

Uncovering the Cost of Intimate Partner Violence Against Women in Dallas County, Texas

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ABSTRACT

This paper explores the consequences of intimate partner violence against women in Dallas County, Texas, in 2004. Using historical data from various agencies, the study estimated the direct cost attributed to intimate partner violence against women. The study also estimated the indirect cost expended by agencies that provide services to victims and families impacted by intimate partner violence. The authors draw upon a variety of sources to estimate the cost associated with intimate partner violence against women. They find that the impact of intimate partner violence against women extends far beyond its direct impact on the victim. The authors discuss these empirical findings as well as the methodological limitations.

Keywords

intimate partner violence, domestic violence, violence against women

Introduction

In recent years, the state of Texas has experienced an overwhelming number of incidents involving intimate partner violence perpetrated against women. According to the Texas Council on Family Violence (TCFV, n.d.[a]) a total of 116 women were killed by their intimate partners in 2004. This figure is well above the national average of intimate partner homicides, and it indicates that intimate partner violence against women is a serious issue in the state of Texas.

In 2004, an estimated 966 women were killed by their intimate partners nationwide (Violence Policy Center, 2006). This means that in the United States, in 2004, more than two women per day—almost 19 women per week or almost 81 women per month—died as the result of intimate partner homicide. Using the TCFV (n.d.[a]) numbers, we can estimate that in Texas in 2004, 2 women per week, or 10 women per month, were murdered as a result of intimate partner violence—12% of the national total. The Texas Department of Health (TDH, 2004) also reported that 47% of all Texans experience intimate partner violence in their lifetimes.

The Crime in Texas Annual Report 2004 (TDPS, n.d.) identified 182,087 incidents, 195,042 victims, and 190,865 offenders of family violence in Texas in 2004. More than half (51%) of the incidents involved marital relationships, either legal or common law.¹ The majority of victims and offenders were between 20 and 44 years of age. Assaults accounted for 97% of all family violence offenses, with most assaults (73%) characterized as simple assault. Correspondingly, the majority of injuries (53%), as determined by the responding officer, were minor. Major or serious injuries were reported in only 4% of family violence cases.

Given the magnitude of the problem of domestic violence, it is important for citizens and policy makers to better understand its impact on the community. This report addresses the direct and indirect costs associated with domestic violence in Dallas County, Texas. Dallas is the ninth largest city in the United States. It is the third largest city in the state of Texas. Nearly a tenth of the women killed by their intimate partners in Texas in 2004 were killed in Dallas County (TCFV, n.d.[a]).

¹ The Texas Family Code was amended to include dating violence. However, this category of violence was excluded from the data presented on family violence in the Crime in Texas Annual Report 2004 (TDPS, 2004), and consequently is excluded from this discussion.

Intimate Partner Violence in Dallas County

In March 2004, Helen O'Neal was shot and killed by her husband. A month later, Monica Hardman was shot and killed by her boyfriend. Hardman's boyfriend later killed himself in a shootout with the police. Just hours before her death, Hardman reported that her tires had been slashed. She had previously filed several reports of physical abuse. She was survived by five children. These are only 2 of 13 cases of intimate partner homicide reported in Dallas County in 2004 (TCFV, n.d.[b]).

While the number of violent acts that occurred in 2004 seems relatively small, it speaks volumes about the pervasiveness of violent acts against women in Dallas County. A closer inspection of these 13 cases revealed the following alarming facts: the victims ranged in age from 19 to 68 with a mean age of 38; there were eight children left parentless and homeless as a result of these 13 cases; three children were shot and one adult male was killed; two offenders were sentenced to life in prison; and one offender was killed by police and four others committed suicide at or near the scene of the killings.

The Family Violence Unit of the Dallas Police Department, established in 1989, reported 15,496 family violence offenses in 2004 within the city of Dallas (The Family Place, n.d.). This was down from 18,235 family violence offenses reported by the Department in 2002, when family violence accounted for 27% of violent crime. Family violence was second only to assault, which accounted for 45% of violent crime, and was twice as prevalent as aggravated assault, which accounted for 13% of total violent crime. These proportions have not changed significantly over the past 2 years. In 2004, The Family Place, one of the three largest family violence shelters in Dallas County, received 20,831 hotline and referral calls, and the Emergency Shelter program provided services to 1,000 women and children, including food, short-term housing, and counseling (The Family Place, n.d.).

The information presented here is important because it underscores the pervasiveness of domestic violence in Dallas County, and it holds important cues we believe can be used to determine the costs associated with domestic violence against women in Dallas County. In conceptualizing the problems associated with intimate partner violence, we are most immediately (and understandably) concerned, with the direct costs of victimization to the female victim. Also important, however, are the indirect costs. While indirect costs tend to be somewhat distant from the actual victimization, they are important for explaining the fiscal disruption to associative social institutions (e.g., the

family, social services agencies, and law enforcement). Finally, there are collateral costs associated with such victimizations. This idea is perhaps best encapsulated by Rhode Island Women's Prison Warden Roberta Richmond, who stated, "When you lock a man up, the family unit usually stays intact. . . . When you lock a woman up, you're destroying families" (as cited in Gaouette, 1997).

Similarly, when violence against women, and particularly intimate partner violence, is allowed to persist without intervention, families are destroyed. Moreover, the potential costs for a number of public agencies (e.g., health, education, and juvenile and adult corrections) grow. This supposition, together with the contextual information provided, established the basis for our inquiry into the nature of intimate partner violence against women in Dallas County.

Our inquiry was guided by three fundamental questions that reflect the direct and indirect costs associated with intimate partner violence against women:

1. What are the direct costs of intimate partner violence against women?
2. What are the associative costs of female intimate partner violence to local agencies such as children's services, shelters, and law enforcement?
3. What other costs are incurred because of intimate partner violence against women?

The purpose of our study was to examine the estimated costs of family violence in Dallas County for the year 2004. We were particularly interested in family violence that resulted in physical injury or the threat of physical injury in intimate partner relationships.

Our inquiry began with a review of the extant literature on the cost of intimate partner violence. We have provided an analysis of selected direct and indirect costs associated with intimate partner violence against women in Dallas County. These include the costs pertaining to both fatal and nonfatal intimate partner violence, the cost of medical care for the victims, the loss of productivity due to intimate partner violence, the cost of maintaining family violence units, the cost of maintaining children's services and intimate partner violence centers, and additional collateral costs.

How Do We Calculate the Cost of Violence Against Women?

A number of recent studies have attempted to calculate the costs of violence against women (National Center for Injury Prevention and Control [NCIPC], 2003; Dolan, Loomes, Peasgood, & Tsuchiya, 2005; Drach, 2005; Envall & Eriksson, 2006; TDH, 2004; Tennessee Economic Council on Women, 2006; Walby, 2004). In 1994, Congress funded a study by the Centers for Disease Control and Prevention (CDC) to provide national estimates of injuries and health care costs related to intimate partner violence in the United States (NCIPC, 2003). Their report, published in 2003, was based on data collected in 1995 from a National Violence against Women Survey (NVAWS), and reported that there were an estimated 4.5 million intimate partner physical assaults that year, and that slightly more than 4 of every 10 physical assault victims were injured, with the majority of injuries characterized as minor injuries (NCIPC, 2003).

Researchers have included the victims' use of medical care services, use of mental health care services, and victims' lost productivity in their calculations. Data on intimate partner homicides were also included in the analysis. Both CDC (NCIPC, 2003) and Drach (2005) divided the economic costs of intimate partner violence into direct costs (the actual dollar expenditures related to intimate partner violence), and indirect costs (the value of lost productivity from paid work and household chores for injured victims as well as the present value of lifetime earnings for victims of fatal intimate partner violence).

CDC (NCIPC, 2003) estimated the total economic cost of intimate partner violence nationally to be \$5.8 billion each year. Because physical assaults (73%) and homicides (15%) accounted for almost 89% of all intimate partner violence victimizations, it is fair to say these two types of victimizations contributed substantially to the costs of violence. Max, Rice, Sung, and Michel (2004) calculated that, translated into 2003 dollars, these intimate partner violence costs would have been more than \$8.2 billion, with \$6.2 billion attributed to physical assaults.

Using data from the CDC (NCIPC, 2003) report and other data sources, the Violence Against Women Prevention Advisory Committee (TDH, 2004) developed *A Strategic Plan to Prevent Violence Against Women in Texas*. The committee noted that violence against women led to serious health outcomes. These outcomes were defined as either fatal (homicide, suicide,

maternal mortality, and AIDS-related) or nonfatal (those related to physical health, chronic conditions, mental health, negative health behaviors, and reproductive health).

A number of studies on the cost of intimate partner violence have been conducted in the United Kingdom. Notably, Walby (2004) argued that understanding the real cost of intimate partner violence experienced by the victims, the state, and employers would increase the ways in which policy interventions could be developed, introduced, and evaluated. Walby noted that three things were needed to estimate the real cost of intimate partner violence: (a) information on the extent and nature of intimate partner violence; (b) the measure of the extent and nature of the impact of intimate partner violence; and (c) an estimation of the cost of providing services, of lost economic output, and of the public's willingness to pay to avoid the human costs of pain and suffering. Walby estimated that the total cost of intimate partner violence in the U.K. in 2001 was approximately 23 billion pounds (roughly equivalent to \$47 billion in U.S. dollars). This estimate included costs for the criminal justice system, health care, social services, housing, civil legal services, and economic output, as well as the human and emotional costs.²

Dolan, Loomes, Peasgood, and Tsuchiya (2005) focused on the difficulty of measuring the intangible costs of violence, including the pain and suffering inflicted upon victims and their families, as well as the resulting fear of crime among those in the larger society. They noted that Walby (2004) reported that pain and suffering accounted for 75% of all costs from intimate partner violence. Dolan et al. examined a number of methods for estimating the costs of violent crime. They suggested that QALYs—the number of quality-adjusted life years that victims of crime lose, which is a proxy for pain and suffering—was one of the most promising approaches. However, they acknowledged that this approach was problematic and called for more debate, which may one day lead to better methodology in estimating intangible victim costs.

Drach (2005) used data gathered from a survey conducted by the Oregon Department of Human Services in 2001 to determine the extent

² Walby (2004) estimated that the human and emotional cost of intimate partner violence in the U.K. was approximately 17 billion pounds, or 74% of the total costs of intimate partner violence.

and impact of intimate partner violence. Adopting the format used by CDC (NCIPC, 2003), they estimated that, in 2001, intimate homicide and physical assaults cost a little more than \$40 million. Their estimate included the costs of health care and lost productivity from paid work and lifetime earnings. Drach (2005) noted an inability to estimate costs related to law enforcement, criminal justice services, and social services to adult victims, children, and families because data was either unavailable or insufficient.

Envall and Eriksson (2006) demonstrated the difficulty of attempting to estimate the cost of intimate partner violence in Sweden. They, too, examined both direct and indirect costs. Direct costs, which the authors defined as resource consumption in preventing, repairing, and alleviating the effects of violence, included costs borne by health care and medical services; the criminal justice system (police, public prosecutors, courts, prisons, and probation services); social services; women's shelters and victim support centers; public sector treatment and support for violent men; central government agencies; and the social insurance administration. This amounted to somewhere between \$304 and \$390 million in U.S. dollars. The indirect costs—defined as production lost³ and the intangible costs of pain, anxiety, and suffering—were estimated at between \$110 and \$117 million in U.S. dollars. Envall and Eriksson acknowledged that they were not able to calculate costs for dental services, medicines, mental health care, damage to children, and pain and suffering.

More specifically, in calculating the costs of intimate partner violence in Sweden, Envall and Eriksson (2006) estimated that each year at least 75,000 women were subjected to intimate partner violence, 16 women were killed, 1 woman committed suicide as a result of intimate partner violence, 4 men committed suicide in connection with killing a partner/ex-partner, at least 210 women were treated in the hospital, at least 12,000 women received outpatient treatment at hospitals and in emergency rooms, and 3,100 women and children stayed at shelters for a total of 102,000 nights. Envall and Eriksson also reviewed estimates of the number of children who witnessed violence in the home.

³ Production loss is defined by Envall and Eriksson (2006) as the difference between what is produced and what could have been produced if the intimate partner violence had not existed.

The Tennessee Economic Council on Women (2006) focused on the financial impact of intimate partner violence on the state's economy. Using data from national and state sources, the Council estimated that intimate partner violence cost the state of Tennessee almost \$174 million in tangible costs annually. However, the Council concluded that, given the lack of solid numbers, this estimate was probably very conservative.

The Council presented findings on the impact of domestic violence on business, the health care system, the legal system, the social service systems, and the faith-based community. They included among the costs lost wages, lost productivity, sick leave, absenteeism, medical and present-day value of life costs,⁴ costs to the legal system, and costs to the social service system. The Council noted that the faith-based community provided support to intimate partner violence victims and their families, but did not attempt to put a dollar figure on the cost of these services.

Difficulty in calculating the cost of intimate partner violence has been a constant refrain among those who have attempted to quantify the loss that results from this particular crime. The costs have been viewed as direct and indirect, and as tangible and intangible. Many of the consequences are hidden, and some are not apparent until the initial victimization is long past. Consequently, measuring these costs and consequences is challenging. Still, it is important to attempt the exercise so that those who try to present strategies for improving the conditions of victims of violence might have some basis from which to argue for programs and strategies.

Estimating the Incidence of Intimate Partner Violence Cases in Dallas County

Before we could attempt to calculate the costs of violence against women in Dallas County, we needed to determine the incidence of intimate partner violence, both fatal and nonfatal. As noted above, TCFV (n.d.[a]) has compiled an annual list of the women killed by male intimate partners. In 2004, a total of 116 women in Texas were killed by intimate partners; 13

⁴ The present value of lifetime earnings (PVLE) measures the expected value of lost earnings victims would have otherwise contributed to society had they been able to live out their full life expectancies (NCIPC, 2003).

were in Dallas County. We have used this number to calculate the cost of fatal intimate partner violence.

Information gathered by The Family Place (n.d.) showed there were 15,496 family violence offenses reported by the Family Violence Unit of the Dallas Police Department in 2004. This provided information on incidents, but not on the number of victims. The Crime in Texas Annual Report (TDPS, n.d.) identified 182,087 incidents and 195,042 victims of family violence in the state of Texas in 2004.

If we assumed the ratio between intimate partner homicides in Dallas County and intimate partner homicides in Texas was the same as the ratio between the numbers of incidents/victims in Dallas County and the number of incidents/victims in Texas, we had an estimated total of 20,406 incidents and 21,858 victims, respectively. But because we "knew" there were 15,496 family violence offenses in the city of Dallas, we also knew we had overestimated by a factor of .759. Again, if we assumed the number of victims was also overestimated by the same factor, we could estimate 16,599 victims.

Our definition of family violence clearly includes a number of different categories of family relationships. If we want to restrict our discussion to marital-type relationships, we can use information from the family violence portion of the Crime in Texas Annual Report (TDPS, 2004) as our proxy. As indicated earlier, in 2004, 51% of all family violence offenses involved marital-type relationships, for an estimated 7,903 incidents with 8,465 victims. Most were minor assaults (73% or 5,769 incidents). Still, nearly 16% (1,264 incidents) were classified as aggravated assaults.

The report also stated most of the reported injuries were minor (53%), and that no injuries were reported in 43% of the family violence reports. Major injuries, which included lacerations, broken bones, unconsciousness, and internal injuries, were reported in 4% of the cases. Using these proportions, we estimated 3,398 incidents with no reported injuries, 4,189 incidents with minor injuries, and 316 incidents with major injuries.

We have used these figures to help us understand the magnitude of the losses associated with intimate partner violence in Dallas County. It is important to note that our estimates were based on secondary sources and not on actual detailed data about specific cases in Dallas County.

Costs in Dallas County

Fatal Intimate Partner Violence

As indicated above, during 2004, 13 fatal homicides were attributed to intimate partner violence in Dallas County. In the CDC study (NCIPC, 2003), the researchers used the present value of lifetime earnings (PVLE) to measure the expected value of lost earnings of homicide victims (p.31). Drach (2005) used the CDC study as a guide, but adjusted the PVLE number for inflation. We have used a similar approach. With the adjustment, the PVLE for fatal homicide victims in 2004 in Dallas County was an estimated \$9,939,692—an average of more than \$764,592 per fatality (see Table 1).⁵

Table 1.

Calculating Age Group-Specific Present Value of Lifetime Earnings Estimates (PVLEs) Among Adult Female Victims of Intimate Partner Homicide by Age Group, United States, 2004

Age Group	# Homicides	Mean PVLE	Total PVLE
18–19 [19]	1	\$1,023,329	\$1,023,329
20–24 [21]	1	\$1,045,015	\$1,045,015
25–29 [28, 29]	2	\$1,008,389	\$2,016,778
30–34 [32, 34 (2)]	3	\$929,307	\$2,787,921
35–39 [35]	1	\$822,423	\$822,423
40–44 [43]	1	\$695,470	\$695,470
45–49 [45, 49]	2	\$555,936	\$1,111,872
55–59 [59]	1	\$280,915	\$280,915
65–69 [68]	1	\$155,969	\$155,969
Overall Total	13	N/A	\$9,939,692

Note. The mean PVLE for each age group was multiplied by the number of intimate partner homicides in that age group to arrive at the total PVLE for that group. Then, all age group-specific PVLEs were added to arrive at the overall total PVLE.

⁵ The information on the number of women killed by their intimate partners in Dallas County was derived from the annual report presented by the TCFV (n.d.[a]). This source does not include information on social status and race/ethnicity, nor does it provide consistent information on the employment status or occupations of the victims. Of course, access to this information would allow us to present a more accurate estimate. We have, therefore, adopted the approach used by the CDC (NCIPC, 2003) and the more recent Drach (2005) study.

For each of the 13 fatal homicides, at least one offender was charged, convicted, and sentenced. The Texas Penal Code (Tex. Penal Code § 19.01, 2007) denotes four categories of criminal homicide: murder, capital murder, manslaughter, and criminally negligent homicide. Capital murder is a capital felony that results in a sentence of death or life imprisonment; murder is either a first degree felony (a minimum of 5 years to a maximum of 99 years or life imprisonment, and a fine not to exceed \$10,000) or a second degree felony (a minimum of 2 years to a maximum of 20 years, and a fine not to exceed \$10,000); manslaughter is a second degree felony; and criminally negligent homicide is a state jail felony (a minimum of 6 months to a maximum of 2 years [Tex. Penal Code § 19.01, 2007]).

We assumed these 13 offenders (at least) convicted and sentenced for criminal homicides in 2004 were housed in the Texas State Prison system. Stephan (2004) reported that the annual operating cost per state inmate in Texas for fiscal year 2001 was \$13,808. Fabelo (2003) reported that in 2002, the average cost per day for inmates on death row was \$61.58. For inmates in the general population, the cost was \$42.46, and for those in administrative segregation, it was \$61.63. (This was an increase of 4.3% over the average cost in 2001.) We assumed these 13 inmates were in the general population, and projected costs from 2002 to 2004. Thus, assuming the same annual increase of 4.3% per year, for 2004 we estimated an average cost of \$46.19 per day—or an annual cost per inmate of \$16,861. This would be an estimated annual cost of \$219,190 for the 13 inmates.

Additionally, a look at the report on death row inmates presented by the Texas Department of Criminal Justice (n.d.) revealed there were 379 inmates on death row in 2004. None of the offenders in the cases of intimate partner homicide in 2004 were on death row; however, there were two offenders from such incidents that occurred prior to 2004. Because the costs for maintaining the offenders in these earlier cases of intimate partner homicide are included in the yearly correctional budget, including these costs in attempting to quantify the costs of intimate partner violence in the state seems appropriate. As of 2004, one offender had been on death row for 5 years and the other for 1 year. Again, we used the rationale presented above (an annual increase of 4.3% in costs) to project costs from 2002 to 2004. We estimated an average cost of \$66.99 per day for inmates on death row, or an annual cost per inmate of \$24,451. This would be an estimated \$146,706 for the combined 6 years the two offenders had served on death row as of 2004. It is important to keep in mind that this estimate was based on a constant increase of 4.3% per year in

the average cost per day for inmates on death row. It is unlikely that such costs would not increase over time; consequently, this estimate should be viewed as very conservative. Incidentally, a review of those executed in Texas prior to 2004 revealed that although a number of cases originated in Dallas County, none involved intimate partner homicide (Texas Department of Criminal Justice, 2005).

Finally, the Texas Council on Family Violence (n.d.[b]) has tracked the stories of women killed by intimate partners and has posted this information on its website since 1998. From 1999 to the present, information on some of the situational aspects of these homicides has been provided. From 1999 to 2003, 61 women were killed by their intimate partners in Dallas County, and 33 of these women were killed in Dallas proper. The reports indicated 9 offenders were sentenced to between 15 years and life imprisonment. Additionally, 1 offender was sentenced to life in a state hospital, 2 were sentenced to death, 7 committed suicide, and sentences for the 14 remaining offenders were not included in the descriptions. We assumed the 9 offenders sentenced to a term of incarceration were still incarcerated in 2004, and used the figure of \$16,861, derived from the earlier studies, as our annual cost per inmate. This added a total of \$151,749 to the ongoing cost of fatal intimate partner homicide. Once again, this is a very conservative figure. We have not included the cost of maintaining the offender in a state hospital, nor costs related to the remaining 14 offenders, because it was not available to the Texas Council on Family Violence (n.d.[b]).

In summary, our estimate of the costs of fatal intimate partner homicide was based on the expected value of lost earnings of homicide victims, the annual operating costs to the state for each offender convicted of intimate partner homicide in 2004, the annual operating costs to the state for each offender convicted of intimate partner homicide from 1999 to 2003, and the ongoing costs of maintaining those sentenced to death.

Nonfatal Intimate Partner Violence

The Family Violence Unit of the Dallas Police Department reported 15,496 family violence offenses in 2004 (The Family Place, 2005). Earlier, we estimated that this corresponds to about 16,599 victims. Our first task was to determine what percentage of these offenses involved intimate partner assaults. If we used the proportions from the state as indicative of projections

for Dallas County, we could estimate 51%, or 8,465, victims of intimate partner violence.⁶ Given that the average number of victimizations each for cases of physical assault was estimated at 1.6, we derived a total of 13,544 victimizations using our estimation method.

Our second task was to determine what percentage of these offenses involved injuries to the victims. Again, if we used the state figures as our reference for Dallas County, we could estimate 316 offenses involving major injuries and 4,189 involving minor injuries. We have used these numbers to estimate the cost of medical care.

Cost of Medical Care for Victims

A number of researchers have attempted to estimate medical costs associated with family violence (NCIPC, 2003; Drach, 2005; Envall & Eriksson, 2006). Tjaden and Thoennes (2000), in one of the earlier studies of the health-related costs of family violence, included ambulance/paramedic expenses, medical care, dental care, physician care, hospital care, physical therapy, emergency room care, outpatient care, and overnight care. Drach (2005) and Envall and Eriksson (2006) used these same indicators. CDC (NCIPC, 2003) added mental health care to the list. The Texas Violence Against Women Prevention Strategic Plan (2004) stated, "health care costs account for more than two-thirds of total cost estimates" (p.15).

Drach (2005) used the National Violence Against Women Study's (NVAWS) Unit Costs for Service Data to estimate these costs in Oregon. In Dallas County, by our estimates, there were an estimated 13,544 intimate partner physical assaults. Using the NVAWS estimates, we were able to estimate 6,731 assaults resulting in injuries and 1,252 requiring medical care (see Table 2). Table 3 presents the unit cost per medical service and the cost per physical assault. The mean medical costs per intimate partner violence physical assault was \$299.73. The total expenditure for medical costs was an estimated \$375,262. We must caution that this estimate was based on national figures, which may not be in line with actual costs for medical services in Dallas County.

⁶ Of course, we do not know if Dallas County figures are proportional to state figures. Future research would be enhanced and estimates would be more reliable if actual data for Dallas County were available.

Table 2

Estimates of Victimization Outcomes and Medical Care Service Use by Victims of Nonfatal Intimate Partner Physical Assault, Dallas County, 2004

Victimization Outcomes & Medical Services Used	Physical Assault
Victimizations	13,544
Victimization Resulting In Injury	6,731
Victimization Resulting In Some Type of Medical Care	1,252
Victimization Resulting in:	
Physician care	749
Dental care	29
Physical Therapy	21
Victimization Resulting In Hospital Care	
Emergency Department (ED)	650
Outpatient	267
Inpatient	153

Table 3

Estimated Annual Medical Care Service Use Costs for Nonfatal Intimate Partner Physical Assault, Dallas County, 2004

Medical Services Received	# Physical Assaults/ Services Received	Average # Uses Per Assault	Total Uses	Unit Cost per Service	Physical Assaults (All)	Physical Assaults Req'g Med. Care
ED Visits	650	1.9	1,235	\$431.55	\$39.35	\$819.95
Outpatient Visits	267	3.1	828	\$432.62	\$26.45	\$1,341.60
Hospital Overnights	153	5.7	872	\$3,136.34	\$201.93	\$17,875.09
Physician Visits	749	3.2	2,397	\$139.66	\$24.72	\$446.95
Dental Visits	29	4.4	128	\$384.47	\$3.63	\$1,696.97
Physical Therapy Visits	21	21.1	443	\$111.69	\$3.65	\$2,356.13

Cost of Mental Health Care for Victims

Victims of intimate partner physical assaults have reported a number of mental health problems, including post-traumatic stress, depression, anxiety, phobias/panic disorders, eating disorders, sexual dysfunction, low self-esteem, and substance abuse (TDH, 2004). Similarly to the Oregon study (Drach 2005), we used the NVAWS estimates of the proportion of assaults resulting in the use of mental health services (26.4%) and the estimates of the number of visits (12.9). The unit cost was calculated at \$98.15 per assault. If the estimated 3,576 victimizations resulted in 46,130 mental health care visits at \$98.15 per assault, we could estimate a total cost of \$4,527,660 for mental health care related to intimate partner violence (see Table 4). Of course, we do not know if victims of intimate partner violence in Dallas County are more or less likely to use mental health care services than those in Oregon or the nation. This highlights the need for more detailed and specific information on these victims.

Table 4

Estimates of Mental Health Care Service Use by Victims of Intimate Partner Physical Assault, Dallas County, 2004

Total Number Of Victimization	13,544
Percent of Victimization Resulting in MH Care	26.4%
Estimated Number of Victimization Resulting in MH Care	3,576
Average Number of MH Care Visits	12.9
Total number of Mental Health Care Visits	46,130

Lost Productivity for Intimate Partner Violence

Drach (2005) reported that in Oregon, 1 in 5 victims of intimate partner sexual or physical assault lost time from paid work (on average, just over 8 days), and that 1 in 10 lost time from household chores. The CDC's National Violence Against Women Survey (as cited in Tennessee Economic Council on Women, 2006) reported that, of adult female intimate partner violence victims, those who were physically assaulted lost an average of 7.2 days of paid work.

Given the number of victims in Dallas County (see Table 5), this would equal a loss of more than 9,958 days of paid work. The 2004 American Community Survey (U.S. Census Bureau, n.d.) reported that the median, full-time, year-round female worker in Texas earned \$34,640, or \$139.68 per day (if an average 248 days were worked per full-time year). Thus, we estimated the cost of loss of paid work due to intimate partner violence in Dallas County in 2004 to be \$1,390,933.

In the case of household chores, if 1 in 10 victims (or 790 victims in Dallas County) lost 8 days, we could estimate 6,320 days lost. Using the 2004 minimum hourly wage of \$5.15 per hour, we estimated a daily wage of \$41.20. This results in an estimated loss of time from household chores due to inmate family violence of \$260,384.

Table 5.

Estimated Cost of Intimate Partner Physical Assaults to Dallas Business, 2004

	Total Reported Victimization in Dallas in 2004	Percent of Victims Who Missed Paid Work	Average Days of Work Lost Per Victimization	Days Lost of Paid Work in Dallas 2004
Physical Assault	7,903	17.5%	7.2	9,958

Cost of Maintaining Family Violence Unit for Victims

The complexity of attempting to quantify the economic costs associated with intimate partner violence for the Dallas Police Department is a daunting task. One incident of intimate partner violence can have a powerful ripple effect on the community, social services, medical, and criminal justice agencies in Dallas County. To better respond to the increasing difficulties in dealing with intimate partner violence reports, the Dallas Police Department established the Family Violence Unit, which specifically handles all intimate partner and domestic violence reports.⁷

⁷ The Family Violence Unit of the Dallas Police Department handles all family violence cases. Our earlier estimate based on the Crime in Texas Annual Report (TDPS, 2004) was that 51% of the family violence incidents in Texas involved intimate partner violence. We have applied this number to our estimated cost of intimate partner violence to law enforcement.

In attempting to quantify the costs associated with domestic violence to law enforcement agencies, we examined the two primary divisions within the Dallas Police Department responsible for domestic violence—the Family Violence Unit and the patrol units.

The Family Violence Unit of the Dallas Police Department is responsible for follow-up investigations. An employee at the Dallas Police Department (Melba Turbyfill, sergeant, DPD, personal communications July, 2007) reported that the Family Violence Unit operated on a budget of approximately \$800,000 to \$1.1 million in 2004. The Unit consisted of 12 investigators and support staff. The cost to operate the Unit was derived from salaries of the officers and support staff, equipment, and supplies. The exact salaries of the officers and support staff were not available; thus, we could only offer an approximation of the total cost for expenditures.

Because the primary purpose of the Unit is investigating domestic violence complaints, all expenditures were directly related to the cost of domestic violence to the Department. However, as indicated earlier, it was estimated that 51% of the family violence cases involved intimate partner violence. The midpoint of the approximate budget for the Unit is \$950,000; 51% of this total is \$484,500. We used this as our conservative estimate of the cost to the Unit for investigating intimate partner violence cases.

We were, however, able to calculate an estimated cost for the overall Department based on the labor cost of patrol officers. Because initial calls for service for domestic violence cases are typically handled by patrol officers, we found this to be a valuable estimate in terms of calculating a discernable cost to the Dallas Police Department. This estimated cost was determined by multiplying the length of the call by the average hourly wage of a patrol officer. In 2004, the Department responded to approximately 16,000 calls for service for domestic violence. The Department reported that the average length for a domestic violence call was approximately 2 hours, and the average wage for a patrol officer was \$17.00 per hour. Direct expenditures due to these calls, thus, totaled \$544,000 for the patrol unit. While not exact, these costs provide a picture of the economic price tag attached to the Dallas Police Department's efforts in handling domestic violence.

Cost of Maintaining Other Criminal Justice Agencies

Besides the Family Violence Unit of the Dallas Police Department, the city has a Domestic Violence Unit in the City Attorney's Office and two domestic violence courts. The Texas legislature authorized a domestic violence court in 1999, and by 2002 there were two such courts (Dallas County, 2002). They are authorized to handle cases involving spousal, child, or elder abuse. These courts are funded under the Violence Against Women Act (1993). In 2003, this funding amounted to a grant award of \$242,319 with a county match of \$172,418, for a total of \$414,737. Also included in the budget were monies for a Protective Order Prosecutor (\$133,333) and a Protective Order Case Manager (\$99,999). This added an additional \$648,069 to the cost of maintaining other criminal justice agencies. Applying our 51% factor, we estimated \$330,515 for other criminal justice agencies. It is important to note that these are figures derived from the 2003 budget (the 2004 budget was unavailable for consultation). Furthermore, there were some other awards for a full-time felony prosecutor, a misdemeanor investigator, and a misdemeanor clerk, who were included under the Collaborative Domestic Violence Project A (Dallas County, 2002).

Cost of Maintaining Shelters and Service Agencies for Victims and Children

In Dallas County, there are a number of agencies and shelters that provide services for victims of intimate partner violence and the many collateral consequences (e.g., social costs to children). This analysis is based on children's services and domestic violence agencies that reported financial information to the Internal Revenue Service (IRS) in 2004. Data generated by the National Center for Charitable Statistics (NCCS, 2007a) were used for the purpose of this analysis. The data are comprised of tax information from the cumulative IRS Business Management File (BMF), which is derived from the IRS 990 and 990 EZ forms. Specifically, the NCCS data used in this analysis came from the Core 2004 Public Charities data (Core 2004 PC), which combines information from the BMF and financial variables from the IRS's Return Transaction File (RTF) once cleaned by the NCCS. The Core 2004 PC consists of 113 variables for approximately 300,000 organizations. The Core Public Charity data also includes additional files on private foundations that fall under the 501(c)(3) subsection.

Our analysis consists of three descriptive variables: organization name, total revenues, and total expenses. The names of the organizations are the legal names reported to the IRS. Total revenue is calculated based on the following formula: gross income + contribution + dues + rental expense – direct expense. Total expenses are obtained from line 17 of the IRS 990 and 990 EZ forms. We first considered the cost of maintaining the domestic violence centers that provide services directly to the female victims. We then focused on the cost associated with maintaining the agencies that provide services to children whose lives have been disrupted by domestic violence (i.e., collateral cost). To begin the discussion, we provide a description of the types of agencies used in this analysis.

There are 18 Dallas County-based organizations included in our analysis. The names of these organizations were selected based on their National Taxonomy of Exempt Entities (NTEE) codes. For example:

1. P30, Children & Youth Services: “Organizations that provide a wide variety of informational, social and supportive services for child and youth including runaways and other troubled youth” (NCCS, 2007[b]);
2. P40, Family Services: “Organizations that provide a wide variety of social services that are designed to support healthy family development, improve the family’s ability to resolve problems and prevent the need for unnecessary placement of children in settings outside the home” (NCCS, 2007[b]); and
3. P43, Family Violence Shelters: “Organizations that provide temporary shelter for women who have experienced domestic violence and for their children” (NCCS, 2007[b]).

Of the 18 organizations selected for inclusion in the analysis, 12 are children and youth services agencies and 6 are family/family violence agencies (see Tables 6 and 7). While several of the children and youth services agencies do not focus solely on domestic violence, many of these agencies provide support services for the associative events that lead to the disruption of familial systems (e.g., delinquency, foster care, abuse and neglect, and so on). According to the literature, there is a strong relationship between domestic violence and a number of behavioral problems that lead to fractured families (Herrera & McCloskey, 2001; Jouriles, McDonald, Norwood, & Ezell, 2001; Kitzmann, Gaylord, Holt, & Kenny, 2003; Spilsbury, Belliston, Drotar, Drinkard, Kretschmar, Creeden, et al., 2007; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). Despite the difficulty in

identifying which agencies provide exclusive services to children whose lives have been disrupted by domestic violence, we have included these agencies in our analysis because we feel it will give a general idea of the cost of maintaining agencies both directly and indirectly associated with domestic violence against women.

Table 6*Cost of Maintaining Intimate Partner Violence Agencies, Dallas County 2004*

Name of organization	Expenses	Revenue
Lutheran Counseling Services Inc	\$133,234	\$134,322
Children And Family Institute Incorporated	\$171,635	\$164,272
Dallas For Children	\$131,925	\$87,498
In The City For Good	\$85,613	\$105,317
Dallas Association For Parent Education Inc	\$86,711	\$84,717
Family Place Inc	\$8,922,136	\$9,193,263
Total	\$9,531,254	\$9,769,389
Average	\$1,588,542	\$1,628,232

Table 7.*Cost of Maintaining Children & Youth Services Agencies, Dallas County, 2004*

Name of organization	Expenses	Revenue
Youth Services Council of the Richardson ISD Community	\$699,922	\$734,714
Roy F Grindol TR Two UW	\$25,896	\$3,165
Christian Services of The Southwest	\$951,907	\$773,008
Neighborhood Youth Services of Richardson Inc	\$339,910	\$368,491
Dallas Challenge Inc	\$1,917,144	\$2,015,740
Dallas Children's Advocacy Center	\$2,502,788	\$2,669,349
Child Protective Services Community Partners Inc.	\$767,799	\$730,148
Mesquite Youth Services Inc	\$33,363	\$30,119
Youth First Texas	\$47,487	\$71,602
Christian Services of the Southwest Foundation Inc	\$174	\$139,143
Heart House	\$194,346	\$238,291
Operation Oasis	\$193,561	\$168,984
Total	\$7,480,736	\$7,773,770
Average	\$623,395	\$647,814

***Cost of Maintaining Intimate Partner Violence Agencies
in Dallas County***

As illustrated by Table 6, for 2004, the total revenues for agencies that provided services for family/domestic violence in Dallas County were \$9,769,389, average total revenues were \$1,628,232, the total expenses were \$9,531,254, and average total expenditures were \$1,588,542. All things considered, these figures indicate that three of the six agencies involved with implementing family/domestic violence services in Dallas County experienced deficit spending.

Because The Family Place is one of the largest shelters in Dallas County, we have limited our cost estimate to this one agency. It has a host of programs, including a 24-hour hotline, emergency services for battered women, short-term housing for women and children, as well as counseling for male batterers and incest recovery services. Its total revenues for all programs in 2004 were \$9,193,263. We cannot accurately derive the proportion of the budget that addressed only the concerns of victims of intimate partner violence. Still, it does seem “fair” to suggest that given the prevalence of intimate partner violence, about half of that total (\$4,596,632) may have been used to address this category of victims and ancillary concerns.

**Collateral Consequences: Children’s Exposure to
Violence against Women**

We reported earlier in the paper that there were eight children left parentless and homeless as a result of the 13 cases of intimate partner homicide in Dallas County in 2004. We also estimated 13,544 victimizations and 16,599 victims. The average household in Dallas County had 2.66 members, and the average family size was 3.5. (U.S. Census, n.d.). Therefore, if we estimated that each victim of intimate partner violence has 1.5 children, we could deduce that an estimated 24,899 children experienced violence in their homes in 2004.

When measuring the cost of violence against women, it is important to factor in the impact it has on children—they are often the forgotten casualties of domestic violence. This section of our paper discusses the impact of violence against women on children, as well as the associated costs. There are both direct and indirect costs associated with a child whose mother, or mother figure, is a victim of domestic violence.

Direct Costs Associated with Injuries of Mothers

Injuries (either physical and psychological, or fatal and nonfatal) to women are an important dimension of intimate partner violence. The direct costs associated with violence against women and its impact on children are related to the injury and/or death of their mothers. Findings from the National Violence Against Women Survey revealed that 39% of women who reported being victims of domestic abuse also reported having sustained injuries, and 30% reported needing medical attention (Tjaden & Thoennes, 2000). These injuries are often severe, and often require hospitalization. When women with children suffer from serious injuries, they are often incapable of caring for their children, and this responsibility is taken over by friends or family members.

In 2000, more than 1,200 women were victims of intimate partner homicide (Rennison 2003); many of these women experienced fatal injuries and left children behind, resulting in their children needing long-term parental guidance and subsequently leading to kinship or foster care costs. It is difficult to assign a direct figure to the cost of either short- or long-term kinship or foster care; however, if traditional figures are used to calculate the cost of childcare, that figure would potentially range in the hundreds of thousands of dollars.

Indirect Costs of Risk and Vulnerabilities for Children

The indirect costs associated with children who grow up in households where domestic violence is common are related to the degree of their exposure to violence against their mothers. In a one-year study by Fantuzzo and Fusco (2007), conducted in a Northeast municipality in the United States, children were present in more than 50% of domestic violence cases reported to the police. It is estimated that millions of children are exposed to violence in the home annually (Holden, 1998).

Children's exposure to violence is a complex concept that can take place in a variety of fashions, including (a) directly observing and/or hearing the abuse, (b) observing the immediate physical effects of the abuse (i.e., broken bones, bruises), or (c) being told about the abuse (Holden, 2003). Fantuzzo and Fusco (2007) found that in households where children were present, 92% of the children were exposed to their mother's physical abuse. In more than 80% of these cases, children were

directly exposed to violence (hearing and/or seeing the violence). Younger children (under age 6) were most at-risk for exposure (Buka & Lipsitt, 1994; Fantuzzo & Fusco, 2007).

Children often develop health, emotional, psychological, behavioral, and developmental problems when they are exposed to violence against women at a young age (Kitzmann et al., 2003; Wolfe et al., 2003; Spilsbury et al., 2007). The manifestation of these pathologies has often been different for boys and girls. There is mixed research regarding the impact of exposure to violence on young boys and girls—some have reported that boys are more apt to externalize trauma symptoms (Yates, Dodd, Sroufe, & Egeland, 2003). While girls are more likely to internalize trauma symptoms, such as aggression, phobia, insomnia, low self-esteem, and depression (Jouriles et al., 1996), other studies have indicated that both genders externalize behavioral problems (Spilsbury et al., 2007).

Costs of Exposure: Potential Future Cost of Collateral Damage Against Children

Internalizing and externalizing trauma during childhood both have a number of potential costs, including an increased risk for juvenile delinquency, and for developing a distorted view of appropriate patterns of interactions in personal relationships. First, we will address the impact of childhood exposure to violence against women on future interpersonal relationships. The cycle of violence theory informs us that children who witness violence in the home have an increased chance of becoming victims of domestic abuse themselves, or of becoming perpetrators of domestic violence when they are adults. Research has found that a fairly large percentage of women who have been victims of intimate partner violence grew up in households where their mothers or mother figures were in abusive relationships. Studies have also shown that a sizable portion of male perpetrators of violence against women have reported growing up in violent households. Hence, there is an increased risk for children exposed to intimate partner violence to become either future perpetrators of intimate partner violence or victims of such violence as adults (Widom, 1992).

The increased risk of both becoming a future victim of violence against women and becoming an abuser generates potential future cost. These costs include (a) medical care, (b) lost pay due to injuries, and (c) criminal processing system expenses.

The second most common impact of children's exposure to violence is the manifestation of behavioral problems and engagement in juvenile delinquency activities (Herrera & McCloskey, 2001; Jouriles et al., 2001). Children who have been exposed to family violence are at an increased risk for engaging in acts of delinquency (Loeber & Stouthamer-Loeber, 1986). There are a host of costs associated with these offending patterns, such as juvenile court costs, juvenile detention costs, and juvenile delinquency divergent program costs.

Ancillary Costs for Children in Violent Households

In addition to the behavioral problems generated by emotional and psychological distress, young people who live in households where their mothers are victims of domestic abuse are at increased risk for being abused themselves by the perpetrator of the abuse (Straus & Gelles, 1990). The co-occurrence of violence in households is not unusual. McCloskey (2001) reported that children who live in households where women are battered are 3 times more likely to suffer abuse than those who do not live in such households. According to Edleson (1999) most studies have cited a rate of 30 to 60% co-occurrence. The costs associated with child abuse include (a) hospital emergency care, (b) missed time in school, and (c) emotional duress.

Cost of Maintaining Child Care Agencies in Dallas County

Table 7 shows the total 2004 revenue and expenditures for agencies that provided services for children whose lives were impacted by domestic violence in Dallas County. The total revenue for the agencies was \$7,773,770, the average total revenue was \$647,814, the total expenditures were \$7,480,736, and the average total expenditures were \$623,395. As with the intimate partner violence agencies, we find a similar pattern of deficit spending for the agencies that provide services to children whose lives have been disrupted by domestic violence. Also, it is important to note that we based this on the fact that five of the agencies included in this analysis experienced deficit spending. We included this table and the discussion to further demonstrate the far-reaching impact of intimate partner violence and the difficulty of providing accurate cost estimates.

Table 7.*Cost of Maintaining Children & Youth Services Agencies, Dallas County, 2004*

Name of organization	Total expenses	Total revenue
Youth Services Council of the Richardson ISD Community	\$699,922	\$734,714
Roy F Grindol TR Two UW	\$25,896	\$3,165
Christian Services of The Southwest	\$951,907	\$773,008
Neighborhood Youth Services of Richardson Inc	\$339,910	\$368,491
Dallas Challenge Inc	\$1,917,144	\$2,015,740
Dallas Children's Advocacy Center	\$2,502,788	\$2,669,349
Child Protective Services Community Partners Inc.	\$767,799	\$730,148
Mesquite Youth Services Inc	\$33,363	\$30,119
Youth First Texas	\$47,487	\$71,602
Christian Services of the Southwest Foundation Inc	\$174	\$139,143
Heart House	\$194,346	\$238,291
Operation Oasis	\$193,561	\$168,984
Total	\$7,480,736	\$7,773,770
Average	\$623,395	\$647,814

Discussion

The Texas Council on Family Violence (TCFV, n.d.[c]) reported 120 women were killed by their intimate partners in Texas in 2006. Dallas County reported 15 of these cases, and 5 were in the city of Dallas. On February 19, 2006, in Dallas, Eneyda Gutierrez was shot to death in her home by her husband, Javier Gutierrez, 32, in an apparent murder-suicide. According to police, Gutierrez's 7-year-old daughter told a neighbor there was something wrong with her mother. The neighbor called the police, who discovered the two bodies. Police said the couple had a history of domestic problems, and Gutierrez had left her husband a few times before. Gutierrez is survived by her two children (TCFV, n.d.[b]).

As indicated earlier, the Texas Council on Family Violence (TCFV, n.d.[b]) has been tracking these cases since 1998. The literature has told us that intimate partner violence usually involves a repeated history of abuse with calls and

intervention on the part of law enforcement, that children often witness abuse, and that many times, these cases culminate in serious injury or death. Still, the case of Eneyda Gutierrez allows us to see beyond the statistics.

In this paper we have attempted to quantify something that seems beyond objective measure given the scarcity of data. By our estimates, in 2004, intimate partner physical violence cost Dallas County approximately \$22,815,471 (see Table 8). This includes at least \$10,305,585 in present value of life costs and the costs of maintaining offenders convicted of fatal intimate partner homicide, more than \$4,902,922 in medical and mental health costs, \$1,651,317 in lost wages and productivity, more than \$1,359,015 in criminal justice costs, and more than \$4,596,632 in social service costs. We have discussed the impact intimate partner violence has on children who are left behind, or who remain in homes that are the scenes of constant disruptions. Seeing, hearing, and feeling the wrath of an abusive partner has long-range, life-altering consequences. Yet, we cannot measure the emotional pain and suffering experienced by these children.

Table 8

Estimated Cost of Intimate Partner Physical Assault, Dallas County, 2004

Fatal Intimate Partner Homicide (Total for Category)	\$10,305,585
Present value of life	\$9,939,692
Incarceration	\$219,190
Death Row	\$146,706
Nonfatal IPV Health Costs (Total for Category)	\$4,902,922
Medical Health	\$375,262
Mental Health	\$4,527,660
Nonfatal IPV Productivity Costs (Total for Category)	\$1,651,317
Paid Work	\$1,390,933
Household Chores	\$260,384
Nonfatal IPV Criminal System (Total for Category)	\$1,359,015
Patrol Unit	\$544,000
Domestic Violence Unit	\$484,500
Other Criminal Justice Agencies	\$330,515
Nonfatal IPV Social Services (Total for Category)	\$4,596,632
Domestic Violence Services	\$4,596,632
Total for All Categories	\$22,815,471

Our aim has been to continue the earlier efforts of others, such as the Centers for Disease Control and Prevention (CDC, 2003), the Tennessee Economic Council on Women (2006), and the Oregon Department of Human Services (Drach, 2005). Our hope is that if policy makers, programmers, and citizens recognize the magnitude of loss resulting from intimate partner violence, perhaps we will be moved to aggressively pursue efforts to prevent and reduce this type of violence.

We have attached a dollar figure to intimate partner violence in Dallas County. It is important to recognize that this figure is, most likely, very conservative. We did not have accurate data on the number of women in Dallas County who reported intimate partner violence or the number who received medical or mental health treatment. We had to rely on cost estimates from other jurisdictions. Access to these sources of data would greatly improve the estimate of the impact of this crime on victims, families, the community, and on Dallas County as a whole. The “cost,” in economic terms, provides a baseline, which then allows greater understanding of the view that intimate partner violence, unfortunately, “costs” so much more in terms of quality of life.

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