delinquency rate of 20% would cost US\$14.8 million, assuming these youth would spend an average of two years in a correctional facility. Moreover, many of the long-term consequences of maltreatment could impede future earnings capacity and productivity. Assuming that such losses are incurred only by children with severe injuries, and that the losses are limited to 5 to 10% of the total potential earnings, Daro estimated that child maltreatment results in US\$658 million to US\$1.3 billion in lost productivity annually.⁷⁴

Some of the early attempts to estimate the monetary costs of child abuse were based on limited or questionable data and undemonstrated assumptions. In 1987, Straus and Gelles urged that better methods be developed for using incidence rates as the basis for rough estimates of the dollar costs of violence. They also suggested that mental health and non-medical costs would be much greater than the cost of treating physical injuries.⁷⁵

In the early 1990s the focus of economic costing work shifted from child abuse to violence against women. In Canada this was a consequence of the 1993 groundbreaking

⁷³ K.A. Armstrong, "Economic Analysis of a Child Abuse Program" (1983) 62 Child Welfare 8.

⁷⁴ D. Daro, *Confronting Child Abuse: Research for Effective Program Design* (New York: The Free Press MacMillan Publishing Co. Inc., 1988) at 155-156.

⁷⁵ M. Straus, and R.J. Gelles, "The Costs of Family Violence" (1987) 102 Public Health Reports 638.

Violence Against Women Survey conducted by Statistics Canada. Day was the first to develop a comprehensive methodology for estimating the costs of violence. However, to date, there has not been a study that has been able to undertake a comprehensive national examination of the full range of costs in any country. Using carefully supported assumptions and conservative estimating procedures, Day examined both the short and long-run effects of violence on health-related consequences for women only. The benefit of this model was that it created an estimate of the minimum costs of violence based on extensive research and informed assumptions. The conservative, 'tip of the iceberg' final estimate of this single aspect of violence in 1993 was almost \$1.54 billion.⁷⁶

This path breaking research was followed by Greaves et al, who used the same methodology and expanded the economic costs to include preliminary figures on selected aspects of three additional social categories: social services/education, criminal justice and labour/employment.⁷⁷ Also building upon the Day methodology, Kerr and McLean estimated the partial costs of violence against women in the judicial/legal, social service, health and employment sectors for the province of British Columbia.⁷⁸ Additional studies costing violence against women have been conducted in Australia, New Zealand, Holland, Chile and Nicaragua, Switzerland, and the United States, using a variety of methodological approaches.⁷⁹ Many of

⁷⁶ See Day, *supra* note 4 at 344.

⁷⁷ L. Greaves et al., *Selected Estimates of the Costs of Violence Against Women* (London, Ontario: Centre for Research on Violence Against Women and Children Publication Series, 1995).

⁷⁸ R. Kerr and J. McLean, *Paying for Violence: Some Costs of Violence Against Women in B.C.* (Victoria: Ministry of Women's Equality, Government of British Columbia, 1996).

⁷⁹ Debra Blumel, et al., *Who Pays? The Economic Costs of Violence Against Women* (Queensland: Women's Policy Unit, Office of the Cabinet, 1993); L. Friedman and S. Couper, *The Costs of Domestic Violence: A Preliminary Investigation of the Financial Costs of Domestic Violence* (New York: Victim Services Agency, 1987); R. Kerr and J. McLean; D.J. Korf, et al., *Economic Costs of Violence Against Women* (Utrecht, Netherlands: Dutch Foundation of Women's Shelters, 1997); KPMG Management Consulting for Office of Women's Policy, *The Financial and Economic Costs of Violence in the Northern Territory* (Darwin, Northern Territory, Australia: Office of Women's Policy, 1996); KPMG Management Consulting, *Tasmanian Domestic Violence Advisory Committee: Economic Costs of Domestic Violence in Tasmania* (Melbourne: KPMG Management Consulting, 1994); Louise Laurence and Roberta Spalter-Roth, *Measuring the Costs of Domestic Violence Against Women and the Cost-Effectiveness of Intervention: An Initial Assessment and Proposals for Further Research* (Washington, D.C. Institute for Women's Policy Research, 1996); Helen

them interview small samples of abused women to document their personal costs and usage of various social and legal services. Others confine themselves to the costs of domestic violence only. These studies are often hampered by the lack of national prevalence figures. As Yodanis et al, observe, "For the most part, however, we do not know the prevalence or impact of violence against women on society."⁸⁰ In this respect, Canada is fortunate to have the 1993 Statistics Canada Violence Against Women Survey, internationally recognized as the first such exercise in determining prevalence of all kinds of violence against women across an entire nation.

Research relating to the costs of violence against children returned in the 1990s. An analysis commissioned by the Colorado Children's Trust Fund estimated costs for the State of Colorado for child maltreatment. They concluded that child protection investigations, child welfare services and out-of-home placements alone cost US\$190 million in direct annual costs. Additionally, they estimated US\$212 million for a variety of indirect costs including special education, assistance payments, job training programs, youth institutional and community programs, mental health programs, substance abuse programs, domestic violence shelters and prisons.⁸¹

A similar study by the Missouri Children's Trust Fund in 1997 concluded that over a ten-year period, at least US\$6.9 million was spent on 214 babies who were victims of shaken baby syndrome. The costs included US\$4 million in medical expenses, US\$1.9 million for Family

Leonard and Eva Cox (Distaff Associates), *Costs of Domestic Violence* (Haymarket, New South Wales: New South Wales Women's Co-ordination Unit, 1991); Andrew R. Morrison and Maria Beatriz Orlando, "Social and Economic Costs of Domestic Violence: Chile and Nicaragua" in Morrison and Orlando, eds., *Too Close to Home: Domestic Violence in the Americas* (New York: Inter-American Development Bank, 1999) at 51-80; S. Snively, *The New Zealand Economic Costs of Family Violence* (Auckland: Coopers and Lybrand, 1994); E. Stanko, D. Crisp, C. Hale and H. Lucraft, *Counting the Costs: Estimating the Impact of Domestic Violence in the London Borough of Hackney* (Swindon, Wiltshire, UK: Crime Concern, 1998); Catherine Wisner, et al., "Intimate Partner Violence Against Women: Do Victims Cost Health Plans More?" (1999) 48(6) *The Journal of Family Practice* 439-443.

⁸⁰ Yodanis et al., 266.

⁸¹ M.S. Gould and T. O'Brien, *Child Maltreatment in Colorado: The Value of Prevention and the Cost of Failure to Prevent* (Denver: Center for Human Investment Policy, University of Colorado, 1995) 14, 18.

Services expenditures, and close to US\$1 million in mental health costs. This amounts to approximately US\$32,500 spent on each of the children over the ten years.⁸² A 1992 study by Caldwell for the state of Michigan estimated US\$6 million for special education, US\$16 million for psychological care for the victims, US\$207 million for the juvenile justice system and correction services, and US\$175 million for related adult criminality.⁸³ Irazuzta et al compared cases of child abuse with other admissions to a paediatric intensive care unit for differences in health care costs, severity of illness and mortality. They concluded that child abuse victims were rated as the most seriously ill, and the most costly to treat.⁸⁴ Hyman examined the long-term economic consequences of child sexual abuse in four spheres of a woman's life: physical and mental health, educational attainment and economic welfare. It was found that of the 1,925 participants in the study, the survivors experienced more health and mental health problems than other women, and their earnings had been either directly or indirectly reduced as a result of the abuse by an average of 11.5%.⁸⁵

Most of the studies on the economic costs of child abuse focus only on selected aspects of the costs, in particular regions of the United States. There are however, two comprehensive U.S. nation-wide assessments of costs. The first, from the Children's Safety Network, looked at six areas: medical spending, mental health, future earnings/school, public programs, property damage and quality of life. The last category is by far the most significant cost, and is computed from American court awards for pain and suffering. The costs are also broken down by alcohol and drug involved abuse. The total reported is more than US\$83.2 billion of which

⁸² Lori D. Frasier, Kenneth Bopp and Dale Fitch, *The Economic Costs of Shaken Baby Syndrome Survivors in Missouri* (Jefferson City: Missouri Children's Trust Fund, 1997) 1-2.

⁸³ R.A. Caldwell, *The Costs of Child Abuse Versus Child Protection: Michigan's Experience* (East Lansing: Michigan Children's Trust Fund, 1992) 5-7.

⁸⁴ J. E. Irazuzta, et al., "Outcome and Costs of Child Abuse" (1997) 21(8) *Child Abuse and Neglect* 754-55.

⁸⁵ Hyman, *supra* note 21 at 205.

approximately US\$70.8 billion is attributed to pain and suffering. Since the results are presented only in a summary chart form, it is difficult to assess the accuracy of these costs.⁸⁶

The second cost estimate from Prevent Child Abuse America does not include the cost of pain and suffering. It is also difficult to assess since only the tabulated results and footnoted sources are given. In this study costs are assessed for child abuse and neglect in the United States. Direct costs in the areas of hospitalization, chronic health problems, mental health care, child welfare, law enforcement and judicial are calculated as well as indirect costs of special education, mental health and health care, juvenile delinquency, lost productivity and adult criminality. The total costs assessed for one year are almost US\$9.1 billion.⁸⁷

B. Methodology

Costing child abuse presents unique problems. To begin with, we do not have reliable figures on the number of children who have suffered abuse. Unlike other forms of violence, there are no national surveys that estimate the prevalence of abuse among children. There are adult retrospective surveys, such as the Badgley Report⁸⁸ or the OHSUP, that provide important tools for analyzing the costs of the long-term effects of maltreatment, but they do not allow us to estimate the immediate costs. Moreover, because the consequences of child abuse pervade so many different areas, no complete national data exist that effectively document the costs attached to the consequences of abuse. Even for areas clearly connected with child maltreatment, it is sometimes difficult to isolate costs. For example, although the cost of trying

⁸⁶ "Cost of Child Abuse and Neglect in the United States" Children's Safety Network, Economics and Insurance Resource Center, 1997, online: <<http://www.edarc.org/pubs/can/us-can.htm>>

⁸⁷ Suzette Fromm, "Total Annual Cost of Child Abuse and Neglect in the United States" (Chicago: Prevent Child Abuse America, 2001),

⁸⁸ See R. Badgley, *Report of the Committee of Enquiry into Sexual Offences Against Children and Youth* (Chaired by R. Badgley), (Ottawa: Ministry of Justice and Attorney General and Ministry of National Health and Welfare, 1984).

someone in court for child abuse is a direct consequence of maltreatment, because the actual charges laid are named as general charges such as assault, we have no way of knowing specifically the number of child abuse related trials held in a given year.

How we determine economic costs also depends on the time frame being considered. Researchers generally aim to estimate the annual costs of abuse. Ideally, costs could be calculated for every year and changes could be observed over time. However, any costing study is limited by the data available for use. Most data sources are collected infrequently, sporadically, or once only. Therefore researchers must resort to gathering information where it is available, often from various years and jurisdictions, and merging it together using a price index to bring the figures to a common year.

We have employed four main methods of cost estimation in working with the available data:

Method I:

Method I allows for the most accurate calculation. However, the appropriate data necessary for this method are extremely difficult to come by, because it requires the exact number of relevant units and the corresponding cost per unit. One example might be the personal cost of prescription drugs. If it was known that survivors of child abuse purchase five bottles of anti-depressants per year more than an adult without a history of abuse and the cost per bottle was \$1, we could assess the costs of abuse in this area as \$5 per victim. Multiplying \$5 by the number of abuse survivors in the adult population would yield a total cost for pharmaceutical expenditures as a result of abuse. Because it is so difficult to obtain data with the degree of exactitude required to employ this method, it is often used in conjunction with certain assumptions about the costs (see Method III). Under ideal circumstances, this method would be applied for estimation in all areas.

Method II:

The second method is slightly less accurate, but the information needed is generally more easily obtained. Instead of working from the bottom up, from the costs for each abused individual, this approach is top down, from more general costs. For example, a percentage of a government program or department is deemed to be related to child abuse and then that percentage is applied to the total budget of that program or department. Once again, taking the case of pharmaceutical costs, if it was known that 10,000 people per year purchased anti-depressants, 2,000 of which were to cope with abuse related psychological problems, then we would estimate that 20% ($2,000/10,000$) of total anti-depressant sales are abuse related.

This methodology, however, assumes that costs are evenly distributed between the abused and non-abused populations. In the case of pharmaceuticals this assumption makes sense. There is no reason to believe that survivors of child maltreatment pay a different price per bottle of anti-depressants than would anyone else. For some circumstances, however, this assumption does not apply. In the event that abused persons pay *more* per unit, then this method may still be employed as it presents an underestimate of costs. Should the per unit cost be *lower* than the average, however, then this method cannot be used.

Method III:

Method III is employed whenever there is no clear per unit cost or when the application of the percentage of an overall cost that pertains to abuse is either not known or is not accurate. Under these circumstances, a minimum per unit cost or percentage is used to complete the calculation on the basis of the supporting data. A scenario that would require this method would be, for example, if it was known that abused persons purchased five more units of pharmaceuticals than non-abused persons, but it was not known which types of drugs were being purchased. In this case, the consequences of abuse identified by the literature become extremely important. Through an examination of the reported problems of survivors of child

maltreatment, we can investigate which drugs are often prescribed for those particular concerns. Therefore, if we know that abused persons suffer from depression, we can research the costs of drugs commonly used to treat that condition. From that point, we can assume a per unit cost of the drugs and multiply it by the incidence rate. The important point here is to ensure that the assumed cost is an underestimate. For example if there are three drugs commonly prescribed for depression, costing \$5, \$2 and \$1, and no information exists to tell us which of the three are more commonly used by abuse survivors, we would assume a per unit cost of \$1. This is to ensure that a conservative estimate is derived from the available data.

Method IV:

In the event that no data exist to permit even an assumed cost, no estimate is made. This does not mean that the cost is eliminated completely from the analysis. Although we cannot safely assign a numerical value that enters into the final total, it is important to identify through the supporting literature that the cost does in fact exist. For example, if it were known that abuse survivors suffered from depression and that depression is commonly treated with prescription drugs but it was *not* known what percentage of the abused and non-abused population suffered from depression, how often and what kind of drugs are prescribed for abuse sufferers and the cost of those drugs, we would be unable to estimate this cost. This method therefore describes the information relevant to the cost area, but does not provide a cost calculation.

In many cases a combination of the above methods is employed to provide the most accurate picture possible, although we primarily rely on the first two methods of economic costing.

Time Frame

In addition to the four methods of calculating costs, it is important to consider over what length of time the costs will be calculated. Three styles of modelling exist relating to time frame: the prevalence-based model, the incidence-based model and the life-cycle model.

In prevalence-based modelling, the costs resulting from past and present child abuse are determined for a given year. For each category of costs a prevalence rate must be calculated for the percentage of the population involved. Thus, current victims and survivors of all ages are included, and the method estimates the annual cost to society of all individuals who suffer due to child abuse within a given year, regardless of when the abuse took place. Therefore, the resulting estimates reflect a blend of costs for individuals who have been suffering for various lengths of time and do not isolate any potential differences in costs by stage or duration of abuse.

In contrast, an incidence-based model estimates the present-value of the lifetime costs of present abusers and their victims. It could be used to predict the future effect of changes in the current rates of child abuse. If the current rate of abuse falls, so would the future costs. However, such a model requires sophisticated data sources as well as assumptions about future technology, demographic changes, medical advancements, and interest rates. Therefore they appear more as a technical prediction than an actual snapshot of society.⁸⁹ This approach for estimates of “what could be” was incorporated in a study conducted in Allegheny County, Pennsylvania. The study determined the potential savings obtainable by transforming high-risk neighbourhoods into average ones. The analysis concluded that the county would save approximately US\$416.3 million if these costs were discounted over a 20 year time frame.⁹⁰

⁸⁹ See M. Knapp, ed., *The Economic Evaluation of Mental Healthcare* (Cornwall, UK: Hartnollis Ltd., 1995).

⁹⁰ See C. Bruner, *Potential Return on Investment from a Comprehensive Family Center Approach in High-risk Neighborhoods: Background Paper, Allegheny County* (Des Moines: Child and Family Policy Center, 1996).

The third style, the life-course model, is used to estimate the long-term consequences of child abuse on earnings over the individual's lifecycle. From this perspective, the key to identifying long-term monetary costs of abuse is found by determining the psychological and physical consequences of child abuse for individual victims and abusers, and the sequence of behaviours or experiences that link abuse to later income attainment. An example of this is found in Hyman's examination of the lifetime earnings of lesbian women who were abused as children. As cited above, she linked these income effects to the negative consequences of child abuse for women's physical and mental health and their acquisition of education.⁹¹

Our model makes use of the prevalence-based approach. We estimate the direct and indirect costs of immediate and long-term consequences of child abuse in Canada for the year 1998. We do not attempt to include a measure of the losses associated with deaths of children, nor do we include any estimate for the pain and suffering of the victims. Although Canadian courts attempt to do this for the purpose of assessing and awarding damages to victims, we limit our work to measuring actual places in society where a dollar has been spent as a direct or indirect consequence of child abuse. The only place where we estimate hypothetical dollars lost as a result of abuse is in the reduced earning capacity of the survivors. This seems acceptable since employment is measured in dollars by society. However, we do not put a dollar value on a child's life or on the anguish experienced by abused individuals, although we recognize that the costs of these are nonetheless real.

Finally, every effort has been made to ensure that the costs provided are a conservative and reliable estimate of the actual costs of child abuse, both to society and to the individual victims.

⁹¹ Hyman, *supra* note 21 at 200-201.

VI. The Economic Costs of Child Abuse in Canada

A. Prevalence

In order to measure the costs of child abuse, it is important to first determine its prevalence. Rates for different forms of child maltreatment can vary, depending on where and by whom they are collected. This is partly due to the fact that there are limitations inherently associated with gathering information regarding child abuse. It is possible to know how many children are reported to the police or child welfare agencies, but these are likely to be the more extreme cases that may represent multiple forms of abuse or multiple incidents of abuse. The hidden aspects of violence against children mean that potentially, many cases of abuse are never made public.

There are important ethical issues involved in asking a general population of children detailed questions about maltreatment. Should a child reveal abuse, the necessity of strict reporting requirements to authorities makes it impossible to ensure the confidentiality of results. Retrospective surveys of adults are a partial solution to this dilemma, but they have their own drawbacks. They capture only those adults who remember their abuse and are willing to report it. It has been estimated that as many as two-fifths of adult respondents may not report childhood abuse due to minimizing, denial and amnesia.⁹² Even so, the rates of measured abuse are high.

⁹² L.M. Williams, "Recall of Childhood Trauma: A Prospective Study of Women's Memories of Child Sexual Abuse" (1994) 62 *Journal of Consulting and Clinical Psychology* 1167-1176, quoted in Harriet L. MacMillan, et al., "Prevalence of Child Physical and Sexual Abuse in the Community" (1997) 278 *Journal of the American Medical Association* 135.

Adult Survivors

For the purposes of this study two prevalence figures are used. The first is drawn from the OHSUP which interviewed a representative sample of 9,953 adults between the ages of 15 and 64 living in Ontario.⁹³ The sample was drawn from participants in the Ontario Health Survey and consisted of individuals living in private homes. It excludes individuals living in institutions, homeless people, and Aboriginal people living on reserves. The main purpose of the survey was to assess the mental health of the respondents and to detect the presence of any mental health disorders, whether the participants were aware of it themselves or not. The questionnaire was very detailed and comprehensive, including sections on socio-demographic background, employment, education, the use of health services and the self-reported incidence of abuse experienced in childhood.

Information on abuse was collected via a self-administered sub-questionnaire that did not ask directly about past abuse but rather about potentially abusive acts committed against the person during childhood. The individual was asked to identify whether any of a set of acts had ever happened and, if so, how often. Physical abuse was then identified if, while growing up, the respondent had been pushed, grabbed, shoved or had something thrown at them; if they were hit with something; or if they were kicked, bit, punched, choked, burned, scalded or physically attacked by an adult. They were further asked whether these acts occurred rarely, sometimes or often. Sexual abuse was identified if an adult had exposed themselves on more than one occasion, had threatened intercourse, touched sexual parts of the body or tried to have sex with the respondent. No questions were asked about emotional abuse, neglect and child witnessing of violence and therefore these elements of child maltreatment are not part of the prevalence figures that we report below.

⁹³ People over 64 were excluded due to low mental disorder prevalence rates and people aged 15 to 24 were oversampled. Weights were used in the analysis to account for this oversampling.

Overall, 33% of male respondents and 27% of females interviewed reported that they had experienced either physical or sexual abuse while they were growing up. Physical abuse was found to be more common in males (31.2% versus 21.1% of female respondents) and the prevalence of sexual abuse was higher for females (12.8% versus 4.3%).⁹⁴ Comparatively, the 1984 Badgley Report, an adult retrospective survey of child sexual abuse, found that “at sometime during their lives, about one in two females and one in three males have been victims of unwanted sexual acts” and of these approximately “four in five of these incidents first happened to these persons when they were children or youths.”⁹⁵ When limited to severe sexual abuse, the figures decline to 17.6% of females and 8.2% of males.⁹⁶ Although this survey, unlike the OHSUP, is nationally representative, we have opted in favor of the OHSUP because it is more recent and encompasses physical as well as sexual abuse. The OHSUP prevalence rates are used for calculations that pertain to the costs experienced by adult survivors of child abuse, not to be confused with the immediate costs of current victims. Applying the prevalence rates found in the OHSUP to the over-15 Canadian population in 1998⁹⁷ yields **3,866,377** abused men and **3,285,011** abused women (**7,151,388** total).

Child Victims

To calculate the immediate costs of child abuse, a second figure is required to describe the prevalence rate for children under the age of fifteen. Such a rate is difficult to calculate because there is no national survey of children that asks questions pertaining to abuse. As we observed earlier, the confidentiality of child respondents cannot be assured due to laws that mandate the reporting of known incidents of child abuse. Therefore, researchers have used

⁹⁴ MacMillan et al., *supra* note 92 at 131.

⁹⁵ See Badgley, *supra* note 88 at 175.

⁹⁶ MacMillan, et al., *ibid.* at 134.

⁹⁷ Statistics Canada, “CANSIM Matrices 6367-6378 and 6408-6409” (2001), online: <http://www.statcan.ca/english/Pgdb/People/Population>.

alternate methods to calculate the prevalence of child abuse. Police reports have sometimes been used, but these are known to vastly undercount the number of child abuse victims because many incidents of maltreatment are never brought to police attention.⁹⁸ More recently, social welfare agencies that deal with child abuse cases have become a valuable source of information.

One excellent source is Trocmé et al's "Canadian Incidence Study of Child Abuse and Neglect" (CIS). This study estimates that there were 135,573 investigations of child maltreatment in 1998, and that 67% were either substantiated or suspected cases of child abuse.⁹⁹ The CIS defines a 'child' as someone under the age of 16. This figure represents just over 2% of the Canadian child population. Substantiated cases refer to investigations in which the attending social welfare agent found evidence of abuse and suspected cases are defined as investigations in which the investigator suspected abuse, but could not find definitive evidence to support a 'substantiated' conclusion. Unsubstantiated cases, those in which the investigator found no evidence or reason to suspect child abuse, are eliminated from our study entirely. It is important to note that, because the CIS counts the number of child *investigations* by social services rather than the number of investigated children, it is possible that some children are counted twice in the survey. Of the cases analyzed, 22% had been involved in child abuse investigations at some other time, possibly within the same calendar year.¹⁰⁰ We therefore remove these repeat investigations from the inflow calculation below to minimize double counting.

Trocmé et al report an incidence rate of 21.52 investigations per 1,000 children in Canada¹⁰¹ of which the majority were cases of neglect (40%) followed by physical abuse (31%)

⁹⁸ Statistics Canada, *Family Violence in Canada: A Statistical Profile 2000*, 9.

⁹⁹ *Supra* note 5, Table 3-1 at 27.

¹⁰⁰ *Ibid.* at 22.

¹⁰¹ *Ibid.* Table 3-1 at 27.

and emotional maltreatment (19%).¹⁰² Investigations of sexual abuse were the least common accounting for only 10% of investigations.¹⁰³ The cases reported in the CIS represent only the inflow of child investigations for 1998. They do not, however, account for children who were investigated in previous years – what economists refer to as a ‘stock’. That is, a five year old who suffered abuse two years previously would not be included in the CIS incidence rate. Because child abuse is attached to long-term effects that will influence a child’s life beyond the year in which they are abused, it is necessary to calculate a reasonable estimate of the stock of abused children.

In order to obtain this number, the percentage of children who are investigated at a given age is added to the sum of the inflow rates for all younger age groups and then multiplied by the number of children in that age group. For example, to calculate the number of three year olds who have ever been abused we need to add the number of children who were abused before the age of three (the stock) to those that are currently being abused (the inflow). To calculate the former we add the inflow rates for 0, 1 and 2 year olds and then multiply the sum by the population of three year olds. For the latter calculation, we multiply the percentage of three year olds investigated in a year (with substantiated or suspected outcomes) by the population of three year olds. Adding the stock and inflow totals together gives us an estimate of the total number of abused three year olds.

Following the above method, it can be estimated that **434,409** children were victims of current or past abuse in 1998– 48% of these are boys and 52% girls.¹⁰⁴ This is approximately 6.89% of the 1998 child population in Canada (see Appendix III). The prevalence rate for girls at 7.35% is slightly higher than the rate of 6.46% for boys. We further note that by this

¹⁰² *Ibid.* Table 3-3 at 29.

¹⁰³ *Ibid.* Table 3-3 at 29.

¹⁰⁴ Calculations made by authors using a special data request from Trocmé. We wish to thank Nico Trocmé for his assistance with generating this data. Authors' calculations are available upon request.

calculation, at age fifteen 11.64% of boys and 18.88% of girls are classified as abused. Because these estimates are significantly less than the adult prevalence rates reported by MacMillan from the OHSUP – 33% and 27% for men and women respectively, they are not only reasonable estimates but are also likely underestimates. Moreover, since the OHSUP prevalence rates pertain only to physical and sexual abuse, whereas the CIS also includes emotional abuse and neglect, we can be further assured that we are not over-estimating the rate of abuse among children. Note also that for boys, the prevalence rate of abuse at age 15 is less than the prevalence of severe abuse (13.2%) among adult males found in the OHSUP. For girls, the prevalence rate of abuse for fifteen year olds is only slightly higher than the prevalence rate of severe abuse for females reported in the OHSUP (18.88% versus 15.9%).

We now turn our attention to the calculations of the actual costs of child abuse. The calculations and the data that support them are outlined in the following section. For a complete delineation of the costs calculated in the subsequent sections, refer to Appendix III.

B. Cost Calculations

1. Judicial

A direct cost of child abuse to society results from police investigation, court costs and the penalties for perpetrators of this crime. Most cases of child abuse that are brought to the attention of the police and the courts involve charges of physical or sexual assault as well as uttering threats and negligence. Each part of the process, from notifying police of the crime to punishing the offender and compensating the victim, results in a measurable cost to society or the individual. Much of the data used in this section come from the UCR2 survey and various government publications. In the absence of specific numbers regarding such items as trial costs, Method II is used frequently. In some cases, such as incarceration and parole costs, in which data on the number of prisoners are partially available, Method I is used to its fullest extent.

Police Costs

In order to calculate police costs we use information on the fraction of police investigations that have child victims. Unfortunately there are no data on the cost per child investigation. Therefore, we employ Method II to estimate total police costs and multiply this by the fraction of cases with child victims. In doing so, we implicitly assume that the cost of investigating a child abuse case is the same or larger (to give us an underestimate) than the average cost of all investigations. This is likely not a bad assumption given the sensitive nature of the crime and the extra training most police departments provide to officers dealing with child and domestic abuse situations.

To calculate the fraction of investigations that involve child abuse, we use data from the UCR2 survey, which reports that approximately 60% of reported sexual assaults and 20% of reported physical assaults have child victims.¹⁰⁵ However, many of these involve peer-on-peer violence. That is, both the perpetrator and the victim are under the age of 18. While many of these incidences may constitute child abuse with severe repercussions for those involved, we take the conservative approach of only including those cases with adult perpetrators. After removing peer-on-peer violence the UCR2 survey indicates that 41.4% of reported sexual assaults and 8.73% of reported physical assaults involve an adult perpetrator and a child victim.¹⁰⁶ The survey further shows that 0.96% of reported offences are sexual assaults and

¹⁰⁵ Statistics Canada, *Family Violence in Canada: A Statistical Profile*, 2000, Table 4.1, 32.

¹⁰⁶ These figures come from a special run using the UCR2 data calculated by The Canadian Centre for Justice Statistics at Statistics Canada and are available upon request of the authors. Our thanks to Holly Johnson of Statistics Canada for obtaining this data for us. It should be noted that, due to the construction of the relational database that constitutes the UCR2, a small proportion of victims and accusers will be double counted. This occurs when there are multiple victims or multiple accusers in a single incident. For instance, in an incident where there are two victims and one accused, the accuser will be counted twice as both offences are reported. Information from the Centre for Justice Statistics suggests that this form of double counting is small and, therefore, we ignore it in our calculations.

8.94% are physical assaults.¹⁰⁷ Therefore, approximately 1.18% of reported offences relate to child abuse.

Police costs in the 1997-1998 fiscal year were approximately \$6 billion.¹⁰⁸ Applying the percentage of offences resulting from child maltreatment to the total cost¹⁰⁹ yields an estimate of police costs related to child abuse of \$70.8 million (1.18% of total costs). Using the Consumer Price Index (CPI) to adjust from 1997 dollars to 1998 dollars, we estimate the total policing costs related to child abuse at **\$71,457,732** for 1998.

Court Costs

Once the police have investigated an incident of child abuse, charges may be laid and the case then proceeds to court. As with policing costs, there is no information on the exact cost per trial, but there is information on the total expenditures across Canada on adult criminal trials. Here again, we assume that the cost of a trial for an offence relating to child abuse is no more than that of an average trial, and apply Method II. Again, it is likely that such trials cost more due to the seriousness and violence of the crime and the sensitivity of the issues surrounding child testimony. Therefore, to calculate court costs, we estimate the percentage of criminal trials that pertain to child abuse and then apply that percentage to total expenditures on adult criminal trials.

In order to calculate this percentage, we employ data from Manitoba because it is the only province which collects data on the number of child abuse cases. In 1991, Manitoba

¹⁰⁷ Statistics Canada, "Uniform Crime Reporting Survey: CANSIM matrix 2200, Catalogue no 85-205-XIB", 2000.

¹⁰⁸ Statistics Canada, *Police Personnel and Expenditures in Canada 1997–1998* (Ottawa: Minister of Industry, 1999) at 3.

¹⁰⁹ We note that reported offences take into account all criminal offences from traffic violations, theft and misdemeanours to homicide. However, not included in this calculation is police time and expenditures spent on activities that are not related to criminal offences such as traffic control. The extent to which these activities make up a significant portion of the police budget, and therefore potentially bias our estimate upward, is unknown.

established a separate system of courts to deal with charges of family violence, including child abuse, called the Family Violence Court (FVC). There are three assumptions that must be made to estimate the court costs related to child abuse using this data. First, the available data from the FVC caseload are from 1991 and 1992 and therefore we must assume that the proportion of all cases that are related to child abuse has not changed or been reduced since the early 1990s. Second, because these data come from Manitoba, we must assume that the percentage of criminal cases with child victims is similar across the rest of Canada. Finally, because it is the only province that does not report its criminal caseload to a central authority, we must calculate the total number of adult criminal cases in Manitoba on the basis of the national average, thereby assuming that Manitoba courts do not differ significantly from the rest of Canada in terms of the number of cases per capita that come to trial.¹¹⁰

In 1991 and 1992, the FVC heard 4,460 cases of which 733 or 16.4% pertained to child abuse.¹¹¹ In 1998/99, a national average of 16.27 adult criminal cases were tried per 1,000 members of the Canadian provincial population, less Manitoba.¹¹² If we multiply the case rate of 16.27 times the population of Manitoba in thousands we get an estimated 18,514 total adult

¹¹⁰ We acknowledge that two factors might challenge these assumptions. The first is that a greater percentage of Manitoba's population is Aboriginal, particularly as compared to the east coast of Canada. There is a disproportionately high rate of domestic violence in Aboriginal communities, widely recognized as being related to, among other factors, the negative effects of the residential school experience and related family and community dysfunction. If these cases are brought to trial, they will enter the Manitoba figures on the number of family violence cases and the resulting figures on the number of child abuse cases. This will then result in an overstatement of the percentage of child abuse cases at a national level, since the differing trial rates across Aboriginal and non-Aboriginal populations would not be taken into account. The second factor is that a greater number of domestic violence cases may come to trial in Manitoba due to the special nature of the courts. We have no way of knowing if this might indeed be true. We note that Ontario also has domestic violence courts, but has not released any statistics from them relating to cases of child abuse. [See Sharon Moyer, et al., *The Evaluation of the Domestic Violence Courts: Their Functioning and Effects in the First Eighteen Months of Operation, 1998 to 1999* (Toronto: Ministry of the Attorney General of Ontario, 2000)] Given that only Manitoba provides figures on the number of cases relating to child abuse, we are faced with only two choices. We can either use the Manitoba data and include court costs for child abuse in our final total or not include any court costs at all. We have opted for the first approach.

¹¹¹ Jane E. Ursel, *Winnipeg Family Violence Court Evaluation* (Toronto: Micromedia Ltd., 1995), Table 2.3 at 12.

¹¹² Statistics Canada, *Criminal Prosecutions, Resources, Expenditures and Personnel, 1998/99* (Minister of Industry, 2000), Table 5.

criminal cases in Manitoba in the 1998-1999 fiscal year. Dividing the annual number of child abuse cases in Manitoba by this number yields an estimate that 1.98% of all court cases in Manitoba are related to child abuse.

According to the 1998/99 report on criminal expenditures in Canada, \$278,284,400 was spent on criminal prosecutions in that fiscal year.¹¹³ These costs include salaries for public employees, administrative costs and other costs such as expert testimony and witnessing. Using the Manitoba figure of 1.98% and applying it nationwide yields **\$5,510,031** as the amount spent on child abuse by the courts. Adding this to police costs gives a subtotal of **\$76,967,763**.

Legal Aid

In the event that a defendant cannot afford representation in court, Legal Aid assists. The majority of Legal Aid expenditures are paid to lawyers and other support staff to provide legal services in the courtroom. Because it is funded primarily by the federal and provincial governments, use of Legal Aid monies to defend persons accused of child abuse represents a cost to society. The remainder of Legal Aid revenues come from client contributions and recoveries from settlements. These costs are not included in this section, but rather under personal costs as they represent an expense to the defendant, not to society at large. Total Legal Aid expenditures in the 1998/99 fiscal year for the provinces were \$494,400,000.¹¹⁴ Of this amount approximately 44%, or \$217,536,000¹¹⁵ was spent on criminal trials. Because we do not know precisely how much of this was spent on child abuse related trials, we apply the 1.98% of criminal court trials that involve child victims from the previous section. This results in

¹¹³ *Ibid.* Table 3.

¹¹⁴ Statistics Canada, *Legal Aid in Canada: Resources and Caseload Statistics 1998-99* (Ottawa: Minister of Industry, 1999) at 11.

¹¹⁵ *Ibid.* Table 5. Legal Aid expenditures are divided into two categories: direct legal and administrative. Of direct legal expenditures by Legal Aid, 44% was used for criminal trials. We assume that same percentage can be applied to administrative costs to assess the amount of administrative costs used for criminal trials.

an estimate of \$4,307,213 of Legal Aid expenditures that were directed towards child abuse cases. Subtracting from this amount the 3%¹¹⁶ of expenditures that are financed by the client, leaves **\$4,177,997**. This gives a running total of **\$81,145,760**.

Criminal Injuries Compensation Board

The Criminal Injuries Compensation Board (CICB) awards government compensation for those who have suffered injury as a result of violent crimes against them. Costs that can be compensated include therapeutic expenses, financial losses resulting from injury, and pain and suffering.¹¹⁷ In this case, we have information on the exact number of the amounts awarded for physical and sexual assault, but we have to make assumptions regarding the percentage of those awards that are allotted in incidences of child abuse. Namely, we assume that the proportion of assaults directed at children that are *reported* to police is an accurate representation of the division of CICB awards.

In the first quarter of the 1999/2000 fiscal year, \$624,000 was awarded in compensation for victims of sex crimes (34.5% of all awards) and \$649,600 was awarded to victims of physical assault (35.9% of total).¹¹⁸ The UCR2 survey indicates that 51.97% of reported sexual assaults and 10.74% of reported physical assaults committed by adult perpetrators have child victims.¹¹⁹ Applying these percentages to the CICB data and multiplying by four to annualize the figure suggests that approximately \$1,297,171 is awarded for sexual assault of children and \$279,068 for physical child abuse. Therefore, the CICB is estimated to have spent \$1,576,239 on child

¹¹⁶ *Supra* note 114 at 11.

¹¹⁷ Nathalie Des Rosiers et al., "Legal Compensation for Sexual Violence: Therapeutic Consequences and Consequences for the Judicial System" (1998) 4 *Psychology, Public Policy and Law* 433-451.

¹¹⁸ *Annual Report: Criminal Injuries Compensation Board* (Ottawa: Ministry of the Attorney General, 2000), Table 9, 19.

¹¹⁹ UCR2 survey, special run, Statistics Canada. Results available upon request.

abuse in 1999. Correcting this figure to 1998 dollars yields a cost of **\$1,549,128**. The current subtotal of child abuse costs is then **\$82,694,888**.

Penal Costs

Incarceration costs related to the punishment of those who commit child abuse is perhaps one of the more obvious economic costs of child maltreatment. Less obvious is the number of prisoners whose incarceration is related to having been abused as a child. We make both calculations using a combination of Method I and II. The former relies on federal and provincial penitentiary data on the number of offenders in prison who have committed physical or sexual assault, while the latter relies on survey data of prisoners. Unfortunately, these data do not distinguish between child and adult victims, and, therefore, we must rely on the UCR2 survey for estimates of the proportion of these inmates who have assaulted children. We therefore assume that the proportion of child victims of assaults remains constant from the reporting stage, when the UCR2 data are collected, through to imprisonment and parole. While we recognize that this is likely not the case, we proceed with the data available in order to get some notion of the penal costs related to child abuse offenders.

When calculating the imprisonment costs related to inmates with a history of child abuse, we attempt to calculate the number of prisoners who would not be in prison if they had not been abused. To do so we calculate the rate of imprisonment among abuse survivors and compare it to the rate among those not abused, and then assume that if the abuse survivors had never been abused they would have the same imprisonment rate as the non-abused population. Implicitly we are assuming that the determinants of abuse that also affect criminal behaviour and the likelihood of imprisonment are distributed the same across both populations. If this is not the case and the abused population contains more risk factors in addition to their history of abuse, then we will overestimate the benefit of removing abuse and our cost estimates will be overstated. To correct for this we would need representative, individual level data containing

information on imprisonment as well as the determinants of criminal behaviour including abuse histories. With such data we could isolate the independent effect of abuse on imprisonment, taking into account all other factors. Since no such data exist, we proceed with our calculations but caution the reader that they may slightly overstate the costs.

Federal Incarceration

In the 1998/99 year, the average inmate population in federal custody was 13,178.¹²⁰ The cost per year for an inmate in the 1998/99 fiscal year was \$59,661 for males and \$113,610 for females.¹²¹ Using the 1996 census of the inmate population in Canada we can determine the fraction of inmates that were incarcerated for assault. According to the survey, approximately 2% of inmates are female and 98% are male.¹²² Of the male offenders, 14% were incarcerated for a sexual assault and 4% for a physical assault.¹²³ The UCR2 survey indicates that of reported sexual assaults where the perpetrator was an adult, 51.97% had child victims.¹²⁴ Further, Correctional Services Canada reports that of 33 women sex offenders studied, 76% had child victims.¹²⁵ With respect to physical assault, the UCR2 indicates that 10.74 % of reported physical assaults by adult perpetrators were committed against children.¹²⁶ Assuming that the percentage of those charged as reported in the UCR2 is the same as those ultimately imprisoned, we estimate that the percentage of males incarcerated because of offences relating

¹²⁰ Statistics Canada, *Adult Correctional Services in Canada 1998-99* (Ottawa: Minister of Industry, 2000) Summary Table 1, 11.

¹²¹ *Basic Facts About Federal Corrections, 2001*. (Ottawa: Correctional Service Canada, 2001) online: <<http://dsp-psd.pwgsc.gc.ca/Collection/JS82-17-2001E.pdf>>

¹²² Statistics Canada, *One-Day Snapshot of Inmates in Canada's Adult Correctional Facilities* (Ottawa: Ministry of Industry, 1998) Table 2, 5.

¹²³ Statistics Canada, *One-Day Snapshot of Inmates in Canada's Adult Correctional Facilities*, Table 6, 10.

¹²⁴ UCR2 survey, special run, Statistics Canada. Results available upon request.

¹²⁵ Canada Correctional Services, *Case Studies of Female Sex Offenders in the Correctional Service of Canada*, online: <www.csc-scc.gc.ca/text/pblct/sexoffender/female/female-05.shtml#P288_45254, 1999>

¹²⁶ UCR2 survey, special run, Statistics Canada. Results available upon request.

to child sexual and physical abuse is 7.28% and 0.43%, respectively. Multiplying the sum of these percentages (7.71%) by the average number of male inmates in 1998 yields 996 men incarcerated for child abuse.

As stated above, one of the possible long term consequences of abuse is an increase in criminal activity. Correctional Services Canada reports that 39.6% of male inmates in federal prisons have a history of physical or sexual abuse and 50.2% experienced some form of abuse or witnessed abusive behaviour in their homes.¹²⁷ Because we consider child witnessing of abuse in itself to be a form of abuse, we use the larger figure. Thus, of the 12,914 males in federal prison, 6,483 have a history of abuse. This amounts to 0.1667% of the adult male abused population.

This federal imprisonment rate for abused males can be compared to an analogous rate for non-abused males. Dividing the number of male inmates who do not have a history of abuse by the non-abused population yields 0.0819%. The difference between these two rates is 0.0858%. Using the assumptions noted above and applying the rate differential to the abused population, we estimate the number of inmates whose incarceration is likely related to a history of child abuse to be 3,317 men.

From this number, we subtract those inmates with abusive histories who themselves have committed child abuse as they have already been counted in the perpetrator calculation. Of inmates with abusive backgrounds, 11.9% have committed child abuse.¹²⁸ Multiplying this percentage by the calculated number of male inmates with an abusive background at the federal level gives us 395 men who are both victims and perpetrators of abuse. Therefore, we estimate that the incarceration of 3,918 male inmates (996+3,317-395) in federal prisons is

¹²⁷ Robinson, David and Jo-Anne Taylor, *The Incidence of Family Violence Perpetrated by Federal Offenders: A File Review Study*, (Ottawa: Correctional Services of Canada, 1995), Table 10. online: <http://www.csc-scc.gc.ca/text/pblct/fv/fv03/toce_e.shtml>

¹²⁸ *Ibid.* at Table 17.

either related to their histories of abuse or is the result of having abused children. At an annual cost of \$59,661 per male inmate, **\$233,751,798** was spent in 1998 on federal prison costs for men related to child abuse.

Turning now to females, the statistics show that 1% had committed a sexual assault and 10% a physical assault.¹²⁹ Using the UCR2 percentages of reported adult cases that have child victims, the percentage of women incarcerated for child abuse is 0.52% for sexual assault and 1.07% for physical assault. Applying the sum of 1.59% to the average female inmate population of 264 yields 4 women in federal custody for child abuse.

Once again we must also account for those whose incarceration is likely related to their history of child abuse. A 1999 review of the federal offender intake assessments for women reveals that 60.5% were victims of child abuse.¹³⁰ This amounts to 0.0049% of the female abused population. Conversely, approximately 0.0012% of the female non-abused population are imprisoned. Multiplying the difference of 0.0037% by the abused population yields an estimated 122 women whose imprisonment is related to their abuse history. From this number we subtract the 4 women offenders who are incarcerated for child abuse leaving 118 female survivors. The total number of federal female prisoners who are either imprisoned for child abuse or whose imprisonment is related to their own past abuse is then 122 (4+122-4). The total cost is calculated at 122 x \$113,610 or **\$13,860,420**. Adding this to the cost of the male prisoners gives us **\$247,612,218** as the cost of federal incarceration.

¹²⁹ *Supra* note 123.

¹³⁰ Gordana Eljdupovic-Guzina, *Parenting Roles and Experiences of Abuse In Women Offenders: Review of the Offender Intake Assessments*. (Ottawa: Correctional Services Canada, 1999) at 28, online: <http://www.csc-scc.gc.ca/text/prgrm/fsw/gordana/toc_e.shtml>

Provincial Incarceration

The cost of keeping an inmate in a provincial facility is \$122.65/day¹³¹ and the average number of offenders is 19,233.¹³² Of these inmates 7% are female offenders and 93% are male.¹³³ In the male inmate population 7% are perpetrators of a sexual assault and 11% of a physical assault.¹³⁴ Using the UCR2 percentages, we calculate that 4.82% of provincial male inmates are incarcerated for child abuse – 1.18% for physical assault and 3.64% for sexual assault. Multiplying 4.82% by the number of male inmates yields 862 males in provincial jail for child abuse offences.

To account for the costs of prisoners whose imprisonment is related to being abused as a child we use the statistics from the federal prison population and apply them to the provincial prison population. Therefore, we calculate that of the 17,887 males in provincial custody 8,979, or 50.2%, are survivors of childhood maltreatment. Dividing by the adult male abused population generates 0.2322% as the percentage of abused males currently incarcerated in provincial prisons. Of the non-abused male population, 0.1135% is in provincial custody. Taking the differential of 0.1187% and multiplying it by the abused male population yields an estimate of 4,589 males whose imprisonment is related to their histories of child abuse. Of these 4,589 male inmates, we estimate that 546 committed assaults against child victims. Thus the total number of males in provincial prisons related to past or for current child abuse is 4,905 (862+4589-546). At a cost of \$122.65 per day or \$44,767 per year, **\$219,582,135** was spent in 1998 on incarcerating male provincial prisoners.

¹³¹ Statistics Canada, *Adult Correctional Services in Canada 1998-99* (Minister of Industry, 2000) Table 4, 19.

¹³² *Ibid.* Summary Table 1, 11.

¹³³ *Supra* note 123 at Table 2, 5.

¹³⁴ *Supra* note 123 at Table 6, 10.

For female offenders, sexual and physical assault crimes account for 2% and 9% of the provincial prison population, respectively.¹³⁵ Application of the UCR2 percentages for child victims of sexual and physical assault indicates that 1.04% (2% x 51.97%) of females are incarcerated for child sexual assault and 0.97% (9% x 10.74%) for child physical assault. Therefore 2.01% or 27 females are incarcerated for child abuse.

Once again applying the statistic that 60.5% of female inmates were abused as children, 814 are survivors of maltreatment. Dividing by the female abused population generates 0.0248% as the percentage of abused females currently incarcerated in provincial prisons. Of the non-abused population only 0.0060% is in provincial custody. Taking the differential of 0.0188% and multiplying it by the female abused population yields 618 females whose incarceration is related to their history of abuse. Of these 618 female inmates, we calculate that 74 (11.9% x 618) committed assaults against child victims. Since we previously calculated that there are only 27 women in prison for committing child abuse, we find that there are 618 (27+618-27) females incarcerated in provincial prisons related to past child maltreatment or for committing child abuse. At an annual cost of \$44,767, a total of **\$27,666,006** was spent to incarcerate these females.

The total cost of provincial incarceration for both men and women is **\$247,248,141**. Summing the federal and provincial levels gives a total incarceration cost of **\$494,860,359** for child abuse. Adding this amount to the running subtotal yields **\$577,555,247**.

Conditional Release

After an offender has spent time in prison, he or she is released but is kept under some form of community supervision.¹³⁶ There are two main forms of supervision – parole and

¹³⁵ *Supra* note 123 at Table 6, 10.

¹³⁶ We note that there are also over 100,000 offenders on probation, the costs of which are not included in our total.

statutory release- that fall under the heading of conditional release. The average monthly offender count on conditional release is 9,925.¹³⁷ While we do not know how many are violent offenders, we do know that approximately 39% of offenders admitted to probation are violent offenders.¹³⁸ Probation sentencing differs from parole and statutory release in that many offenders do not serve jail time but are instead sentenced directly to probation. Because probation without incarceration is significantly more probable for those who commit non-violent crimes and misdemeanours, the percentage of violent criminals admitted to probation is certainly less than the percentage on parole or statutory release.¹³⁹ Therefore applying the 39% to those under community supervision generates a suitable underestimate. We estimate the number of violent offenders on parole at 3,871.

According to the UCR2 survey, approximately 76% of all reported violent crimes are physical assaults and 8% are sexual assaults.¹⁴⁰ Once again using the proportion of reported assaults by adults that have child victims – 10.74% and 51.97% for physical and sexual assault, respectively – we calculate that 12.32% of violent crimes are related to child abuse. Multiplying this percentage by the number of offenders under conditional release after committing a violent crime gives us a total of 477 offenders on release after serving time for child abuse.

As with incarceration costs, an important component of conditional release costs is the number of offenders whose criminal behaviour is related to their abusive backgrounds. To calculate this cost, we assume that the same percentage of offenders on conditional release have abusive backgrounds as those in prison. Because the conditional release numbers are not broken down by gender, we use the male figure of 50.2% to maintain a conservative

¹³⁷ *Supra* note 131 at Table 5, 13. In 1998-99 there were 7,778 individuals on federal conditional release and 2,147 on provincial/territorial conditional release for a total of 9,925.

¹³⁸ *Ibid.* at Table 16, 34..

¹³⁹ Statistics Canada, *Sentencing in Adult Provincial Courts: A Study of Nine Jurisdictions, 1993 and 1994* (Ottawa: Minister of Industry, 1997) Tables A-4 and A-13.

¹⁴⁰ *Supra* note 107.

estimate. Therefore we multiply the number of offenders on conditional release by 50.2% to obtain 4,982 parolees who are survivors of child abuse, 0.0697% of the abused population. The number of non-abused persons on conditional release is therefore 4,943 or 0.0295% of the non-abused population. Taking the difference of these two percentages and multiplying it by the population of adult child abuse survivors gives us a total of 2,875 persons whose conditional release is related to their history of abuse. Subtracting 11.9% of the 2,875 offenders on conditional release with a history of abuse and adding those on release because of abuse offences gives us a total of 3,010 persons on release due to child abuse. At a per person supervision cost of \$13,000 per year,¹⁴¹ this amounts to a total cost of **\$39,130,000**. This leaves the final tally of judicial costs for 1998 at **\$616,685,247**.

2. Social Services

Social services provide programs directed at dealing with the consequences of abuse after it has occurred as well as programs that attempt to prevent abuse. One could argue that the latter should not be included in the costs of current abuse. However, we think it is important to present all of the costs that are being spent by social services on child abuse and we include these costs in our analysis.

In the private sector, often partially funded by government, organizations such as Big Brothers, Big Sisters, the YMCA/YWCA, shelters for abused women and children and crisis services such as 'Kids Help Phone' help victims of child maltreatment. Some of these services are directed solely at abused children. However, many of these organizations assist other portions of the population as well.

In the public sector, programs that deal with children include adoption programs, residential and social housing services, counselling and support for youths and parents,

¹⁴¹ *Supra* note 121, Content 03, 1.

violence prevention programs, early intervention services, and funding for community safety. Additional services provided by the provinces and territories target troubled youth by providing young offender programs, drug rehabilitation centres and temporary residences for homeless teens.

Many of these difficulties are disproportionately experienced by abused children and they are therefore more likely to access these services. This is supported by data from the OHSUP.¹⁴² Child welfare involvement rates are similar amongst males and females who have never experienced abuse at 1.4%(0.3)* and 1.5%(0.3)*, respectively. However, the rates are much higher for survivors of physical and/or sexual abuse, and the increase is greater for females than for males. The rate of child welfare involvement for female abuse survivors is 9.6%(1.2), while it is 5.8%(0.9) for male abuse survivors. Both differences are statistically significant at the 1% level.

Other problems that are documented in the OHSUP and likely lead to involvement with social services include juvenile delinquency and running away from home. The rate of juvenile delinquency amongst males who were never abused is 3.6%(0.6) while for physically and/or sexually abused males it is 10.2%(1.5). Similarly for non-abused females the rate is 0.6%(0.1)*, while for abused females the rate is 3.2%(0.8)**. In both cases, the differences are statistically significant at the 1% level. The rates for running away from home indicate that, for males and females who were never abused, the rates are similar at 3.8%(0.7)* and 2.8%(0.4), respectively. The increase in rates amongst physically and/or sexually abused males and females is also similar. Abused males and abused females are both more likely to run away at rates 11.5%(1.3) and 11.4%(1.2), respectively. Both differences are significant at the 1% level.

¹⁴² For estimates calculated from the OHS or OHSUP standard errors are in parentheses . A * indicates the coefficient of variation is between 16.6 and 25.0 and a ** indicates the coefficient of variation is between 25.1 and 33.3. If there is no symbol, the coefficient of variation is between 0 and 16.5.

Provincial/Territorial Child Services and Child Protection

In order to calculate the costs associated with government funded social services directed toward child abuse and maltreatment we use information collected from provincial budgets on the amount of money spent on child services and child protection. Since provincial governments in Canada are independent of one another, they report their provincial budgets in different ways. For example, in some provinces and territories the ministry responsible for child protection may also be the ministry responsible for health care. In other provinces, there is a ministry devoted solely to families and children. Provincial totals are thus calculated separately for each province based on the degree of disaggregated information. For those provinces and territories where departments of health and social services were joined and separate figures were not available, we applied estimates of the percentage of health and social services directed at child abuse from provinces where more specific data were available.

Since public social services directed at families and children provide aid and resources to all members of society and not just to child abuse victims, it is not appropriate to count all of the expenditures directed toward children and family programs as a cost of child abuse. Instead, we formulate an estimate of the percentage of program participants that seek out these services as a result of child abuse. To do so we use data from the CIS. Of the original 9,909 case openings, 5,449 (55%) cases involved suspected or reported maltreatment of children. The remainder involved services offered by the agencies that were not related to abuse. The 5,449 cases resulted in a sample of 7,672 children investigated because of suspected maltreatment.¹⁴³ In 67% of those investigations abuse was either suspected or substantiated. Some might argue that all reported or suspected cases of child maltreatment, even unsubstantiated cases, should be included in the social services cost estimate. However, to

¹⁴³ In some jurisdictions cases are counted at the family level while in others each child is counted as a case. This is the reason for the difference in the number of cases as compared to the number of child investigations.

ensure a conservative estimate we use 36.9% (55%x67%) instead of 55% in our calculations below.

In Nova Scotia the Department of Community Services administers two programs through Family and Children's Services specifically dealing with child abuse. The child welfare and residential program provides the community with child protection staff, compiles a child abuse register and looks after adoption and foster care services.¹⁴⁴ Family and Children's Services in Nova Scotia also offers a community outreach program which assists in family violence prevention.¹⁴⁵ In 1999 the child welfare and residential section received 68% of the total budget for Family and Children's Services and the community outreach program received 14% of the total allowance.¹⁴⁶ Thus, the total percentage of the budget for 1999 for Family and Children's Services related to services for children was 82%. To calculate the total estimated expenditure of social services relating to child abuse we take the total 1999 budget for Family and Children's Services which is \$106,021,000¹⁴⁷ and multiply the total by 82%. Applying our figure of 36.9% gives us a total of \$32,079,834 estimated expenditure on child abuse. After adjusting for inflation, the total amount spent on government funded social services related to child abuse in the province of Nova Scotia is **\$31,528,061**.

In Prince Edward Island, the Department of Health and Social Services is responsible for child protection and child welfare services. PEI's "Annual Report for the year ending March 31, 2000" reports that in 1998, the provincial government spent a total of \$58,707,900 on Child and

¹⁴⁴ "Family and Children's Services" Nova Scotia Department of Community Services, online: <<http://www.gov.ns.ca/coms/f&cs.htm>>.

¹⁴⁵ *Ibid.*

¹⁴⁶ Phone conversation with Peter Knoll, Family and Children's Services, Nova Scotia. October 17, 2001 10:30am.

¹⁴⁷ Neil J. LeBlanc, Minister of Finance, "Estimates: Province of Nova Scotia, for the fiscal year 2001-02" (2002) 6.2.

Family and Community Services.¹⁴⁸ This division of the Department of Health and Social Services is responsible for adoption, foster care, child welfare and the reporting of child abuse.¹⁴⁹ Thus, if we apply 36.9% to the total spent on Child and Family Services in PEI, the estimated cost of government funded social services related to child abuse in the province is **\$21,663,215** for 1998.

In New Brunswick, the Department of Health and Community Services funds programs relating to child abuse. The “1998-99 Annual Report” points out that the department of Family and Community Social Services spent \$3,565,000 on program support and \$173,975,900 on community social services.¹⁵⁰ Child protection, child welfare and the prevention of family violence are among the services offered by Family and Community Services.¹⁵¹ By applying 36.9%, we arrive at a total expenditure on government funded social services related to child abuse in New Brunswick of **\$65,512,592**.

The province of Ontario’s Women’s Directorate spent \$18,000,000 on community safety in 1998.¹⁵² The community safety program in the province was designed specifically to reduce violence against women and children, and therefore we include 100% of this figure in our total.¹⁵³ In addition, the Ministry of Community and Social Services spent \$885,000,000 on children’s services.¹⁵⁴ These services include child protection, training of CAS staff, and creating an effective “common technology” for the protection of children.¹⁵⁵ Again we apply

¹⁴⁸ *Annual Report for the year ending March 31, 2000: Department of Health and Social Services* (PEI Department of Health and Social Services, 2000) at 65.

¹⁴⁹ “Health and Social Services: Child, Family and Community Services”, online: <<http://www.gov.pe.ca/hss/cfacs-info/index.php3>> (16/10/01).

¹⁵⁰ *1998-99 Annual Report: Department of Health and Community Services* (New Brunswick: Department of Health and Community Services, 1999) at 56.

¹⁵¹ *Ibid.* at 18-21.

¹⁵² Ontario Women’s Directorate, “Ontario Government Business Plans, 1998-1999” (1999) at 8.

¹⁵³ *Ibid.* at 4-5.

¹⁵⁴ Ministry of Community and Social Services, “Ontario Government Business Plans, 1998-1999” (1999) at 18.

¹⁵⁵ *Ibid.* at 15.

36.9% to determine the costs relating to child abuse. Ontario reports the administrative costs of running its programs separately. Thus, we also include a portion of this budget. In order to estimate the administrative costs we first calculate the total administrative costs related to children. Taking the proportion of the full budget of the entire Ministry of Community and Social Services directed at children, we estimate that 36.1% of the administrative costs are directed specifically to children's programs and services. We then multiply the percentage of administrative costs relating to children (36.1%) by 36.9% to give us a total of 13.3% of administrative costs pertaining to child abuse. We then apply the 13.3% to the total administrative expenditure for the Ministry of Community and Social Services of \$29,000,000.¹⁵⁶ Therefore, the total estimated cost of government funded social services related to child abuse in the province of Ontario is **\$348,422,000**.

The Alberta Business Plan of 2000-03 reports that in 1998, Alberta's Ministry of Children's Services spent a total of \$14,891,000 on program support services or administrative costs, \$260,509,000 on child welfare, \$35,937,000 on family and community services and \$18,010,000 on early intervention services.¹⁵⁷ We apply 36.9% to the total expenditure of these departments. In addition, the government of Alberta, through the Ministry of Children's Services, spent \$9,304,000 on family violence prevention.¹⁵⁸ We include 100% of this cost. Together, the total estimated costs of government funded social services related to child abuse is **\$130,833,043** in the province of Alberta.

¹⁵⁶ *Ibid.* at 18.

¹⁵⁷ Iris Evans, Minister of Children's Services, *Government of Alberta's Children's Services Business Plan 2000-03* (Alberta: Ministry of Children's Services, 2001) at 59.

¹⁵⁸ *Ibid.*

In 1998/1999, the Ministry for Children and Families in British Columbia spent \$271,005,000 on their children-in-care program that administers and provides arrangements for children who cannot live with their families.¹⁵⁹ The provincial government also spent \$254,408,000 on residential services, including foster care.¹⁶⁰ To calculate the social services costs pertaining to child abuse, 36.9% is applied to the total expenditure of these services. Also, British Columbia has an adoption program that helps agencies and registries dealing with adoption. In 1998, the adoption program had 361 children registered for adoption in the province.¹⁶¹ If we take the number of children registered for adoption and apply 36.9%, we estimate that approximately 133 children (361 x .369) registered for adoption were being placed in new homes as a result of child abuse. This could include children removed from violent homes and made wards of the state as well as infants born to teenaged victims of abuse. The adoption program performed 1725 “tasks” relating to adoption by assisting individual adoption and reunion agencies and placing children in new homes.¹⁶² In order to calculate the costs of child abuse within this program, we divide the estimated number of children who were registered for adoption as a result of child abuse by the total number of tasks giving 7.7% (133/1725). The total expenditure of the Ministry of Children and Families adoption program in 1998 was \$3,064,000¹⁶³ to which we apply the above figure of 7.7%. After the relevant estimated percentages are applied, the approximate total expenditure of government funded social services related to child abuse for the province of British Columbia is **\$174,187,325**.

¹⁵⁹ Gretchen, M. Brewin, Minister of Children and Families, *Ministry for Children and Families Annual Report 1998/1999* (British Columbia: Minister of Children and Families, 1999) at 8, 23.

¹⁶⁰ *Ibid.* at 8, 12.

¹⁶¹ *Ibid.* at 15.

¹⁶² *Ibid.* The program placed 115 children in adoptive homes; issued 286 letter of no objection which allows for federal support of adopting from other countries; approved 14 adoptions related to the Hague Convention on the Protection of Children; oversaw 200 adoptions through agencies; helped with 546 exchanged letters through the post-adoption mail exchange; and arranged 318 reunions.

¹⁶³ *Supra* note 159 at 8.

The “Saskatchewan Social Services Annual Report for 1999-2000” reports that in 1998, the Department of Social Services, through Family and Youth Services, spent \$33,649,000 on community services relating to family and youth, \$16,415,000 on family and youth community based services, \$2,731,000 on program administration and \$23,121,000 on facilities for children and youth.¹⁶⁴ The services provided by these programs include support for victims of sexual and family violence, child protection, as well as adoption and assistance for children-in-care.¹⁶⁵ When we apply 36.9%, the total estimated expenditure for government funded social services related to child abuse in Saskatchewan is **\$28,013,004**.

In Manitoba, the Department of Family Services and Housing looks after issues pertaining to child abuse. The government provides child protection and support services through assisting community organizations, supporting families, overseeing child protection and placement as well as administering adoption services.¹⁶⁶ In 1999, the department spent a total of \$130,508,600 on protection and support.¹⁶⁷ The government of Manitoba also provides a family conciliation program designed to help families who are facing crisis.¹⁶⁸ In 1999, this program cost an estimated \$1,027,100.¹⁶⁹ Our percentage of 36.9 is applied to the total spent on protection, support and family conciliation. In addition, the government also spent an estimated \$8,463,000 on family violence prevention.¹⁷⁰ This entire expenditure is included in our

¹⁶⁴ *Saskatchewan Social Services Annual Report 1999-2000* (Saskatchewan: Department of Social Services, 2000), 74.

¹⁶⁵ *Ibid.* at 46.

¹⁶⁶ “Child Protection and Support Services”, online: <<http://www.gov.mb.ca/fs/programs/cfs/fs0cfs01.html>> (17/10/01).

¹⁶⁷ Gregory F. Selinger, Minister of Finance, *2000 Manitoba Estimates of Expenditure for the fiscal year ending March 31, 2001* (Manitoba: Ministry of Finance, 2001) at 75.

¹⁶⁸ “Family Conciliation” Government of Manitoba, online: <http://www.gov.mb.ca/fs/childfam/family_conciliation.html >

¹⁶⁹ *Supra* note 167 at 75.

¹⁷⁰ *Ibid.*

total. After adjusting for inflation, the estimated cost of government funded social services related to child abuse in the province of Manitoba is **\$56,019,279**.

In the remaining provinces and territories, the ministries and departments responsible for child abuse were also responsible for health care. In such cases, it is difficult to estimate the costs related only to child abuse. For example, in the Northwest Territories in 1998, 73.8% of the total budget for Health and Social Services was allotted to health while 15.6% of the total budget funded social services. The remaining 10.8% of the budget could not be divided between the two services.¹⁷¹ The Northwest Territories, Yukon and Nunavut had similar budgets and the provinces of Quebec and Newfoundland¹⁷² also combined health and social services in their annual reports.

In order to estimate the expenditures relating to child abuse in these provinces and territories, we used Alberta as a model because its costs were divided for children's services. In Alberta in 1998, the total expenditure for health was \$4,341,000,000 and the total expenditure for social services was \$1,603,000,000.¹⁷³ Our estimated cost of child abuse in Alberta is \$130,833,043. Thus, in order to find the percentage of the budget relating to child abuse, we combine the total spent on health and social services in Alberta and, using our total estimated expenditure on child abuse in Alberta, we find that 2.2% of the total budget for health and social services pertains to child abuse expenditures.

To estimate costs in the remaining provinces and territories, we apply 2.2% to the total provincial or territorial expenditure in health and social services. In 1998 Newfoundland's total

¹⁷¹ Email from Wayne Overbo, Budgeting Consultant, Health and Social Services, Government of the Northwest Territories. (18/10/01), 10:55am.

¹⁷² Conversation with Kelly Foss, Communications Specialist, Department of Health and Community Services in Newfoundland and Labrador, 18/10/01, 7:45am. Kelly Foss provided the breakdown of the provincial budget for this ministry. In 2001-02 44% of the provincial budget went to Health and Community Services which totalled 1.4 billion dollars. Of this figure, 62% funded institutional health boards, 15.4% funded health and community service boards, 1.3% funded the faculty of medicine, 14.4% funded the provincial MCP (health insurance plan), 5.1% funded medical and drug subsidies, 0.7% funded medical transport services, and 1.1% funded development and staffing.

budget for the Department of Health and Community Services was \$1,086,937,000.¹⁷⁴ Thus we estimate that Newfoundland spent approximately **\$23,924,508** on social services related to child abuse in 1998. Quebec reported a total budget for health and social services totalling \$12,993,833,500 for 1998.¹⁷⁵ Applying the same calculation provides us with an estimate of expenditure of **\$286,006,524** on child abuse services in the province of Quebec. Using the same method to calculate the child abuse related expenditures for each of the territories, we can estimate that the Northwest Territories spent **\$5,752,912**,¹⁷⁶ the Yukon spent **\$2,648,860**¹⁷⁷ and Nunavut spent **\$2,598,813**¹⁷⁸ on services pertaining to child abuse.

The total of all provincial and territorial social services across Canada comes to **\$1,177,110,136**, giving us a running total of **\$1,793,795,383**.

Private Social Services

Private sector social service organizations also contribute to the prevention, protection and well-being of children. Social service organizations can provide a number of services including relief and emergency support, food banks, shelters, recreational activities and many other programs designed to give support and help to individuals in need.¹⁷⁹ The Canadian Centre for Philanthropy estimates that 9.6 million people in Canada donated to social service

¹⁷³ "Annual Report, 1998-99", (Edmonton: Government of Alberta, 1999) at 14.

¹⁷⁴ "Province of Newfoundland Budget Speech, Exhibit IV", online: <http://www.gov.nf.ca/budget98/exhibit4.htm> at 1.

¹⁷⁵ Bernard Landry, Deputy Prime Minister and Minister of State responsible for the Economy and Finance, *1998-1999 Expenditure Budget: Volume 1, Estimates for the fiscal year ending March 31, 1999* (Quebec: Ministry of Finance, 1999) at B-3.

¹⁷⁶ John Todd, Minister of Finance, *Budget Address 1998* (Northwest Territories: Ministry of Finance, 1999) at 17.

¹⁷⁷ Pat Duncan, Minister of Finance, *The 2001 Yukon Budget Address* (Yukon: Ministry of Finance, 2001) at xii. The numbers reflect figures for 1999 and have been adjusted for inflation.

¹⁷⁸ Kevin Ng, Minister of Finance and Administration, *Budget Address 2001* (Nunavut: Ministry of Finance and Administration, 2001) at 20. The numbers have been adjusted for inflation.

¹⁷⁹ Laura Heinz, *Voluntary Social Service Organizations in Canada: Public Involvement and Support* (Toronto: Canadian Centre for Philanthropy, 2001) at 4.

organizations in a one-year period ending October 31, 1997. During this period a total of about \$502 million was given to social service agencies.¹⁸⁰ Of those donating to social services organizations throughout the year, 16% of the total amount went directly towards child services.¹⁸¹ In addition to monetary donations to social services programs, over 2 million Canadians volunteered within these organizations, providing a total number of 227 million hours of service.¹⁸² Although we cannot estimate the total amount of donations and volunteer hours directed at child abuse specifically, it is likely that a substantial portion of these funds were spent on the prevention and protection of children in abusive situations.

In addition to the services provided for children alone, it is also important to take into consideration the services directed at women who are victims of domestic violence. In 1998, it was estimated that 3.3 million children witnessed domestic abuse in their homes.¹⁸³ In addition there are estimates that between 40-60% of perpetrators of women abuse also abuse children.¹⁸⁴ Thus, private social services assisting women who have been abused often provide assistance for their children as well.

It is difficult to calculate the amount of money from the private sector supporting social services related to child abuse. In some cases, government grants and small amounts of public funds are part of the private sector's budget. Also, private social services are not only sought out by child abuse victims. For example, organizations like the YMCA/YWCA and Big Brothers and Big Sisters provide services for many individuals, thus the organization's total expenditures do not reflect a simple 'cost' of child abuse.

¹⁸⁰ *Ibid.* at 5.

¹⁸¹ *Ibid.*

¹⁸² *Ibid.* at 11.

¹⁸³ Sharon A. Chandley and Jesse J. Chandley Jr., "Providing Refuge: The Value of Domestic Violence Shelter Services" (Paper presented at the Annual Meeting of the Western Political Science Association in Seattle, WA, March 24-27, 1999) at 2.

¹⁸⁴ *Ibid.*

There is one case where data are available on private sector services that allow us to distinguish the percentage that is related to child abuse. The Kids Help Phone provides figures reflecting the number of calls relating to violence and abuse and we can therefore use these figures in our calculations. This service offers free counselling for children who experience emotional difficulties and support for children in abusive situations. In 1998/9, the service reported that 14% of calls pertained to violent or abusive behaviour that was witnessed by or inflicted upon the child.¹⁸⁵ Applying this percentage to the annual operating budget of \$6,800,614¹⁸⁶ yields \$952,086 spent by the Kids Help Phone to assist victims of child abuse. Although we do not have a per call cost and are therefore unable to apply Method I, it is reasonable to assume that the cost per call is the same for abuse and non-abuse related calls and Method II yields an accurate estimate. This gives us a token figure for private social services of **\$952,086**. Added to provincial and territorial social services gives a total of **\$1,178,062,222** for social services and an overall running total of **\$1,794,747,469**.

3. Education

As we noted earlier, the negative consequences of child abuse for an individual's educational performance are wide-ranging. These can include poor school attendance, behaviour problems, poor grades, learning disorders, truancy and failure to complete school. However, these generally do not involve additional costs to the school system that can be easily measured. Principally, the effect is felt by the individual later in life in terms of their employment. We therefore discuss these effects in our employment section. However, one cost to the school system that can be calculated is that of special education.

¹⁸⁵ Statistics Canada, *Family Violence in Canada: A Statistical Profile 2000*, 37.

¹⁸⁶ Email correspondence from Allison Exworth, Coordinator, Individual Giving, Kids Help Phone (15/03/02), 10:47am. This figure is from the 1999 operating budget.

Special Education

Victims of child abuse often suffer from behavioural and learning disorders as a direct consequence of their abuse. A portion of these students is therefore enrolled in special education classes, which are an additional cost to provincial governments. Although special education consists of a variety of programs, including schools for the blind and deaf, English as a second language classes and gifted classes, our calculations focus on special education programs for children with behavioural problems and learning disabilities.

In order to calculate the additional costs of special education related to child abuse, we follow the same method we used for the incarceration figures and compare the special education enrollment rates of the abused and non-abused populations. Implicitly we are again assuming that the other determinants of special education are distributed equally across both populations. Again, we caution the reader that this may overestimate the role of abuse, but without additional data it is the best we can do.

The percentage of abused children in special education programs is taken from the CIS, which reports that 6.56% of children investigated for abuse make use of these services.¹⁸⁷ No data exist that reports the percentage of non-abused children in special education and therefore we must calculate an estimate based on the percentage of all students. In Ontario and British Columbia, 2.89%¹⁸⁸ and 5.66%¹⁸⁹ of students respectively, are involved in special education services for behavioural problems and learning disabilities. The weighted average for these two provinces is then 3.55%. If this percentage is applied to all 5,414,344¹⁹⁰ students in Canada,

¹⁸⁷ This figure was calculated by the authors using a special CIS data request. The calculation is available upon request. The authors would like to thank Nico Trocmé for this information.

¹⁸⁸ *1992-93 Key Statistics Elementary and Secondary Education in Ontario* (Toronto, Ontario: Ministry of Education and Training, 1995) at Table 4, 30 and Table 1, 26.

¹⁸⁹ *Special Education Enrolment: Comparison of Current Trends by District/Authority* (British Columbia: Ministry of Education, 1999) at 47; *Headcount Enrolment by Grade and District Authority* (British Columbia: Ministry of Education, 1999) at 5.

¹⁹⁰ Statistics Canada, *Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 1999* (Ottawa: Canadian Education Statistics Council, 2000) at Table 3.15, 36.

then an estimated 192,209 students are enrolled in special education classes for behavioural problems and learning disabilities.

The number of abused students in school is 8.9%,¹⁹¹ times the total number of students in Canada. Then the number of abused students in special education is this figure times the percentage of abused children in special education (6.5%). This means that there are 31,611 abused children in special education classes. We then subtract 31,611 from 192,209 to estimate the number of non-abused children in special education. This gives us 160,598 non-abused students in special education. Dividing this figure by the total non-abused student population of 4,932,467 gives us 3.26%. The differential between abused and non-abused in special education is then calculated to be 3.3%. (6.56%-3.26%) We multiply this by the total number of abused children in school and estimate that there are 15,902 children whose placement in special education is related to their being abused.

Next we calculate the cost of special education programs in Canada. Our figures are based on the 1997 Ontario education funding formula, which allotted \$293 per elementary student and \$217 per secondary student for special education.¹⁹² Using \$217 as a lower bound figure for all students in Canada, we estimate that \$1,174,912,648 was spent on special education in 1997. Adjusting for inflation yields \$1,154,704,150 in 1998 dollars.

Although 53% of students in British Columbia's special education systems are in behavioural or learning disability programs, the cost of these programs is significantly less than special education for smaller groups, such as the blind or deaf.¹⁹³ Therefore rather than taking 53% of the expenditures allocated to special education, it is arbitrarily assumed that only 25% of

¹⁹¹ Calculated using figures from the CIS data made available for the authors upon request. Because the CIS calculates abuse incidence only up to the age of fifteen, we calculate the number of abused students in Canada by applying the incidence rate for all school aged children in the CIS to the Canadian student population.

¹⁹² *Education Funding in Ontario 1997: A Description of the Education Funding Model* (Ontario: Ministry of Education, 1997) at 10.

¹⁹³ *Supra* note 187 at 47.

expenditures are directed towards these programs. We use 25% to ensure that the cost per student in behavioural special education is not overestimated, although this is likely an underestimate of the amount directed towards behavioural and learning disability programs. Multiplying the total cost of special education by 25% gives us a total cost of \$288,676,038. Dividing this by the calculated enrolment in behavioural special education of 192,209 students gives us a per student cost of \$1,502 per year. Therefore, the total cost of special education related to abuse is estimated at \$1,502 x 15,902 or **\$23,882,994**. We add this to social services and judicial costs for a running total of **\$1,818,630,463**.

4. Health

There are three distinct time frames from which abuse related health costs must be viewed. First, there are the immediate physical or psychological injuries inflicted upon child victims currently experiencing abuse. Although physical harm is a result primarily of physical abuse, it also occurs as a result of emotional and sexual abuse as well as neglect. Most of these costs can be estimated using a combination of Method I and III. There are data on how many children seek medical attention after abuse but not on precisely how much is spent per visit. Therefore, we estimate a lower bound cost per visit.

Second, there are the health problems experienced by children and adolescents who have suffered abuse in their past and are experiencing prolonged effects currently. Because this group is not often considered, data regarding these costs are difficult to come by and we are therefore unable to assign a dollar value to these costs.

Finally, adult victims of childhood abuse tend to report more health problems than their non-abused counterparts. Consequently, there exist significant long-term medical issues for adult survivors of child abuse. As with the children who are currently being abused, the

calculations for adults rely primarily on Methods I and III. Data from the OHSUP are used to complete the calculations for this section.

Immediate Medical Costs for Children

The CIS reports that physical harm was sustained in 13% of investigations of child abuse, however, treatment was only required 3% of the time.¹⁹⁴ Of the 4,197 cases investigated where children required treatment for their injuries, 75% of those were substantiated or suspected abuse cases.¹⁹⁵ Therefore 3,148 cases of injuries can be considered as having been due to abuse. In 69% of these cases, the child had sustained cuts, bruises or scrapes; head trauma was recorded in 5%; burns and scalds in 4%; and broken bones in 3%.¹⁹⁶ Other health conditions, such as complications from an untreated illness comprise the other 24%.

Because we are dealing only with the immediate consequences of current abuse, we need only concern ourselves with the *inflow* of abused children. Moreover, since the injuries documented were either within the scope of a general practitioner or would require 'check-up' appointments with a family doctor even after emergency care, we use 3,148 as an estimate of the number of visits to a family doctor as a result of injuries sustained from abuse. A visit to a family doctor in Ontario in 1999 costs \$52.20.¹⁹⁷ Thus we estimate the total cost of family doctor visits as a result of current abuse at \$164,326.

¹⁹⁴ *Supra*, note 5, Table 4-1(a) at 41.

¹⁹⁵ Because the CIS report is based on records of investigations, there is a small possibility that a single child may have been investigated and treated more than once in a year. In this case, this double counting is appropriate, since we are interested in the total cost for one year to the health care system, rather than the cost per child.

¹⁹⁶ *Supra* note 5, Table 4-1(b) at 43.

¹⁹⁷ *Ontario Ministry of Health Schedule of Benefits: Physician Services Under the Health Insurance Act* (Toronto, Ontario: Ministry of Health and Long-term Care, 2000) at A1.

According to a Statistics Canada report on family violence, the total number of children admitted to the hospital for assault and other maltreatment in 1997-98 was 1,359.¹⁹⁸ Hospitalization can include overnight visits, surgical procedures, the setting of broken bones and other direct medical attention and emergency care. The cost of a visit to the hospital varies substantially based on which services are administered to the patient. To ensure an underestimate, we assume that every child admitted to the hospital only visited an emergency clinic and required no other form of medical attention or testing.

The cost of emergency room visits fluctuates depending on both the nature of the injury and the time and day of the week of the visit. Visits between eight in the morning and midnight cost \$30.85 whereas visits outside of these hours cost \$44.70.¹⁹⁹ To ensure a conservative cost estimate, we assume all visits to the emergency clinic take place during the day. Therefore, the estimated cost of abuse related visits to an emergency clinic is \$72,775. The total immediate cost of medical visits is **\$237,101**.

Persistent Medical Costs for Children

Physical and sexual abuse, particularly if it is extremely violent, can result in chronic health problems for children that persist long after the abuse may have ended. Added to the more obvious physical harms, abused children also sustain emotional harm for which treatment may be required. The CIS reports that in 24% of investigations that emotional harm was present and in 15% of cases was significant enough to require treatment.²⁰⁰ This percentage pertains not only to the inflow of cases for that year, but also to the 'stock' from previous years. This results in 65,161 abused children that have sustained severe emotional harm and thus

¹⁹⁸ Statistics Canada, *Family Violence in Canada: A Statistical Profile 2000* (Ottawa: Minister of Industry, 2000) at Table 4.6.

¹⁹⁹ *Supra* note 197 at A3 and A4.

²⁰⁰ *Supra* note 5, Table 4-2, at 45.

were in need of treatment. Although some of these children receive treatment from social services and some see private child psychologists, in many cases the emotional harm goes untreated. Because we do not know what percentage of children sustaining emotional harm either receive help from a non-government funded source or are not treated, we cannot estimate the cost of treatment for emotional harm to the health care system.

The National Longitudinal Study on Children and Youth currently being conducted by Statistics Canada and Human Resources Development Canada could potentially be a source for information about the longer term health effects of abuse on children. We understand that once the children participating in the survey reach the age of 18 some questions about their experience of child abuse may be added. If this does occur, our knowledge about the consequences of child abuse in Canada, and hence, its costs, will be greatly expanded.

Long Term Medical Costs for Adults

Given the long-term health consequences of abuse noted in Section IV, it is likely that abused individuals access the health care system more than non-abused individuals. Both the original Ontario Health Survey (OHS) and the OHSUP provide information on health care usage. With the information in the OHSUP on abuse we are able to determine whether or not health care usage varies between the two groups. We find that health care usage amongst the abused population is higher, although the differences and, therefore, the resulting costs are not large. This is not because the OHSUP sample of abuse survivors is free of health concerns. On the contrary, the information in the OHSUP on mental health reveals much higher rates of mental health problems amongst the abuse survivors than the non-abused.

The Mental Health Supplement to the OHS asks people questions concerning their experiences. Based on the answers to these questions, diagnoses regarding mental health disorders are made. These are not, therefore, based on doctor's diagnoses nor on the individual's perceptions of their own possible mental health problems. Survivors of physical

and/or sexual abuse have more OHSUP diagnosed mental health disorders over their realised lifetime, 1.53 (0.12), than those who have not suffered from abuse, .47 (0.02). Within abuse categories, those who have been only sexually abused have more disorders than those who have only been physically abused, while those who have suffered from both forms of abuse exhibit the highest rates. Abuse survivors are also more likely to have ever suffered a major mental illness (depression, mania, antisocial personality, and adult antisocial behaviour) than the general population rate of 6.3% (0.5). Those who have suffered from physical or sexual abuse alone are more than twice as likely to suffer a mental illness in their lifetimes, with rates of 12.7% (1.2) and 16.7% (3.6)*, respectively. Those who have suffered both kinds of abuse are almost 5 times as likely at 28.8%(3.4) to have suffered from a major mental illness.

The major mental illness category can be broken down into several different illnesses. For example, the lifetime prevalence of anxiety disorders (social phobia, simple phobia, agoraphobia, panic episodes, and general anxiety disorders) is only 18% (0.9) in the non-abused population, but is much higher amongst abused individuals. The increase in rates is similar across physical or sexual abuse alone at 25.6% (1.8) and 29.5% (4.8), respectively, while again it is almost two times higher at 42.7% (4.3) for those who have suffered both forms of abuse. The rates for affective disorders (dysthymia, major depression, manic episodes) are also higher for the abused than the non-abused rate of 7.0% (0.6). However, here sexual abuse only results in a higher rate at 18.8% (4.1)* than physical abuse only at 11.8% (1.2). Again the rate is much higher for those suffering both forms of abuse at 31.9% (4.2). For major depression, the rates are 5.5% (0.5) for those who were not abused, 9.6% (1.0) for those who were physically abused only, 16.5% (3.7) for those who were sexually abused only, and 25.5% (3.4) for those who were both physically and sexually abused. Although not as high, there are also significantly greater rates of personality disorders (antisocial personality, antisocial behaviour) and substance abuse (alcohol, cannabis, other) among the abused population than the non-abused population.

In terms of chronic physical ailments, we also find from the OHS that the total number of identified health problems is significantly greater for those who have suffered severe physical and/or sexual abuse compared to those who have not suffered any abuse. However, the number is not significantly different between the non-abused and those who have suffered physical and/or sexual abuse but not at severe levels. The non-abused have on average 1.38 (.03) health problems; similarly the non-severely abused have 1.43 (.07) health problems. However, the severely abused have 1.74 (.07) chronic health problems. The areas where the health problems show up for the severely abused are in five categories: (1) endocrine, nutritional/metabolic diseases and immunity disorders, (2) diseases of the blood and blood-forming organs, (3) mental disorders, (4) diseases of the genitourinary system (females only), and (5) diseases of the musculoskeletal system and connective tissue.

In spite of having these greater health issues, we find that abused individuals do not access the health care system at a substantially greater rate than non-abused individuals. This seemingly contradicts our earlier discussion of the consequences of abuse in Section IV, where we point to studies that show high proportions of abused persons among various patient groups. Also, our Homewood sample, though small and non-representative, shows a very high rate of health system usage. It may be that there is a minority of abuse survivors who are 'help-seekers' for a number of reasons having to do with their class and income and level of progress in recovering and reflecting on their abuse. Conversely, there is also a literature that argues the opposite point, that abuse survivors are more likely to avoid the health care system.²⁰¹ This may reflect the fact that abused individuals are less likely to trust doctors, find invasive medical

²⁰¹ Deborah Doob, "Female Abuse Survivors as Patients: Avoiding Retraumatization" (1992) 6(4) Archives of Psychiatric Nursing 245-251; Aaron Lazare, "Shame and Humiliation in the Medical Encounter" (1997) 147 Archives of Internal Medicine 1653-1658; Rodrigez, Stalker, Carol A., Candace L. Schachter and Eli Teram. "Facilitating Effective Relationships Between Survivors of Childhood Sexual Abuse and Health Care Professionals" (1999) 14(2) Affilia: Journal of Women and Social Work 88-97; Sari Tudivor, Lynn McClure, Tuula Heinonen, Christine Kreklewitz and Carol Scurfield, "Remembrance of Things Past: The Legacy of Childhood Sexual Abuse in Midlife Women" The Canadian Women's Health Network (2001), online: <<http://www.cwhn.ca/resources/csa/article.html>>

treatments difficult to handle given their memories of abuse, do not want to talk about or reveal their problems, or have grown up with less medical treatment and therefore were not socialised to use the medical system to treat their health problems. It may be that the two groups cancel each other out, resulting in an overall rate not much higher than the general population. This is an intriguing issue that deserves further study. All this is not to say that the health concerns experienced by the survivors of abuse do not manifest themselves in other cost areas. In particular, many health issues may carry over into the area of employment and personal costs.

The OHSUP data do, however, reveal some areas of difference in terms of health care usage. First, the rate of emergency room visits (in the last year) is higher amongst the abused population (physical and/or sexual abuse). In the past year abused individuals visited the emergency room .11 (.03)** times more than non-abused individuals. We might expect emergency room visits to be higher amongst the abused due to their potential lack of contact with a regular doctor or, for women in particular, due to a higher incidence of domestic violence. If we assume that the usage rate differential for Ontario is the same for the rest of Canada and cost a visit to the emergency room at the Ontario rate of \$30.85, the total cost of emergency room visits due to the long term consequences of abuse is \$24,268,235.

The other difference found in the OHS data concerns visits to various different kinds of health practitioners in the past year. These include visits to a wide range of health care practitioners such as family physicians, specialists, nurses, dentists, optometrists, pharmacists, chiropractors, and psychologists. Overall, survivors of severe physical and/or sexual abuse are found to have made 13.33 (.92) visits in the past year, while those who did not suffer from severe abuse made only 10.15 (.30) visits. This difference is statistically significant, but does not necessarily translate into greater costs to the provincially funded health care system. Many of these visits are for services that are not covered under provincial health insurance plans. In these cases the costs of the extra visits represent personal costs to the abuse survivors. Examining only visits to provincially-funded general practitioners, specialists, and nurses, we

find that survivors of severe abuse made 6.33 (.40) visits in the past year, while those who did not suffer from severe abuse made only 5.24 (.17) visits. This difference is statistically significant and forms the basis of our health cost calculation. We use the cost of a visit to a general practitioner at \$52.20 to evaluate these costs, since it is in a mid-range between less expensive visits to nurses and more expensive visits to specialists. Multiplying the difference in visits by the number of severely abused individuals, we find that the total cost of health visits due to the long term consequences of abuse is \$198,065,181. Adding these two costs together yields a total long term medical cost of **\$222,333,416**. Adding the long term costs to the immediate costs yields a total health cost in 1998 of **\$222,570,517**. Adding this to the running total yields **\$2,041,200,981**.

5. Employment

The negative consequences of child abuse in an individual's ability to do well at school directly affects their earnings later in life. Although adult survivors of abuse may not use the healthcare system significantly more than does the general population, the OHSUP shows that they experience more chronic illnesses and a higher rate of depression. This may result in lower productivity, difficulties on the job, and lost promotions, and therefore have very direct consequences for the earnings power of individuals who have suffered child abuse.

Lost Earnings Due to Abuse

The OHSUP contains information on the educational status, employment status and income of individuals. Using these data we can determine the amount of lost earnings that are related to abuse. There are many reasons to expect that abuse may affect earnings. First, it is well known that higher educated individuals tend to have higher employment rates and higher earnings. If abuse leads to lower educational attainment, then abused individuals will likely earn less. In addition the long-term health limitations associated with abuse may also affect an

individual's productivity on the job or even their ability to remain employed. There is a substantial literature which has shown a negative relationship between health problems and earnings.²⁰²

The OHSUP contains information that may be helpful in understanding any earnings differences that are found. For example, individuals who have been physically abused only are found to be significantly more likely to fail or repeat a grade than those who have not been abused at all, while the difference is not significant for those who have been sexually abused only.²⁰³ These differences in school performance lead to differences in educational attainment. Examining individuals who are 25-64 and are therefore likely to have completed their education, we find that amongst non-abused individuals 25.6% (1.1) did not graduate from high school, 39.4% (1.2) received a high school degree but not a university or college degree, and 35.0% (1.3) received a college or university degree. For those physically abused, the rate for high school dropouts is higher while the rate for university graduates is lower: 28.9% (2.0) are high school dropouts, 41.8% (2.6) are high school graduates and 29.3% (2.3) are college/university graduates. This is also the case for individuals who have suffered both physical and sexual abuse. Their high school dropout rate is 29.9% (3.6), high school graduation rate is 45.0% (4.4) and university graduation rate is 25.2% (3.8). The story is different for those suffering from sexual abuse but not physical abuse. Here the level of educational attainment is higher than that of the non-abused. Their high school dropout rate is 18.9% (3.0)*, high school completion is 43.8% (5.5) and university completion is 37.4% (5.3). These differences in educational attainment are different across all four groups at a 5% level of significance.

²⁰² A. Bartel and P. Taubman, "Health and Labor Market Success: The Role of Various Diseases" (1979) 71 *Review of Economics and Statistics* 1-8; T.N. Chirikos and G. Nestle, "Further Evidence on the Economic Effects of Poor Health" (1985) *Review of Economics and Statistics* 61-69.

²⁰³ Amongst non-abused individuals age 25-64 the rate of failing and/or repeating a grade is 23.9% (1.1), while the rate for physical abuse alone is 32.5% (2.1) and for those suffering from both forms of abuse is 34.3% (3.8). Both of these rates are significantly different from the non-abused rate. The rate for sexual abuse alone is 24.7% (4.3)* and is not significantly different from the non-abused rate.

In terms of employment, the OHSUP data indicate that there is no significant difference in employment rates across the groups nor in full-time/part-time rates. Thus, if there are effects on employment from abuse, they do not stem from the level of employment. However, there are differences in the occupational stature of the jobs held by the different groups. In particular, 32.4% (1.4) of the non-abused population hold professional or managerial position. This compares to 25.8% (2.2) for physical abuse alone and 28.0% (3.8) for those suffering from both forms of abuse, while the rate is 48.8% (5.4) for sexual abuse alone. Finally, the OHSUP data reveal that physically abused individuals (including those who were also sexually abused) are also more likely to have taken up funds from such government programs as welfare, income support, and disability. Again this is not true for those who were sexually abused only.²⁰⁴

The differences in educational attainment, occupational status and reliance on government support among the populations of those abused physically only, both physically and sexually, and sexually only, are at times significant but are not easy to explain. Those who were sexually abused only suffer from negative health consequences comparable to those who have been physically abused only, yet they appear to be higher achievers in their working lives. Clearly, further study is called for in order to better understand the differing effects of each form of child maltreatment on those who have been abused.

To calculate the overall cost of lost earnings related to abuse we use a standard linear regression model.²⁰⁵ A linear regression model allows for the determination of the effect of abuse on earnings after controlling for other factors that also affect earnings. We then apply the result to the national population figures, implicitly assuming the lost earnings found for Ontario apply to the rest of Canada. The closest measure of earnings in the OHSUP is personal income,

²⁰⁴ For non-abused individuals we find 14.9% (1.0) have received income from a government program in the last year. For physically abused individuals and those who have suffered from both forms of abuse the percentage increases to 20.3% (2.0) and 20.9% (3.0), respectively. Finally, the rate is 12.8% (3.1)* for sexual abuse alone which is not statistically different from that of the non-abused population.

which is reported in a categorical format. That is, individuals are asked the level of their personal income (including all sources) and then it is coded into one of 12 categories. To determine the dollar effect of abuse on earnings we convert the categorical variable given in the OHSUP to a continuous variable and we purge the income measure of all sources other than earnings. To convert the categorical income data into a continuous measure, we assign the midpoint of the range of values to each category, and to control for non-earnings sources of income, we include controls for government income sources in the regression.

The results from the linear regression are as follows. The coefficient on physical abuse only was \$-3,098.23 (1019.24) and significant at the 1% level.²⁰⁶ This figure is in line with others in the literature. As cited earlier, Macmillan found annual earnings of adolescent assault victims reduced by US\$6,000.²⁰⁷ The coefficients on the other two abuse categories, sexual abuse only and both physical and sexual abuse, were not significantly different from zero and therefore do not enter our calculations. Even though the above earnings difference is in 1990 dollars we do not inflate it to 1998 dollars. Real wages tended to decline over this period, especially in the lower half of the earnings distribution, and thus inflating likely would overstate the current effect of abuse on earnings. Multiplying the above difference by the number of individuals (25-64) who have suffered from physical abuse only, yields a total cost of **\$11,156,747,010**. It is interesting to ask how much of this difference can be explained by the lower educational attainment and occupational status of physically abused individuals. Adding education and occupation categories to the regression lowers the coefficient to \$-1855.49 (860.44), which is substantially

²⁰⁵ The regressions were run in Stata using survey commands to take account of the OHS sampling design. All results are available from the authors upon request.

²⁰⁶ The variables included in the regression were the three abuse categories, controls for all government sources of income such as welfare, potential experience and potential experience squared (where potential experience = age – years of education – 6), a female indicator, a married indicator, indicators for location within Ontario, and a measure of parental education attainment. A robustness check was done to determine whether or not the government program indicators sufficiently removed their income effects so that we were getting a true earnings effect on abuse. A regression was run only on those individuals who did not receive government benefits and the results with respect to the abuse categories were virtually unchanged.

lower but still significant at the 5% level. This indicates that for physically abused individuals educational and occupational attainment is only part of the story, as a substantial portion of the difference remains. This indicates a lower level of productivity on the job even when education and occupation levels are held constant. Remembering that educational and occupational attainment levels were higher for individuals who were sexually abused but not physically abused, one might expect that their income would be higher than that of non-abused individuals. The fact that it is not significantly different indicates that they too have not reached the level of productivity on the job typical of the non-abused population. This latter loss is not captured in our calculations.

Employment Costs: Lost earnings due to incarceration

Part of the cost of child abuse is the lost productivity of persons who are in jail either because they have committed child abuse or some other crime as a result of their histories of being maltreated. To account for these lost earnings we multiply the number of persons in jail as a consequence of child abuse by an average earnings level. We use the lowest education level (not completed high school) and include zero and part-time earners in the mean calculation to ensure an underestimate. This gives us average annual earnings of \$15,651 for men and \$6,440 for women.²⁰⁸ We have earlier calculated that there are 8,823 males and 740 females in federal and provincial prisons for assaulting a child and/or as a result of maltreatment during childhood. Multiplying these numbers by the average annual earnings yields \$138,088,773 and \$4,765,600 in lost earnings costs for males and females, respectively, for a

²⁰⁷ Macmillan, *supra* note 21 at 576.

²⁰⁸ Author's calculations using the 1998 Canadian Survey of Consumer Finances (SCF). The figures from the SCF correspond to 1997 income and therefore the figures used in the text have been inflated to 1998 dollar values.

total of **\$142,854,373**. Total employment costs are then **\$11,299,601,383**. Adding this figure for lost earnings to the running total gives **\$13,340,802,364**.

6. Personal Costs

Personal costs come in many different forms. Health-related personal costs include prescription drugs, alternative therapies, some psychological assistance and any other treatment not entirely covered by insurance schemes or government programs. Frequently, victims may also have costs associated with legal processes such as legal fees, transportation to and from a trial location, as well as lost time from work during the proceedings. Other consequences of maltreatment, such as drug abuse and alcoholism, teen pregnancy and divorce, have costs that are incurred by the individual. In addition to the costs borne by the victim, there are also costs to the perpetrator and to the families of both victim and perpetrator. We have been unable to find any data sources on these personal costs, with the exception of the personal costs identified in Section 1 under Legal Aid.

Because there are no data sources that provide information on the personal costs of child abuse, we use Homewood's survey of 19 survivors of abuse from their residential treatment program for adult survivors of childhood trauma. With this, we attempt to begin to understand the magnitude and range of such costs. While this is a small, non-random sample, it represents a first attempt at quantifying the personal costs of child maltreatment. We are fully aware of the limitations of our results, and therefore use them with caution. The results are presented in Tables I, II and III.

Table I contains a summary of all of the costs reported by the respondents over their adult lifetimes. Column 1 reports the minimum cost level for each category, while Column 2 reports the maximum. Columns 3 and 4 report the median and mean, respectively. The first row contains information on all costs combined while the remaining rows provide costs for each of the categories. Table I presents statistics for all responses, while Table II includes only those

reporting positive costs in each category. Note that costs for self-help materials were incurred by all respondents. Table III provides the cost estimates on an annual basis adjusted for age. The average annual costs are calculated as $\text{cost}/(\text{age}-18)$. This table indicates that annual out-of-pocket costs of child abuse to the Homewood respondents are not trivial.

The figures in Table III provide the basis for measuring personal costs for all abuse survivors. Some of the costs listed in Table III are one time only expenditures, such as relocation costs. Others are ongoing ones, such as the expense of therapy and self-help materials, or alcohol and drug use. Because we are interested in an annual figure, we use only these latter costs. Row 1 of Table III indicates that the total average expense per person was \$2437 in personal costs. Of this, \$453 represent one time only costs and are thus excluded. The remaining \$1984 includes the costs of therapies of all types, drugs including both prescription and non-prescription, alcohol, transportation, unlisted telephone numbers and other expenses. There were two outliers in our sample who had very high personal costs. Removing them yields an average of \$956.00. This is the figure on which we base the personal cost estimates.

There are several reasons to think that this cost may overstate the amount of personal costs for all abuse survivors. First, it may be that the clientele of the Homewood program are more likely to be survivors of severe abuse. Second, since the survey was retrospective, the respondents answered with gross estimates of the costs they incurred. Third, it is possible that these individuals would have spent money on these goods and services even if they had not been abused. Thus we reduce the above figure when calculating personal costs.

For survivors of severe abuse, we arbitrarily assume only one-half the costs of the Homewood clientele, or \$478 per year in on-going personal costs resulting from their childhood abuse. Our prevalence figures for adults include 3,481,057 survivors of severe abuse in Canada. For this group we then calculate \$1,663,945,246 in personal costs. For the remaining 3,670,331 survivors of less severe abuse we use one-fifth of the reported costs. This amounts to \$191 per person per year in on-going costs resulting from their childhood trauma. For them,

the total is \$701,033,221. Adding the two estimates of personal costs together with the \$129,216 in Legal Aid personal costs identified in Section 1 yields **\$2,365,107,683**.

This brings our total to **\$ 15,705,910,047** in costs for child abuse in Canada in 1998.

V. Conclusion

Even without complete estimates, the total of the costs of child abuse in Canada in 1998 reaches **\$15,705,910,047**. This figure dramatically shows that violence, and specifically child abuse, is extremely costly to society and to individuals. Moreover, it cannot be emphasized enough that these costs represent the *minimum* estimate of the cost to society. Some areas are drastically underestimated and others are not even included in the total at all. Therefore the full costs of child abuse are likely to be substantially higher than we have been able to indicate.

In general, our work shows that the major costs of child abuse are not borne by the government, but rather are personal costs to the victims. These costs include out of pocket costs as well as lost earnings as adults. Historically, we have ignored these costs to the victims. These hidden costs do have larger repercussions, however. If we only look at the figures on lost earnings, we find that over \$11 billion per year is lost from the Canadian Gross Domestic Product. Further, if we consider the multiplier effect of every dollar not earned and spent, the results become much vaster. Child abuse directly lowers the productivity of the nation, and consequently lowers government revenues. This affects all of us by reducing Canadian productivity and competitiveness internationally. This alone ought to be reason enough to compel Canadians pay attention to this problem.

Our research strongly suggests that it is false economy to save dollars in the short run by ignoring abuse or by cutting programs designed to help families. There is a tremendous imbalance in what we as a society allocate to reduce the effects of abuse and the costs

themselves. Social Services, for example, at \$1.2 billion per year, represents just 7.5% of the estimated total cost of child maltreatment to Canadian society and is the only sector of expenditure where the government makes an attempt to prevent violence. Even a relatively small increased investment in effective prevention and treatment programs could yield huge dividends for society. In fact, the earlier the intervention, the lower the overall costs and the greatest chance there is for a reduction of the multiplier effects consequent to abuse.

Connected to this is the need for new research on child abuse. The best survey that we presently have, the OHSUP, is now thirteen years old and is only for the province of Ontario. We need a national adult survey to augment and update the OHSUP. Such a survey would enable researchers to re-calculate costs to see whether progress has been made in reducing the prevalence and costs of child abuse. Another important potential data source, the National Longitudinal Survey on Children and Youth, will soon be at a stage where many of its respondents will be legally adults and could be asked retrospective questions about child abuse.

Further, where there are data currently being collected, the issue of child abuse is often ignored. Health care organizations, provincial welfare departments, police and schools are not consistently recording which of their cases reflect child abuse. One of the reasons for this might be the sensitive nature of the issue of child abuse, and the legal obligation to report it to the authorities; however, even where this consideration is not a factor, data are often hard to come by. For the purposes of research aimed at exposing and measuring the effects of child maltreatment, we are left having to use assumptions to piece together bits of information from various sources. It would greatly facilitate the generation of better data if agencies and government departments that deal with the consequences of child abuse could coordinate their recording policies and practices on this issue.

While we have been able to estimate some of the costs of abuse, we are limited by this data availability. Nonetheless, our partial estimate approaches \$16 billion in 1998 alone. This may seem to be an enormous figure, but it represents only a small part of the cost of child

maltreatment. If we continue to do as little as we do now to deal with this serious social problem, we will find that the costs will only increase. A well-planned and thoughtful investment of significant public funds in early detection, prevention and treatment of all forms of child abuse is not only a moral necessity for Canadian society, it is sound fiscal policy that will directly benefit us all.

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Figure 1 –The Day Model

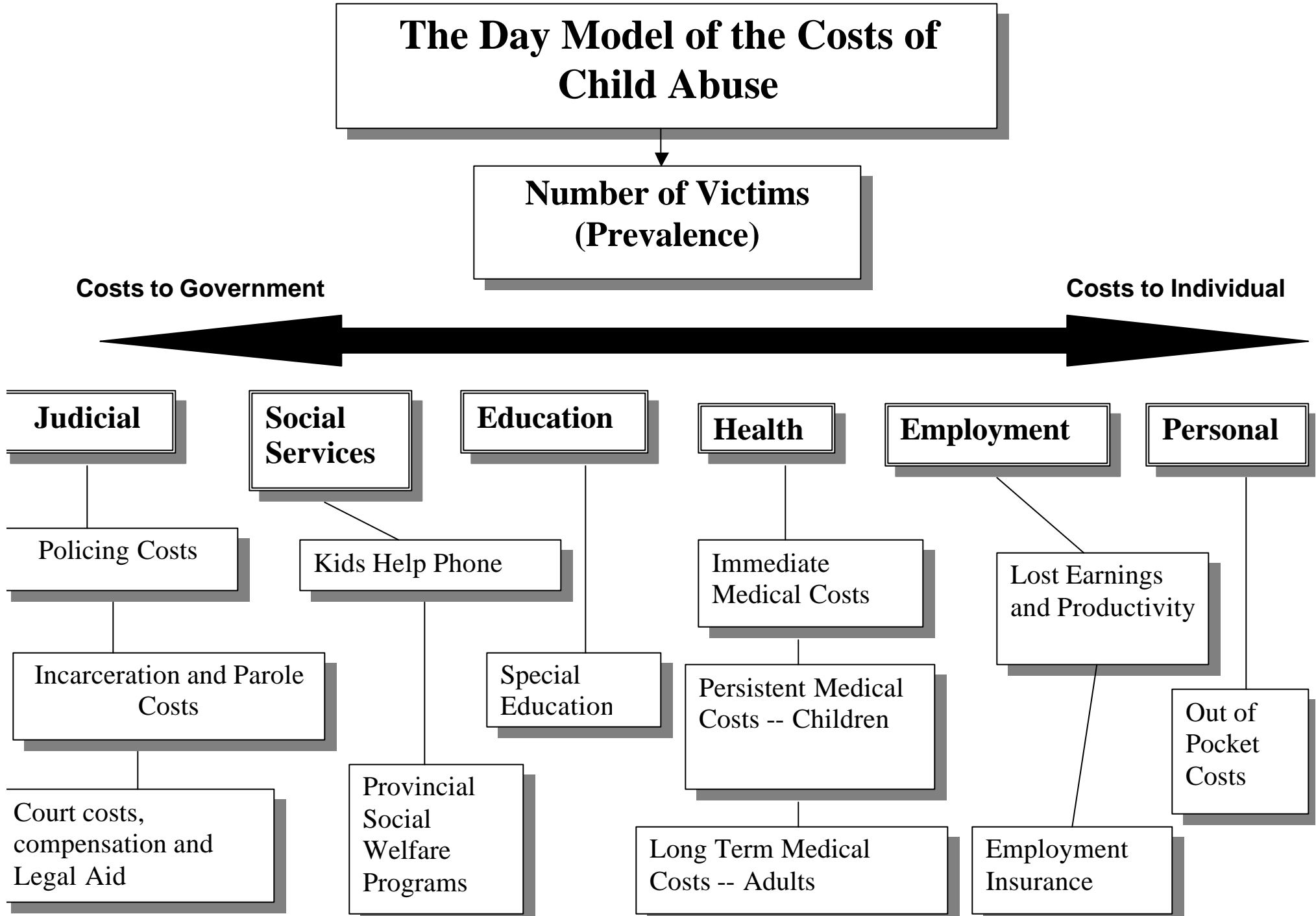


Table I Lifetime Personal Costs to Survivors (All Respondents)

Personal Costs	Minimum (\$)	Maximum (\$)	Median (\$)	Mean (\$)
Total	4,200	203,000	32,000	46,353
By Category				
Therapy	0	9,000	0	1,026
Alternative Therapy	0	7,000	0	1,184
Self Help Materials	100	5,000	1,000	1,968
Prescription Drugs	0	10,000	0	1,921
Relocation Expenses	0	20,000	2,000	3,474
Non-prescription Drugs	0	6,000	2,000	2,816
Security System	0	2,000	0	195
Replacing Household Goods	0	25,000	1,000	5,421
Transportation	0	10,000	1,000	2,132
Unlisted Telephone Numbers	0	10,000	0	1,495
Clothing (if destroyed)	0	10,000	1,000	1,842
Divorce Proceedings	0	10,000	0	1,300
Other (Drugs, alcohol)	0	156,000	0	21,579

Table II Lifetime Personal Costs to Survivors (Nonzero Responses Only)

Personal Costs	No of People	Minimum (\$)	Maximum (\$)	Median (\$)	Mean (\$)
By Category					
Therapy	7	1,000	9,000	1,000	2,786
Alternative Therapy	6	1,000	7,000	3,500	3,750
Self Help Materials	19	100	5,000	1,000	1,968
Prescription Drugs	8	1,500	10,000	3,000	4,563
Relocation Expenses	12	1,500	20,000	3,500	5,500
Non-prescription Drugs	17	1,000	6,000	2,500	3147
Security System	5	300	2,000	500	740
Replacing Household Goods	10	1,000	25,000	10,000	10,300
Transportation	12	1,000	10,000	2,500	3,375
Unlisted Telephone Numbers	7	400	10,000	2,000	4,057
Clothing (if destroyed)	10	1,000	10,000	3,500	3,500
Divorce Proceedings	7	500	10,000	2,000	3,529
Other (Drugs, alcohol)	8	1,000	156,000	30,000	51,250

Table III Annual Personal Costs to Survivors (All Respondents)

Personal Costs	Minimum (\$)	Maximum (\$)	Median (\$)	Mean (\$)
Total	150	13,583	1,542	2,536
By Category				
Therapy	0	360	0	51
Alternative Therapy	0	217	0	44
Self Help Materials	3	286	60	94
Prescription Drugs	0	455	0	99
Relocation Expenses	0	1,250	87	164
Non-prescription Drugs	0	261	143	129
Security System	0	143	0	11
Replacing Household Goods	0	1,136	36	234
Transportation	0	625	48	108
Unlisted Telephone Numbers	0	429	0	76
Clothing (if destroyed)	0	435	29	94
Divorce Proceedings	0	294	0	50
Other (Drugs, alcohol)	0	13,333	0	1,383

Appendix I: The Homewood Survey

THE ECONOMIC COSTS AND
CONSEQUENCES OF CHILD ABUSE:
THE REALITIES AND NEEDS OF
ABUSE SURVIVORS

CONFIDENTIAL

HOMEWOOD HEALTH CENTRE
PROGRAM FOR TRAUMATIC STRESS RECOVERY

IN COLLABORATION WITH

THE CENTRE FOR RESEARCH ON VIOLENCE
AGAINST WOMEN AND CHILDREN

THE UNIVERSITY OF WESTERN ONTARIO

The Centre for Research on Violence Against Women and Children is conducting a research project, entitled 'The Economic Costs and Consequences of Child Abuse: The Realities and Needs of Abuse Survivors'. Homewood Health Centre has been a partner in this project from its earliest stages. The reason for conducting this research is to find out the financial costs of child abuse both to survivors and to society as a whole. You have been provided with an information letter and consent form which describes the project in detail. Do you have any further questions at this time?

I am going to ask you a few questions about your experiences as a survivor of child abuse. The Research Team will be grateful to you if you can help them by taking an active part in answering the questionnaire.

The data collected will be kept strictly confidential and will be used for no purpose other than that of research. Your name will not appear anywhere on the questionnaire, but will be assigned a number for our purposes.

We are interested in collecting data on a varied range of issues related with the experience of child abuse and your views on them will be highly appreciated.

When I ask you the questions please try to answer them as accurately as you can. It is very important to answer all questions that apply to you. Please note that if more than one answer applies, please prompt me to circle more than one selection.

We are also interested in any additional comments you would like to make on the issues raised. You will be given an opportunity to raise these at the end of the interview.

As noted earlier, the data will be kept strictly confidential and will be used only for research. If at any time you feel uncomfortable in answering any of the questions please do not hesitate to let me know and we can terminate the interview.

Your co-operation and time that you have given in filling in the questionnaire is highly appreciated. Thank you very much.

SECTION A: PERSONAL DETAILS

First, I would like to ask you some questions about yourself.

- A 1. When were you born? year _____
- A 2. In what province, territory or other country were you born?
Please specify _____
- A 3. Where are you currently living?
Please specify _____
- A 4. What is your gender?
- a) Male
 - b) Female
- A 5. What is your marital status?
- a) Married
 - b) Unmarried
 - c) Divorced
 - d) Separated
 - e) Widowed
 - f) Common Law (having lived together for one year or more or having a child together)
- A 6. Have you ever had any children?
- a) Yes
 - b) No, **GO TO A 8**
- A 7. What are the ages and sex of your children?
- | Children | Age | Sex |
|----------|-----|-----|
| Child 1 | | |
| Child 2 | | |
| Child 3 | | |
| Child 4 | | |
- Please add additional children on reverse.
- A 8. What type of abuse have you experienced as a child (under the age of 18)?
Please circle all that apply.
- a) Witnessing
 - b) Physical
 - c) Sexual
 - d) Emotional

Now I would like to ask you some questions about witnessing abuse.

A 9. Have you ever witnessed abuse as a child (under the age of 18)?

- a) Yes
- b) No, **GO TO A 15**

A 10. What was the setting of the abuse you witnessed? Please circle all that apply.

- a) Your home
- b) Friend or relative's home
- c) Residential institution
- d) Non - Residential institution specify _____
- e) Other, (specify) _____

A 11. If yes, what type of abuse? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 12. Who was the perpetrator? Please circle all that apply.

- a) Father
- b) Mother
- c) Sibling
- d) Friend
- e) Neighbour
- f) Relative specify _____
- g) Other, (specify) _____

A 13. Who was the victim? Please circle all that apply.

- a) Father
- b) Mother
- c) Sibling
- d) Friend
- e) Neighbour
- f) Relative (specify)
- g) Other, (specify)

A 14. How old were you when you first witnessed abuse?

Age (specify) _____

Now I would like to ask you a set of questions about the setting of the abuse you have experienced under the age of 18.

A 15. What was the setting of the abuse you experienced under the age of 18? Please circle all that apply.

- a) Your home
- b) Friend's or relative's home
- c) Residential institution specify _____
- d) Non -Residential institution specify _____
- e) Other, (specify) _____

ABUSE IN THE HOME**(If it was abuse in the home then answer A 16 to A 20, If No then go to A 21)**

A 16. If the abuse occurred in the home, who was the perpetrator in the home?
Please circle all that apply to you.

- a) Father
- b) Mother
- c) Family friend
- d) Neighbour
- e) Babysitter
- f) Close relative, (specify)_____
- g) Other, (specify)_____

A 17. What type of abuse was it? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 18. How old were you when the abuse started?

Age (specify)_____

A 19. How many incidents of abuse were there in the home?

- a) One
- b) More than one **IF SO, ANSWER A 20**

A 20. Over what period of time were you abused? Please specify length of time in days, months or years.

ABUSE IN A FRIEND'S OR RELATIVE'S HOME**(If abuse in a friend's or relatives home then answer A 21 to A 25, If No then go to A 26)**

A 21. If the abuse occurred in a friend's or relative's home, who was the perpetrator? Please circle all that apply.

- a) Family friend
- b) Neighbour
- c) Close relative, (specify)_____
- d) Other, (specify)_____

A 22. What type of abuse occurred? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 23. How old were you when the abuse started?

Age (specify)_____

A 24. How many incidents of abuse were there?

- a) One
- b) More than one **IF SO, ANSWER A 25**

A 25. Over what period of time were you abused? Please specify length of time in days, months or years.

ABUSE IN A RESIDENTIAL INSTITUTION (If abuse in a residential institution then, answer A 26 to A 30, If No then go to A 31)

A 26. If the abuse occurred in a residential institution, who was the perpetrator? Please circle all that apply.

- a) Teacher
- b) Friend
- c) Caregiver
- d) Someone in authority, (specify)_____
- e) Other, (specify)_____

A 27. What type of abuse occurred? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 28. How old were you when the abuse started?

Age (specify)_____

A 29. How many incidents of abuse were there?

- a) One
- b) More than one **IF SO, ANSWER A 30**

A 30. Over what period of time were you abused? Please specify length of time in days, months or years.

**ABUSE IN A NON - RESIDENTIAL INSTITUTION
(If abuse in a non-residential institution then answer A 31 to A 35, If No then go to A 36)**

A 31. If the abuse occurred in a public institution, who was the perpetrator? Please circle all that apply.

- a) Friend
- b) Stranger
- c) Teacher
- d) Minister/Priest
- e) Someone in authority, (specify)_____
- f) Other, (specify)_____

A 32. What type of abuse occurred? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 33. How old were you when the abuse started?

Age (specify)_____

A 34. How many incidents of abuse were there?

- a) One
- b) More than one **IF SO, ANSWER A 35**

A 35. Over what period of time were you abused? Please specify length of time in days, months or years.

ABUSE IN ANY OTHER PLACE

(If abuse in any other place then answer A 36 to A 40, If No then go to B 1)

A 36. If in any other place, who was the perpetrator? Please circle all that apply.

- a) Person known to you (specify)_____
- b) Someone in authority (specify)_____
- c) Relative (specify)_____
- d) Other, (specify)_____
- e) Stranger

A 37. What type of abuse occurred? Please circle all that apply.

- a) Physical
- b) Sexual
- c) Emotional

A 38. How old were you when the abuse started?

Age (specify)_____

A 39. How many incidents of abuse were there?

- a) One
- b) More than one **IF SO, ANSWER A 40**

A 40. Over what period of time were you abused? Please specify length of time in days, months or years.

SECTION B: LEGAL/JUDICIAL AND PENAL

- B 1. Were the police ever contacted as a result of the abuse you experienced?
- a) Yes, at the time it occurred. How many times _____
 - b) Yes, at a later date. How much later and how many times _____
 - c) No, **GO TO B 27**
- B 2. How old were you when the police were first contacted?
- Age _____
- B 3. Was the perpetrator charged?
- a) Yes at that time
 - b) Yes at a later stage
 - c) No, **GO B 27**
- B 4. After being charged, and prior to trial was the perpetrator...
- a) Held in remand/jail prior to trial (specify duration) _____
 - b) On bail (specify amount) _____
 - c) On own recognizance
- B 5. Was there a pre-trial hearing?
- a) Yes
 - b) No, **GO TO B 7**
- B 6. How long was the pre-trial hearing?
- Please try to give the specific number of days _____
- B 7. Did the case go to court?
- a) Yes
 - b) No, **GO TO B 27**
 - c) Plea bargain **GO TO B 12**
- B 8. How was the trial conducted?
- a) By judge
 - b) By judge and jury
- B 9. How long was the trial?
- Please try to give the specific number of days _____
- B 10. Who testified at the trial? Circle all that apply to you.
- a) Yourself
 - b) Doctor
 - c) Police
 - d) Psychologist

- e) Social worker (specify)_____
- f) Other expert witness (specify)_____
- g) Other (specify)_____

B 11. Was the perpetrator found guilty?

- a) Yes
- b) No, **GO TO B 14**

B 12. Was the perpetrator imprisoned or fined?

- a) Yes imprisoned, how long_____
- b) Yes fined, how much_____
- c) Was given Community Service (please give duration, type and agency providing services)_____

B 13. How much time in total did the perpetrator serve in jail (including before, during and after the trial)

Please be specific_____

B 14 Was there an appeal?

- a) Yes
- b) No, perpetrator guilty, GO TO B 21**
- c) No, perpetrator not guilty, **GO TO B24**

B 15. If the appeal was against conviction and was allowed, was a re-trial ordered?

- a) Yes
- b) No, **GO TO B 21**

B 16. In the re-trial how was the trial conducted?

- a) By judge
- b) By judge and jury

B 17. How long was the re-trial?

Please try to give specific number of days_____

B 18. Who testified at the re-trial?

- a) Yourself
- b) Doctor
- c) Police
- d) Psychologist
- e) Social worker (specify)_____
- f) Other expert witness (specify)_____
- g) Other (specify)_____

B 19. If the appeal was against the sentence was the original sentence...

- a) Upheld
- b) Reduced (specify by how much)_____
- c) Overturned

B 20. If, after the re-trial, the perpetrator was convicted how much time did he/she serve in jail (including before, during and after the re-trial)

Please be specific _____

B 21. To your knowledge was the perpetrator ordered to attend a court mandated treatment program?

- a) Yes specify type of program _____
- b) No, **GO TO B 23**
- c) Don't know, **GO TO B 23**

B 22. Give details of program including duration, type and agency providing service.

B 23. Was the perpetrator granted parole?

- a) Yes (please give length of time of parole) _____
- b) No

Now I want you to think about the costs to you and your family during the legal process.

B 24. To the best of your ability, please estimate the costs to you and your family during the legal process.

- a) Travel and transportation (cost and # of trips) _____
- b) Child care (cost and # of days) _____
- c) Time off work (rate of pay and # of days) _____
- d) Time off school (# of days) _____
- e) Clothing _____
- f) Meals and hotel accommodation (cost and # of days) _____
- g) Other, (specify) _____

B 25. In the various legal proceedings did you use legal aid?

- a) Yes
- b) No

B 26. If you did not use legal aid, please give an estimate of your and your family's total legal costs.

Please give details _____

OTHER LEGAL PROCESSES

- B 27. Did you seek compensation by any other legal means?
- a) Individual Private Lawsuit
 - b) Class Action Lawsuit
 - c) Victim Compensation Board
 - d) Other, (specify)_____
 - e) No, **GO TO B36**
- B 28. If you sought compensation by private lawsuit or class action, was there a pre trial hearing? If you did not seek compensation by private law suit or class action, **go to B 34.**
- a) Yes
 - b) No
- B 29. Did the case go to court?
- a) Yes
 - b) No, **GO TO B 34**
- B 30. If the case went to court, how was the trial conducted?
- a) By judge
 - b) By judge and jury
- B 31. How long was the trial?
- Duration_____
- B 32. Who testified at the trial?
- a) Yourself
 - b) Doctor
 - c) Police
 - d) Psychologist
 - e) Social worker (specify)_____
 - f) Other expert witness (specify)_____
 - g) Other specify_____
- B 33. If the private law suit succeeded what was the value of the damage award?
- Please specify_____
- B 34. Did you appear before a victim compensation board or any other tribunal?
- a) Yes (specify days)_____
 - b) No, **GO TO B 36**
- B 35. If successful what was the value of the award?
- Please specify_____

Now I would like to ask you about experiences that you might have had yourself with the police and courts.

B 36. Research shows that many individuals who have been traumatized subsequently have trouble with the law. Do you feel that this has happened to you?

- a) Yes
- b) No, **GO TO B 58**

B 37. If yes, have you ever been arrested?

- a) Yes
- b) No, **GO TO B 58**

B 38. Were you charged?

- a) Yes
- b) No, **GO TO B 58**

B 39. After being charged, and prior to trial Were you...

- a) Held in remand/jail prior to trial (specify duration)_____
- b) On bail (specify amount)_____
- c) On own recognizance

B 40. Was there a pre-trial hearing?

- a) Yes
- b) No, **GO TO B 42**

B 41. How long was the pre-trial hearing?

Please try to give the specific number of days_____

B 42. Did your case go to court?

- a) Yes
- b) No, **GOT TO B58**
- c) Plea bargain, **GO TO B47**

B 43. How was your trial conducted?

- a) By judge
- b) By judge and jury

B 44. How long was your trial?

Please try to give the specific number of days_____

B 45. Who testified at the trial? Circle all that apply to you.

- a) Yourself
- b) Doctor
- c) Police
- d) Psychologist
- e) Social worker (specify)_____

- f) Other expert witness (specify)_____
- g) Other (specify)_____

B 46. Were you convicted?

- a) Yes
- b) No, **GO TO B 58**

B 47. If yes, were you imprisoned or fined?

- a) Yes imprisoned, how long_____
- b) Yes fined, how much_____
- c) Was given Community Service (please give duration, type and agency providing services)_____

B 48. How much time in total did you serve in jail (including before, during and after the trial) Please be specific_____

B 49 Was there an appeal?

- a) Yes
- b) No, convicted, **GO TO B 56**
- c) No, found not guilty, **GOT TO B58**

B 50. If the appeal was against conviction and was allowed, was a re-trial ordered?

- a) Yes
- b) No, **GO TO B 54**

B 51. In the re-trial how was the trial conducted?

- c) By judge
- d) By judge and jury

B 52. How long was the re-trial?

Please try to give specific number of days_____

B 53. Who testified at the re-trial?

- a) Yourself
- b) Doctor
- c) Police
- d) Psychologist
- e) Social worker (specify)_____
- f) Other expert witness (specify)_____
- g) Other (specify)_____

B 54. If the appeal was against the sentence was the original sentence...

- d) Upheld
- e) Reduced (specify by how much)_____
- f) Overturned

B 55. If, after the re-trial, you were convicted how much time did you serve in jail (including before, during and after the re-trial)

Please be specific _____

B 56. Were you ordered to attend a court mandated treatment program?

- a) Yes specify type of program _____
- b) No, **GO TO B 58**
- c) Don't know, **GO TO B 58**

B 57. Give details of program including duration, type and agency providing service.

B 58. Following your abuse did you ever run away from home?

- a) Yes
- b) No, **GO TO C 1**

B 59. How did you support yourself while living away from home?

- a) On the street
- b) Prostitution
- c) Criminal activity (for eg theft, dealing drugs etc)
- d) Welfare
- e) Other, (specify) _____

B 60. For how long did you support yourself this way? Please specify in days, months and years.

- a) On the street _____
- b) Prostitution _____
- c) Criminal activity (for eg theft, dealing drugs etc) _____
- d) Welfare _____
- e) Other, (specify) _____

SECTION C: PUBLICLY FUNDED SOCIAL SERVICES

I would now like to ask you some questions about your experiences with social services.

C 1. As a result of the abuse that you suffered, were any social services or volunteer agencies contacted?

- a) Yes
- b) No, **GO TO C 4**

C 2. Which of the following were contacted? Circle all that apply. For each of agency circled please give details of duration and services that you received including number of visits and types of contacts.

a) Children's Aid Society

b) School authorities

c) Public health nurses

d) Crisis line

e) Police domestic violence unit

f) Church provided service

g) A shelter

h) Big Brothers/Big Sisters

i) Counselling services

j) Other (specify)

k) None, **GO TO C 4**

C 3. As a result of the abuse were you ever placed in foster care?

a) Yes

b) No, **GO TO C 6**

C 4. For how long were you in foster care?

Please specify number of times and duration _____

C 5. As an adult did you contact any of the following? Circle all that apply. For each of agency circled please give details of duration and services that you received including number of visits and types of contacts.

a) Crisis line

b) Sexual Assault Crisis Centre

c) Community Counselling Centre

d) Research Agencies dealing with sexual abuse issues

e) Any other support group, (please specify)

SECTION D: EDUCATION AND LABOUR/EMPLOYMENT

I would like to ask some questions about the impact of the abuse on your experience at your school and employment. First we will talk about your experience at school.

D 1. What is the highest level of education that you have completed?

Please give details _____

D 2. Did you have problems in school?

- a) Yes
- b) No, **GO TO D 11**

D 3. Could you please tell us more about what kinds of problems you had in school?

a) Learning problems (specify) _____

b) Behavioural problems (specify) _____

D 4. Did you spend time out of school? Please give details.

a) Yes, please give reasons and frequency _____

b) No, **GO TO D 8**

D 5. Did you drop out of school? Please give details.

a) Yes, (at what age and grade) _____

b) No, **GO TO D 8**

D 6. Did you return to school? How many months and years later? Please give details.

D 7. How did you support yourself during the time you were out of school? Please give details.

D 8. As a result of problems in school were you referred to any special services?

- a) Yes
- b) No, **GO TO D 10**

D 9. Which one (s)? Please specify.

D 10. Do you feel that your problems in school were a consequence of the abuse you experienced as a child? If so, please explain.

Now I am going to ask you some questions regarding your past and current employment.

D 11. Have you ever worked?

- a) Yes
- b) No, **GO TO D 17**

D 12. Please give a summary of your employment history, including length of time in each job.

D 13. Are you currently employed?

- a) Yes
- b) No, **GO TO D 15**

D 14. Please give details of your current job, including length of employment, hours and salary.

- a) Occupation _____
- b) Length of time _____
- c) Hours worked per week _____
- d) Wage or salary _____

D 15. Do you feel that the abuse you have experienced has adversely affected your work performance?

- a) Yes in the past
- b) Yes currently
- c) No, **GO TO D 17**

D 16. How did it adversely affect your work performance? Please give details.

- a) Absences from work (specify time) _____
- b) Lost jobs (quitting, fired, not hired) _____
- c) Missed salary increases
- d) Missed promotions
- e) Chronic unemployment
- f) Other, (specify) _____

D 17. Have you ever been on social assistance?

- a) Yes
- b) No, **GO TO E 1**

D 18. Please give details of how many times, what years and how long you have been on social assistance.

D 19. Have you ever been on employment insurance?

- a) Yes
- b) No, **NO GO TO E 1**

D 20. Please give details of how many times, what years and how long you have been on employment insurance.

SECTION E: HEALTH

I would now like to ask you some questions about the effects of the abuse on both your long-term and short-term health.

SHORT-TERM PROBLEMS

E 1. At the time of the abuse you experienced did you suffer any immediate health problems?

- a) Yes
- b) No, **GO TO E 4**

E 2. Please give details of the problems you experienced immediately following the abuse, including;

a) Diagnosis_____

b) Treatment received_____

c) Medication prescribed_____

d) Visits to professional service providers

Doctor (private family doctor, doctor at emergency clinic) (number of visits)

Dentist, (number of visits)_____

Psychiatrist (number of visits)_____

Chiropractor (number of visits)_____

Physiotherapist (number of visits)_____

Other, (specify)_____

E. 3. Who paid the costs of your treatment?

- a) OHIP
- b) Private Insurance
- c) Family (estimate amount)_____
- d) Self (estimate amount)_____
- e) Other, (specify)_____

LONG-TERM PROBLEMS

E 4. As a result of the abuse you experienced, have you suffered long-term health problems?

- a) Yes
- b) No, **GO TO F 1**

E 5. Please give details of the problems as a result of the abuse.

- a) Diagnosis _____

- b) Treatment received _____

- c) Medication prescribed _____

- d) Visits to professional service providers
 - Doctor (private family doctor, doctor at emergency clinic) (number of visits) _____
 - Dentist, (number of visits) _____
 - Psychiatrist (number of visits) _____
 - Chiropractor (number of visits) _____
 - Physiotherapist (number of visits) _____
 - Other, (specify) _____

E. 6. Who paid the costs of your treatment?

- e) OHIP
- f) Private Insurance (specify payment) _____
- g) Family (estimate amount) _____
- h) Self (estimate amount) _____
- i) Other, (specify) _____

SECTION F: PERSONAL

F 1. Recognising that it may be difficult to recall specific costs please to the best of your ability estimate the costs that you or your family incurred as a result of the abuse you experienced. It is important to us to estimate as accurately as possible the costs to the victims themselves of the abuse. To ensure that we are not missing significant elements, please assist us by being as comprehensive as possible.

- a) Recovery program (specify) \$ _____

- b) Therapy (psychologist, counsellor etc) \$ _____

- c) Alternative therapy \$ _____

- d) Self help materials (books, tapes, seminars) \$ _____

- e) Drugs (prescription) \$ _____

- f) Relocation expenses \$ _____

- g) Drugs (non-prescription) \$ _____

- h) Replacing household goods (if damaged) \$ _____

- i) Transportation (to medical help, shelter etc) \$ _____

- j) Unlisted telephone numbers \$ _____

- k) Security system \$ _____

- l) Self-defense courses or weapons \$ _____

- m) Clothing (if destroyed) \$ _____

- n) Divorce proceedings \$ _____

- o) Child support \$ _____

- p) Other (specify) \$ _____

SECTION G: OTHER

G 1. Did you have any additional costs that have not been included in the questions asked? Please give details.

a) Yes (give details) _____

b) No

G 2. What do you think are the areas of greatest cost to you as a survivor of child abuse.

G 3. Are there any additional comments you would like to make on the issues raised?

G 4. Would you be willing to participate in a further interview on the issues raised in this questionnaire? Please circle.

a) Yes

b) No

Thank you very much for your assistance with our research.

Appendix II: Homewood Survey Results

Section / Question	Variables	Number of Respondents
A1. Age	18-24 years	1
	25-34 years	5
	35-44 years	7
	45-54 years	6
A2. Birthplace	Eastern Canada	5
	Ontario	12
	Western Canada	2
A3. Currently Living	Ontario	17
	Western Canada	2
A4. Sex	Female	17
	Male	2
A5. Marital Status	Married	8
	Unmarried	3
	Common Law	3
	Separated	5
A6. Any Children?	Yes	16
	No	3
A7. Number of Children	1 child	4
	2 children	5
	3 children	7
A8. Type of Abuse Experienced	Witnessing, Physical, Sexual, Emotional	13
	Physical, Sexual, Emotional	1
	Witnessing, Physical, Emotional	4
	Witnessing, Sexual, Emotional	1
A9. Have you Witnessed Abuse?	Yes	18
	No	1
A10. Setting of Witnessed Abuse	Your Home	16
	Friend or Relative Home	7
	Non-residential Institution	6
	Other	7
A11. Type of Abuse Witnessed	Physical, Sexual, Emotional	10
	Physical, Emotional	7
	Sexual, Emotional	1
A12. Perpetrator of Witnessed Abuse	Father	11
	Mother	7
	Sibling	3
	Friend	4
	Relative	6
	Step-father	3
	Neighbour	1
	Other	4

A13. Victim of Witnessed Abuse	Father Mother Sibling Friend Relative Neighbour Other	2 5 14 1 1 1 1
A14. Age when First Witnessed Abuse	0-3 years 4-7 years 8-11 years 12-15 years No answer	3 7 4 1 3
A15. Setting of Experienced Abuse as a Child	Your home Friend/Relative Home Non-residential Institution Other	19 9 6 5
A16. Perpetrator in Home	Father Stepfather Mother Close Relative Family Friend Other	13 3 8 10 1 5
A17. Type of Abuse in Home	Physical, Sexual, Emotional Physical, Emotional Sexual Emotional	15 2 1 1
A18. Age when Abuse Began	0-3 years 4-7 years 8-11 years 12-15 years	9 4 5 1
A19. Number of Incidents in Home	More than Once	19
A20. Over what Period of Time	Less than 1 year 1-3 years 4-7 years 8-11 years 12-15 years 16 + years	1 1 5 5 1 6
A21. Perpetrator in Friend / Relative's Home	Close Relative Family Friend Neighbour Other	6 3 1 2
A22. Type of Abuse Experienced In Friend/ Relative's Home	Physical, Sexual, Emotional Sexual, Emotional Physical, Emotional Sexual Physical	1 1 2 4 1
A23. Age when Abuse Began Friend/Relative's Home	4-7 years 8-11 years 12-15 years	6 1 2
A24. Number of Incidents in Friend/Relative's Home	Once More than Once	1 8

A25. Over what Period of Time Abused in Friend/Relative Home	Less than 1 year 1-3 years 8-11 years 12-15 years	2 3 2 1
A31. Perpetrator of Abuse in a Public Institution	Friend Teacher Other	3 4 1
A32. Type of Abuse in a Public Institution	Physical, Sexual, Emotional Physical, Emotional Sexual, Emotional Emotional	1 3 1 1
A33. Age when Abused Began In a Public Institution	4-7 years 8-11 years 12-15 years No answer	1 2 2 1
A34. Number of Incidents in a Public Institution	More than Once	6
A35. Over what Period of Time In a Public Institution	Less than 1 year 1-3 years 4-7 years	1 4 1
A36. Perpetrator in Any Other Place	Person Known Stranger Someone in Authority Other	3 1 1 1
A37. Type of Abuse in Any Other Place	Physical, Sexual, Emotional Sexual, Emotional Sexual	1 3 1
A38. Age when Abuse Started in Any Other Place	Once More than Once	2 3
A39. Number of Incidents in Any Other Place	Once More than Once	2 3
A40. Over what Period of Time In Any Other Place	Less than 1 year 1-3 years 8-11 years	1 1 1
B1. Were Police Contacted?	Yes No	6 13
B2. Age when Police Contacted	16-19 years 19+ years	2 4
B3. Was Perpetrator Charged?	Yes No	2 4
B4. If Charged was the Perpetrator...	Held in remand/jail	2
B7. Did Case go to Court?	Yes No	1 1
B8. Case Tried by...	No answer	1
B9. Length of Trial	No answer	1
B10. Who Testified at Trial	Police	1
B11. Outcome of Trial	Guilty	1
B12. Punishment of Perpetrator	Imprisoned Fined	1 1
B13. Time Served	1-2 months	1

B14. Was there an Appeal?	No	1
B21. Was a Treatment Program Ordered to Perpetrator?	No	1
B23. Was Parole Granted?	No	1
B25. Did you use Legal Aid?	No	1
B26. Estimated Legal Costs	No answer	1
B27. Other Legal Means Used	Victim Compensation Board No	3 14
B28. Was there a Pre-trial Hearing?	No	3
B29. Did Case go to Court?	No	2
B34. Did you appear before A Tribunal or a Victim Compensation Board?	Yes No Pending	1 1 1
B35. Value of Award	Not Successful	1
B36. Trouble with Law?	Yes No	5 12
B37. Arrested?	Yes	5
B38. Charged?	Yes	5
B39. After being Charged were You...	Held in remand/jail No answer	3 2
B40. Was there a Pre-trial Hearing?	Yes No No answer	1 2 2
B41. Length of Hearing	1 day No answer	1 1
B42. Did Case go to Court?	Yes No	4 1
B43. Trial conducted by...	Judge	4
B44. Length of Trial	1 day	4
B45. Who Testified?	Lawyer Police	3 2
B46. Were you Convicted?	Yes No	3 1
B47. Punishment	Fined Probation	2 1
B48. Total Time Served	None	3
B49. Was there an Appeal?	No, Convicted No, Not Guilty	2 1
B56. Ordered Treatment Program	No	2
B58. Did you ever Run Away From Home?	Yes No	14 3
B59. Means of Support while Away from Home	On the Street Prostitution Welfare Working Other	3 1 1 1 8
B60. Length of Time Away From Home	Less than 1 year 1-3 years 8-11 years No Answer	8 2 1 2

C1. Did you contact any Social Services as a Child?	Yes No	4 15
C2. Services Contacted	Children's Aid Society Community Support Services Church Family Doctor Counselling Services Crisis Line Police Domestic Violence Unit Public Health Shelter School Guidance Other	1 1 3 1 2 1 2 1 1 1 2
C3. Were you placed in Foster Care?	Yes No	2 11
C4. Length of Time in Foster Care	Days Months	1 1
C5. Did you contact and Social Services as an Adult?	Yes No	13 6
C5. Social Services contacted as An Adult	Community Counselling Services Crisis Line Sexual Assault Crisis Centre Research Agency Shelter Church Mental Health Services Family Doctor Other	9 5 6 1 2 1 1 1 3
D1. Education	Grade 10 Grade 11 Grade 12 College University	3 1 6 4 5
D2. Problems in School	Yes No	18 1
D3. Kind of Problems in School	Behavioural Problems Behavioural/Learning Problems	5 13
D4. Did you spend time out of School?	Yes No	14 4
D5. Did you Drop Out of School? If so, When?	No Yes, Unknown Grade/Age Grade 7 Grade 10 Grade 11 Grade 12	6 2 2 4 3 1
D6. Did you Return to School?	Yes No	10 2

D7. Means of Support while Out of School	Worked Friends Mother's Allowance Stayed at Home Foster Care Support from Spouse No answer	6 1 2 1 1 1 1
D8. Were you Referred to Any Special Services?	Yes No	7 11
D9. Which Services?	Counselling Special Education Tutoring Specialist	1 3 1 1
D10. Were problems in School Related to Abuse?	Yes No answer	11 7
D11. Have you Ever Worked?	Yes	19
D12. Employment History	Restaurant Worker Factory Worker Bank Teller Teaching Assistant Registered Practical Nurse Animal Hospital Worker Baker Cosmetician/Hairdresser Retail Worker Babysitter Grocery Store Worker Warehouse Worker Construction Worker Airline Worker Transportation Worker Public Servant Health Care Service Worker Tour Guide Manager Educational Administrator Service Worker Secretary Other	19 4 2 1 1 1 2 3 10 1 6 1 1 1 5 3 5 1 2 2 12 1 13
D12. Duration of Job	Less than 6 months 7-11 months 1-3 years 4-7 years 10 or more years Unknown	23 4 37 19 8 4
D13. Are you Currently Employed?	Yes No	12 7
D14. Salary Range	Less than \$25,000 \$25,001-\$35,000 \$35,001-\$45,000 \$45,001-\$55,000	2 4 4 2

D15. Has Abuse Adversely Affected your Work Environment?	Yes No	18 1
D16. Performance at Work Affected by...	Absences Lost Jobs Missed Salary Increases Missed Promotions Chronic Unemployment Other	14 11 8 8 4 8
D17. Have you ever been on Social Assistance?	Yes No	13 6
D18. Length of Time on Social Assistance	Less than 1 year 1-3 years 4-7 years 12-15 years 16+ years	6 3 2 1 1
D19. Have you ever been on Employment Insurance?	Yes No answer	18 1
D20. Length of Time on Employment Insurance	Less than 1 year 1-3 years	9 9
E1. Did you suffer any Immediate Health Problems?	Yes	19
E2. Visits to Professional Service Providers at time of Abuse	Family Doctor Emergency Psychiatrist Dentist Specialist Other No answer	7 3 1 1 1 1 6
E2. Number of Visits to Family Doctor	Once More than once No answer	1 1 5
E2. Number of Visits to Emergency	Once More than once No answer	2 0 1
E2. Number of Visits to Psychiatrist	Once More than once No answer	1 0 0
E2. Number of Visits to Dentist	Once More than once No answer	0 0 1
E2. Number of Visits to Specialist	Once More than once No answer	1 0 0
E2. Number of Visits to Other Professional Service Provider	Once More than once No answer	0 0 6

E2. Details of Immediate Health Problems	Headaches	12
	Insomnia	1
	Cuts/Bruises	6
	Rashes	4
	Menstruation Problems	2
	Stomach Problems	2
	Neck Problems	1
	Ulcers	1
	Skin Problems	2
	Yeast Infection	2
	Dizziness	1
	Loss of appetite	1
	Stress	2
	Burns	1
Eating Disorders	3	
Other	13	
E3. Who Paid?	OHIP	14
	Private Insurance	1
	No answer	1
E4. Have you suffered Long-Term Health Problems Resulting from the Abuse	Yes	19
E5. Visits to Professional Service Providers in the Long-Term	Family Doctor	17
	Emergency	11
	Dentist	3
	Psychiatrist	13
	Chiropractor	9
	Physiotherapist	9
E5. Number of Visits to Family Doctors	Once	0
	More than once	10
	No answer	7
E5. Number of Visits to Emergency	Once	2
	More than once	9
	No answer	0
E5. Number of Visits to Dentist	Once	0
	More than once	0
	No answer	3
E5. Number of Visits to Psychiatrist	Once	1
	More than once	12
	No answer	0
E5. Number of Visits to Chiropractor	Once	1
	More than once	7
	No answer	1
E5. Number of Visits to Physiotherapist	Once	9
	More than once	0
	No answer	0
E5. Number of Visits to Other Professional Service Provider	Once	0
	More than once	3
	No answer	1

E5. Details of Long-Term Health Problems	Panic Attacks	7
	Ulcers	1
	Anxiety	10
	PTSD	16
	PMDD	1
	Depression	13
	Headaches	2
	Eating Disorders	5
	Alcoholism	3
	Allergies	1
	Skin Problems	1
	Kidney Problems	2
	Stomach Problems	1
	Insomnia	1
	Suicidal Tendencies	5
	Menstruation Problems	1
Blood Pressure Problems	2	
Other	12	
E6. Who Paid?	OHIP	13
	Private Insurance	7
	Self	9
	Family Member	1
E6. Estimated Costs to Self	\$300	1
	\$700	1
	\$1,000	2
	\$2,000	1
	\$4,000	1
	\$10,000	2
G1. Any Additional Costs?	No	19
G4. Interested in Further Interview?	Yes	12
	No	1
	No answer	3

Appendix III

VI. The Economic Costs of Child Abuse in Canada

This appendix provides detailed descriptions of how the costs given in Section VI were calculated. Please refer to the text for references regarding the source of each figure. Standard errors are given in parentheses for all numbers calculated from the OHSUP data by the authors.

A. Prevalence

Adult Survivors

% of males experienced physical or sexual abuse in childhood	33.0%
Canadian over 15 male population	11,716,295
Incidence of child abuse in adult males (% abused x population)	3,866,377

% of females experienced physical or sexual abuse in childhood	27.0%
Canadian over 15 female population	12,166,706
Incidence of child abuse in adult females (% abused x population)	3,285,011

Total incidence of child abuse in adults (males and females)	7,151,388
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% of males experienced severe physical or sexual abuse in childhood	13.2%
Canadian over 15 male population	11,716,295
Incidence of severe child abuse in adult males	1,546,551

% of females experienced severe physical or sexual abuse in childhood	15.9%
Canadian over 15 female population	12,166,706
Incidence of severe child abuse in adult females	1,934,506

Total incidence of severe child abuse in adults (males and females)	3,481,057
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Child Victims

Number of male children who are victims of child abuse	208,837
Canadian male population 0-15	3,231,990
% of males with a substantiated or suspected case of child abuse	6.46%

Number of female children who are victims of child abuse	225,572
Canadian female population 0-15	3,069,280
% of females with a substantiated or suspected case of child abuse	7.35%

Total incidence of child abuse in children (males and females)	434,409
Total incidence rate among children	6.89%

B. Cost Calculations

1. Judicial

Police Costs

Police expenditures for 1997/98 fiscal year	\$6,000,000,000
Number of reported criminal offences	2,476,210
% of reported offences that are sexual assaults	0.96%
% of reported sexual assaults with adult perpetrators and child victims	41.40%
% of reported offences that are physical assaults	8.94%
% of reported physical assaults with adult perpetrators and child victims	8.73%
% of reported criminal offences related to child abuse	1.18%
Police costs associated with child abuse (.0188 x \$6,000,000,000)	\$70,800,000
Consumer price index 1998/1997	1.00929
Total police costs of child abuse , adjusted from 1997 dollars to 1998 dollars (\$70,800,000 x 1.00929)	\$71,457,732

Court Costs

# of adult criminal cases tried in provincial courts (Manitoba excluded)	471,919
Population of provinces (Manitoba excluded)	29,010,875
Cases per capita	0.01627
Population of Manitoba	1,137,943
Calculated number of adult criminal cases in Manitoba (.01627 x 1,137,943)	18,514
Number of cases heard by the Manitoba Family Violence Court (FVC) 1991 and 1992	4,460
Number of child abuse cases heard by FVC in 1991 and 1992	733
% of all cases that are child abuse cases {(733/2)/18,514}	1.98%
Criminal court costs in Canada in 1998	\$278,284,400
Total court costs related to child abuse (.0198 x \$278,284,400)	\$5,510,031

Legal Aid

Total Legal Aid expenditures in the provinces	\$494,400,000
% of expenditures for criminal trials	44%
Total expenditures on criminal trials (.44 x \$494,400,000)	\$217,536,000
% of criminal trials that pertain to child abuse (see court costs)	1.98%
Legal Aid expenditures on child abuse trials (.0198 x \$217,536,000)	\$4,307,213
% of revenues from client contributions and recoveries	3%
Expenditures on child abuse trials funded by client contributions and recoveries (.03 x \$4,307,213)	\$129,216
Total Legal Aid costs related to child abuse (\$4,307,213 - \$129,216)	\$4,177,997

Criminal Injuries Compensation Board

Amount awarded to sexual assault victims in the first quarter of 1999/00 fiscal year	\$624,000
% of reported sexual assaults by adults with child victims	51.97%
Amount awarded to sexual assault child abuse victims ($.5197 \times \$642,000 \times 4$)	\$1,297,171

Amount awarded to physical assault victims in the first quarter of 1999/00 fiscal year	\$649,600
% of reported physical assaults by adults with child victims	10.74%
Amount awarded to physical assault child abuse victims ($.1074 \times \$649,600 \times 4$)	\$279,068

Total awarded to child abuse victims in 1999 dollars ($\$1,297,171 + \$279,068$)	\$1,576,239
Consumer Price Index 1998/1999	.9828

Total CICB costs related to child abuse ($\$1,576,239 \times .9828$) **\$1,549,128**

Penal Costs**Federal Incarceration**

Average annual population of inmates in federal custody	13,178
% of inmates that are female	2%
% of inmates that are male	98%
# of female inmates in federal custody ($.02 \times 13,178$)	264
# of male inmates in federal custody ($.98 \times 13,178$)	12,914
% of males incarcerated because of a sexual offence	14%
% of reported sexual assaults perpetrated by adults with child victims	51.97%
% of males incarcerated due to child sexual abuse ($14\% \times 51.97\%$)	7.28%
% of males incarcerated for a physical assault	4%
% of reported physical assaults perpetrated by adults with child victims	10.74%
% of males incarcerated due to child physical assault ($4\% \times 10.74\%$)	.43%
% of males incarcerated for child abuse ($7.28\% + .43\%$)	7.71%
Number of males incarcerated for child abuse ($.0771 \times 12,914$)	996
% of male inmates with a history of child abuse	50.2%
Number of male inmates with a history of child abuse ($.502 \times 12,914$)	6,483
% of male child abuse survivors in prison ($6,483 / 3,866,377$)	.1677%
% of non-abused males in prison ($(12,914 - 6,483) / (11,716,295 - 3,866,377)$)	.0819%
Differential rate of prison ($.1677\% - .0819\%$)	.0858%
Number of males incarcerated related to abuse ($.000858 \times 3,866,377$)	3,317
% of inmates with a history of child abuse who are child abuse perpetrators	11.9%
# of males incarcerated federally for child abuse crimes who have a history of abuse ($3,317 \times .119$)	395
# of males incarcerated federally for crimes other than child abuse who have a history of abuse ($3,317 - 395$)	2,922
# of males incarcerated federally related to child abuse ($2,922 + 395$)	3,317
Cost per year for a male inmate	\$59,661
Cost of incarceration related to child abuse for male federal inmates ($3,317 \times \$59,661$)	\$233,751,798

% of females incarcerated because of a sexual offence	1%
% of reported sexual assault with child victims	51.97%
% of females incarcerated due to child sexual abuse (1% x 51.97%)	.52%
% of females incarcerated for a physical assault	10%
% of reported physical assaults perpetrated by adults with child victims	10.74%
% of females incarcerated due to child physical assault (10% x 10.74%)	1.07%
% of females incarcerated for child abuse (.52% + 1.07%)	1.59%
Number of females incarcerated for child abuse (.0159 x 264)	4
% of females incarcerated with a history of child abuse	60.5%
Number of female inmates with a history of child abuse (.605 x 264)	160
% of female child abuse survivors in prison (160 / 3,285,011)	.0049%
% of non-abused females in prison (264-160) / 12,166,706 – 3,285,011)	.0012%
Differential rate of prison (.0049% - .0012%)	.0037%
Number of females incarcerated related to abuse (.000037 x 3,285,011)	122
% of inmates with a history of child abuse who are child abuse perpetrators	11.9%
# of females incarcerated federally for child abuse crimes who have a history of abuse (min(122 x .119,4))	4
# of females incarcerated federally for crimes other than child abuse who have a history of abuse (122 - 4)	118
# of females incarcerated federally related to child abuse (4 + 118)	122
Cost per year for a female inmate	\$113,610
Cost of incarceration related to child abuse for female federal inmates (122 x \$113,610)	\$13,860,420
Total costs of federal incarceration related to child abuse	
(\$233,751,798 + \$13,860,420)	\$247,612,218

Provincial Incarceration

Average daily count of offenders in provincial custody	19,233
% of inmates that are female	7%
Number of female inmates (.07 x 19,233)	1,346
% of inmates that are male	93%
Number of male inmates (.93 x 19,233)	17,887
% of males incarcerated because of a sexual offence	7%
% of reported sexual assaults perpetrated by adults with child victims	51.97%
% of males incarcerated due to child sexual abuse (7% x 51.97%)	3.64%
% of males incarcerated for a physical assault	11%
% of reported physical assaults by adults with child victims	10.74%
% of males incarcerated for child physical assault (11% x 10.74%)	1.18%
% of males incarcerated for child abuse (3.64% + 1.18%)	4.82%
Number of males incarcerated for child abuse (.0482 x 17,887)	862
% of male inmates with a history of child abuse	50.2%
Number of male inmates with a history of child abuse (50.2 x 17,887)	8,979
% of male child abuse survivors in prison (8,979 / 3,866,377)	.2322%
% of non-abused males in prison (17,887 – 8,979) / 11,716,295 – 3,866,377)	.1135%
Differential rate of prison (.2322% - .1135%)	.1187%
Number of males incarcerated related to abuse (.001187 x 3,866,377)	4,589

% of inmates with a history of child abuse who are child abuse perpetrators	11.9%
# of males incarcerated provincially for child abuse crimes who have a history of abuse (4,589 x .119)	546
# of males incarcerated provincially for crimes other than child abuse who have a history of abuse (4,589 – 546)	4,043
# of males incarcerated provincially related to child abuse (862 + 4,043)	4,905
Cost per day for an inmate	\$122.65
Cost of males incarceration related to child abuse (4,905 x \$122.65 x 365)	\$219,582,135
% of females incarcerated because of a sexual offence	2%
% of reported sexual assaults perpetrated by adults with child victims	51.97%
% of females incarcerated due to child sexual abuse (2% x 51.97%)	1.04%
% of females incarcerated for a physical assault	9%
% of reported physical assaults perpetrated by adults with child victims	10.74%
% of females incarcerated due to child physical assault (9% x 10.74%)	.97%
% of females incarcerated for child abuse (1.04% + .97%)	2.01%
Number of females incarcerated for child abuse (.0201 x 1,346)	27
% of female inmates with a history of child abuse	60.5%
Number of female inmates with a history of child abuse (.605 x 1,346)	814
% of female child abuse survivors in prison (814 / 3,285,011)	.0248%
% of non-abused females in prison (1,346 – 814) / (12,166,706 – 3,285,011)	.0060%
Differential rate of prison (.0248% - .0060%)	.0188%
Number of females incarcerated related to abuse (.000188 x 3,285,011)	618
% of inmates with a history of child abuse who are child abuse perpetrators	11.9%
# of females incarcerated provincially for child abuse crimes who have a history of abuse (min(618 x .119,27))	27
# of females incarcerated provincially for crimes other than child abuse who have a history of abuse (618 - 27)	591
# of females incarcerated provincially related to child abuse (27 + 591)	618
Cost per day for an inmate	\$122.65
Cost of female incarceration related to child abuse (618 x \$122.65 x 365)	\$27,666,006
Total costs of provincial incarceration related to child abuse (\$219,582,135 + \$27,666,006)	\$247,248,141
Total costs of incarceration related to child abuse (\$247,612,218 + \$247,248,141)	\$494,860,359
Conditional Release	
Average offender count on conditional release	9,925
% of admission to probation that are violent offenders	39%
# of offenders on conditional release after a violent crime (.39 x 9,925)	3,871
% of reported violent crimes that are physical assaults	76%
% of physical assaults perpetrated by adults with child victims	10.74%
% of reported violent crimes that are sexual assaults	8%
% of reported sexual assaults with child victims	51.97%
% of offenders that abused a child (76% x 10.74% + 8% x 51.97%)	12.32%

# of offenders on conditional release for child abuse (.1232 x 3,871)	477
% of offenders with a history of child abuse	50.2%
Number on release with a history of child abuse (.502 x 9,925)	4,982
% of child abuse survivors on release (4,982 / 7,151,388)	.0697%
% of non-abused persons on release (9,925 - 4,982) / (23,883,001 - 7,151,388)	.0295%
Differential rate of conditional release (.0697% - .0295%)	.0402%
Number of persons on release related to abuse (.000402 x 7,151,388)	2,875
% on release with a history of child abuse who are child abuse perpetrators	11.9%
# on release for child abuse crimes who have a history of abuse (2,875 x .119)	342
# on release for crimes other than child abuse who have a history of abuse (2,875 - 342)	2,533
# on release related to child abuse (477 + 2,533)	3,010
Cost of supervision of conditional release per offender per year	\$13,000
Total costs of conditional release related to child abuse (\$13,000 x 3,010)	\$39,130,000
Total Judicial Costs related to child abuse	\$616,685,247

2. Social Services

Provincial/Territorial Child Services and Child Protection

Background material:

# of social services cases opened for CIS	9,909
# related to maltreatment	5,449
% related to maltreatment (5,449 / 9,909)	55%
% substantiated or suspected	67%
% cases related to child abuse (55% x 67%)	36.9%
Alberta Health costs	\$4,341,000,000
Alberta Social Services	\$1,603,000,000
Alberta Children's Services	\$455,148,000
Alberta expenditure on child abuse (see Alberta calculation)	\$130,833,043
% of Total Health and Social Services on child abuse	2.2%
Nova Scotia:	
Community Services: Family and Children's Services (\$106,021,000 x 82% x 36.9%)	\$32,079,834
Provincial Total 1999/2000	\$32,079,834
Adjusted for 1998 dollars (\$32,079,834 x .9829)	\$31,528,061
Alberta:	
Children's Services: Program Support (\$14,891,000 x 36.9%)	\$5,494,779
Child Welfare (\$260,509,000 x 36.9%)	\$96,127,821
Early Intervention (\$18,010,000 x 36.9%)	\$6,645,690
Family Violence Prevention (9,304,000 x 100%)	\$9,304,000
Family and Community Support (\$35,937,000 x 36.9%)	\$13,260,753
Provincial Total	\$130,833,043

British Columbia:	Children in Care (\$217,005,000 x 36.9%)	\$80,074,845
	Adoption program (\$3,064,000 x 7.7%)	\$235,928
	Residential Services (\$254,408,000 x 36.9%)	\$93,876,552
Provincial Total		\$174,187,325
Saskatchewan:	Family and Youth Community Services (\$33,649,000 x 36.9%)	\$12,416,481
	Family and Youth CBO Services (\$16,415,000 x 36.9%)	\$6,057,135
	Family and Youth Administration (\$2,731,000 x 36.9%)	\$1,007,739
	Facilities for Children and Youth (\$23,121,000 x 36.9%)	\$8,531,649
Provincial Total		\$28,013,004
Prince Edward Island:		
Health and Social Services:	Child and Family Services (\$58,707,900 x 36.9%)	\$21,663,215
Provincial Total		\$21,663,215
Manitoba:		
Family Services and Housing:	Family Conciliation (\$1,027,100 x 36.9%)	\$379,000
	Protection and Support (\$130,508,600 x 36.9%)	\$48,157,673
	Family Violence Prevention (\$8,463,000 x 100%)	\$8,463,000
Provincial Total 1999/2000		\$56,999,673
Adjusted for 1998 dollars (\$56,999,673 x .9828)		\$56,019,279
Ontario:		
Community and Social Services:	Children's Services (\$885,000,000 x 36.9%)	\$326,565,000
	Program and Administration costs (\$29,000,000 x 13.3%)	\$3,857,000
Women's Directorate:	Community Safety (\$18,000,000 x 100%)	\$18,000,000
Provincial Total		\$348,422,000
New Brunswick:		
Family and Community Services:	Program Support (\$3,565,000 x 36.9%)	\$1,315,485
	Community Social Services (\$173,975,900 x 36.9%)	\$64,197,107
Provincial Total		\$65,512,592
Newfoundland:	Health and Community Services (\$1,086,937,000 x 2.2%)	\$23,924,508
Provincial Total		\$23,924,508
Quebec:	Health and Social Services (\$12,993,833,500 x 2.2%)	\$286,006,524
Provincial Total		\$286,006,524
Nunavut:	Health and Social Services (\$123,400,000 x 2.2%)	\$2,716,150
Territorial Total 2000/2001		\$2,716,150
Adjusted for 1998 dollars (\$2,716,150 x .9568)		\$2,598,813
Yukon:	Health and Social Services (\$122,449,000 x 2.2%)	\$2,695,218
Territorial Total 1999/2000		\$2,695,218
Adjusted for 1998 dollars (\$2,695,218 x .9828)		\$2,648,860
Northwest Territories:	Health and Social Services (\$261,366,000 x 2.2%)	\$5,752,912
Territorial Total		\$5,752,912
Total provincial and territorial social service costs for child abuse		\$1,177,110,136

Private Social Services

% of Kids Help Phone calls related to child abuse/violence	14%
Kids Help Phone expenditures	\$6,800,614
Total private social services costs for child abuse	\$952,086
Total Social Services Costs related to child abuse	\$1,178,062,222

3. Education**Special Education**

# of children in behavioural/learning disability special education in Ontario	58,240
# of students in Ontario	2,015,468
% of students in behavioural/learning disability special education in Ontario (58,240 / 2,015,468)	2.89%
# of children in behavioural / learning disability special education in B.C.	36,076
# of students in B.C.	637,724
% of students behavioural / learning disability special education in B.C. (36,076 / 637,724)	5.66%
# of students in behavioural / learning disability special education in Ontario and B.C. (58,240 + 36,076)	94,316
# of students in Ontario and B.C. (2,015,468 + 637,724)	2,653,192
% of students in behavioral / learning disability special education in Ontario and B.C. (94,316 / 2,653,192)	3.55%
Total number of students in Canada	5,414,344
# of students in behavioural special education in Canada (5,414,344 x .0355)	192,209
% of abused children in special education	6.56%
% of children abused ages 5-15	8.90%
# of abused children in Canada in school (.089 x 5,414,344)	481,877
# of abused children in special education (.0656 x 481,877)	31,611
# of non-abused children in special education (192,209 – 31,611)	160,598
# of non-abused students in Canada (5,414,344 x .911)	4,932,467
% of non-abused children in special education (160,598 / 4,932,467)	3.26%
Difference between abused and non-abused percentages (6.56% - 3.26%)	3.3%
# of abused children in special education over and above non-abused likelihood (.033 x 481,877)	15,902
Ontario special education allotment	\$217/student
Spending on special education in 1999 (\$217 x 5,414,344)	\$1,174,912,648
CPI inflation adjustment factor	0.9828
Spending in 1998 dollars	\$1,154,704,150
% for behavioural special education	25%
Spending on behavioural special education (.25 x \$1,154,704,150)	\$288,676,038
Per capita spending on behavioural special education (\$288,676,038 / 192,209)	\$1,502
Total special education costs due to child abuse (15,902 x \$1,502)	\$23,882,994
Total Education Costs related to child abuse	\$23,882,994

4. Health

Immediate Medical Costs for Children

Family Doctor Visits

# of children that required medical treatment as a result of maltreatment	3,148
Cost of visit to the family doctor	\$52.20
Cost of doctor visits due to child maltreatment ($\$52.20 \times 3,148$)	\$164,326

Emergency Clinic Visits

# of children admitted to hospital due to maltreatment	2,359
Assumed cost of visit to the emergency room	\$30.85
Cost of emergency room visits due to maltreatment ($\$30.85 \times 2,359$)	\$72,775

Total immediate medical costs due to child abuse ($\$164,326 + \$72,775$) **\$237,101**

Long-Term Medical Costs for Adults

Health Practitioner Visits

Visits per year among adults not severely abused	5.24 (.17)
Visit per year among severe abused survivors	6.33 (.40)
Number of visits due to abuse ($3,481,057 \times (6.33 - 5.24)$)	3,794,352
Cost of a visit to a general practitioner	\$52.20
Total costs of health practitioner visits due to child abuse	\$198,065,181

Emergency Room visits

Visits per year among non-abused adults	.30 (.02)
Visits per year among abuse survivors	.41 (.03)
Number of visits due to abuse ($7,151,388 \times (.41 - .30)$)	786,653
Cost of a visit to the emergency room	\$30.85
Total costs of emergency room visits due to child abuse	\$24,268,235

Total long-term medical costs due to child abuse **\$222,333,416**

Total Health Costs related to child abuse ($\$237,101 + \$222,333,416$) **\$222,570,517**

5. Employment

Lost Earnings Due to Child Abuse (non-incarcerated population)

Earnings differential between physically abused only adults (25-64) and those not physically abused	\$3,098.23 (1019.24)
Percentage of 25-64 population that are physically abused only	21.9% (1.0)
Total lost earnings due to child abuse ($\$3,098.23 \times .219 \times 16,442,953$)	\$11,156,747,010

Lost Earnings Due to Incarceration

# of males incarcerated for or due to child abuse	8,823
Average wage for a male without a high school diploma	\$15,651
Lost earnings due to incarceration of male perpetrators of child abuse (8,823 x \$15,651)	\$138,088,773
# of females incarcerated for or due to child abuse	740
Average wage for a female without a high school diploma	\$6,440
Lost earnings due to incarceration related to child abuse (740 x \$6,440)	\$4,765,600
Total lost earnings due to incarceration (\$138,088,773 + \$4,765,600)	\$142,854,373
Total Employment Costs due to abuse (\$11,156,747,010 + \$142,854,373)	\$11,299,601,383

6. Personal Costs

Annual personal costs for severe abuse survivors	\$478
Personal costs for severe abuse survivors (\$478 x 3,481,057)	\$1,663,945,246
Annual personal costs for mild abuse survivors	\$191
Personal costs for mild abuse survivors (\$191 x 3,670,331)	\$701,033,221
Legal Aid personal costs	\$129,216
Total Personal Costs due to child abuse (\$1,663,945,246 + \$701,033,221+\$129,216)	\$2,365,107,683
Total Costs of Child Abuse	\$15,705,910,047