Figure 2.2b. SURVEY SAMPLING: Introductory Case Study 1

In statistics teaching, articles dealing with a variety of topics from the media are a convenient way of providing *context*, making it easier to appreciate the relevant *statistical* issue(s). After class discussion of an article, you may wish to check your progress in the course by using your newly-acquired statistical knowledge to make your *own* assessment of the *subject matter* of the article that provides the context.

EM9331: The Globe and Mail, September 9, 1993, page A23

RESEARCH / *A study of sexual and physical abuse of women has met with resistance from people who seem determined not to believe how widespread the problem is. They should consider the careful, scientifically valid way the study was conducted*

The extent of sexual violence in women's lives

BY LORI HASKELL
and MELANIE RANDALL

SINCE the July 29 release of the final report of the Canadian Panel on Violence Against Women, much attention has been focused on the subject, with some indignation and disbelief expressed about the prevalence rates of sexual violence published in the report.

These statistical findings come from an independent study the two of us directed, identified in the panel's report as the Women's Safety Project. The process and content of the panel's work aside, we want to address some of the misapprehensions about our research findings and to explain how the study was carried out.

Our study confirms that the presence of sexual and physical abuse in women's lives is disturbingly high – shocking, perhaps, for those not aware of the decades of research and scholarship that informed our study. Over half of the 420 female respondents in our survey (51 per cent) reported experiencing a rape or attempted rape, more than one-quarter (27 per cent) reported physical assault in a relationship with a male partner, and more than one-third (43 per cent) reported a sexual-abuse experience in childhood.

Given these high rates of violence, there have been some predictable doubts expressed about the validity and credibility of the research itself, by those who seem determined to disprove just how extensive the problem really is. While informed questions about the methods and applicability of research studies are welcome as part of respectful public discussion of social issues, critiques which are nothing more than uninformed diatribes are not.

In terms of the politics of violence against women, of greater significance is the explicit denial and minimizing that pervades such opinions and commentaries. For example, in a recent conversation, a male editor at a leading newspaper challenged the research findings simply on the basis that he found them to be "counter-intuitive" to men. Asked to elaborate, he explained that he and most of the men in his circles simply didn't know any women who had been raped or physically assaulted. The irony of challenging scientifically valid research on the basis of something as flimsy as "men's intuition" apparently escaped him.

In professional evaluations of research methodologies by leading North American experts, the approach taken in our study has been recognized for a number of strengths: the random sample, the in-depth training of the interviewers, the face-to-face interviews, the confidentiality and anonymity of respondents, and the design of the questionnaire.

... other research ... based on non-random samples of specifically selected populations of women, ... Statistics from that type of research cannot be generalized to the larger population because of the biased sampling methods.

In addition to pre-testing, the questionnaire itself was subjected to professional scrutiny, including evaluation by some of the leading North American experts on sexual abuse, such as social psychologist Diana Russell, recently retired from Mills College in Berkeley; clinical psychologist Jon Briere of the University of Southern California School of Medicine; psychiatrist Judith Herman of Harvard Medical School, and San Francisco educator Sandra Butler.

Our survey's results were generated from a randomly-selected group of female respondents, from various age groups, income levels and ethnic backgrounds. The sample, designed by the The Institute for Social Research at York University, consisted of a list of addresses randomly selected by computer from a list of all the addresses in the City of Toronto. This distinguishes our study from the vast majority of other research on the topic, which is based on non-random samples of specifically selected populations of women, such as women using shelters or reporting to the police. Statistics from that type of research cannot be generalized to the larger population because of the biased sampling methods.

Since respondents in our survey were randomly selected, and nothing was known about any of the women in advance of their participation, the results of our study can be applied beyond the 420 women interviewed. They suggest something about the extent of violence in women's lives more generally.

What's more, only 19 per cent of the eligible women contacted by an interviewer in our survey declined the interview. In another 5 per cent of the households where an interviewer made contact, another household member, including husbands, said that no one at that address was interested in the study.

Of note, and contrary to the assumption that women who agreed to be interviewed were those who had experiences of abuse that they wanted to talk about, some of the women who declined to participate indicated that it was precisely because they were dealing with painful memories or current abuse experiences that they did not feel able to discuss them.

THE interviewers for our study were highly skilled women who underwent at least 60 hours of rigorous training on survey-research methods, the structure and administration of the questionnaire, and sensitization to the issues involved in interviewing women on this painful and stigmatized subject. Women interviewed for the survey were asked standardized questions. The length of the interviews varied according to

(*continued overleaf*)

whether a woman reported any abuse experiences and the number of those experiences she disclosed. The average length of the interviews was two hours but in some of the more extreme cases, where women's lives had been ravaged by repeated experiences of childhood sexual abuse and further vio- lence from male partners later in life, they required more time.

One of the methodological features that accounts for the high rates of disclosure in our study is that women were not simply asked whether they had been raped; the questions defined what constitutes a rape. For example, to ascertain rates of sexual assault at the level of rape and attempted rape, women were asked whether they had experienced forced or attempted forced sexual intercourse against their will. This is a definition of sexual assault far more stringent than that currently recognized in Canadian law.

Many of the women indicated they had never disclosed their experiences of abuse prior to the interview, except in some cases to a close friend at the time of the event. This is testimony to the silencing and denial that still surrounds sexual violence and to the stigmatizing of women who disclose experiencing it. Indeed, it is the supposed intimacy and safety of the relationships in which the vast majority of this abuse of women takes place – perpetrated by fathers, brothers, uncles, boy-friends and husbands – that provides the greatest resistance to acknowledging it.

The prevalence rates from our research indicate the devastating "normalcy" and frequency of violence and abuse in the life experiences of a diverse sample of urban Canadian women. They challenge the myth that it is only a small or distinct group of women who have known the violation and terror of a sexual or physical assault.

Our study contributes to several decades of researchers' and community activists' work to raise public awareness of the dimensions of sexual violence in women's lives. It is imperative that we focus our collective energies on developing social, educational and economic strategies to prevent and eradicate it.

Lori Haskell is a doctoral candidate in applied psychology at the Ontario Institute for Studies in Education, Toronto. Melanie Randall is a member of the professional research staff at the Centre for Women's Studies in Education, OISE.

1 What does the article EM9331 reprinted overleaf on page 2.11 and above indicate (explicitly or implicitly) about the sample survey with regard to:

- the target population;
- the study population;
- the frame;
- the respondent population;
- the sample;
- response variate(s);
- explanatory variate(s)?
- Does the meaning of the term *sample* as it is used in the article differ from our definition in STAT 332? Explain briefly.
  - What was the *sample size* in the survey?
  - What can be deduced from the article about the number of women who were selected but were *not* in the sample? Show your reasoning clearly and describe briefly why this matter is of statistical importance.

2 Identify the place(s), if any, where the article EM9331 raises issues that involve one or more of five categories of *error*:

- study error;
- non-response error;
- sample error;
- measurement error;
- model error.
  - What does the article describe as the *effect* of error? Explain briefly.
- Why is *comparison error* not mentioned in the article EM9331?

3 Explain briefly the *statistical* issue(s) involved in each of the following statements made overleaf on page 2.11 in the article.

- *The irony of challenging scientifically valid research on the basis of something as flimsy as "men's intuition" apparently escaped him.* [middle column, first paragraph]
- *In professional evaluations of research methodologies ..... the approach taken in our study has been recognized for a number of strengths: the random sample, the in-depth training of the interviewers, the face-to-face interviews, the confidentiality and anonymity of respondents, and the design of the questionnaire.* [middle column, second paragraph]
- *In addition to pre-testing, the questionnaire itself was subjected to professional scrutiny.* [middle column, second paragraph]
- *The sample ..... consisted of a list of addresses randomly selected by computer from a list of all the addresses in the City of Toronto.* [middle column, last paragraph, right-hand column, first paragraph]
- *This distinguishes our study from the vast majority of other research on the topic, which is based on non-random samples of specifically selected populations of women.* [right-hand column, first paragraph]
- *Statistics from that type of research cannot be generalized to the larger population because of biased sampling methods.* [right-hand column, first paragraph]
- *Since respondents in our survey were randomly selected, ... They suggest something about the extent of violence in women's lives more generally.* [right-hand column, second paragraph]
- *What's more, only 19 per cent of the eligible women contacted by an interviewer ..... including husbands, said that no one at that address was interested in the survey.* [right-hand column, third paragraph]
- *Of note, and contrary to the assumption that women who agreed to be interviewed were those who had experiences of abuse ..... they did not feel able to discuss them.* [right-hand column, fourth paragraph]
- *The interviewers ..... were highly skilled women who underwent at least 60 hours of rigorous training on survey-research methods, ... interviewing women on this painful and stigmatized subject.* [right-hand column, last paragraph]
- *Women interviewed for the survey were asked standardized questions.* [right-hand column, last paragraph]

The two articles EM9357 and EM9358 reprinted on the next three sides (pages 2.13 to 2.15) of this Figure 2.2b [*50% of women report assaults* and *Violence survey takes toll on staff*] provide additional information on the matters described by Haskell and Randall and raise similar statistical issues.

Figure 2.2b. SURVEY SAMPLING: Introductory Case Study 1 (continued 1)

EM9357: The Globe and Mail, November 19, 1993, pages A1, A4

50% of women report assaults

Ground-breaking Statscan survey finds violence pervasive

BY ALANNA MITCHELL
Social Trends Reporter

More than half of Canadian women have been physically or sexually assaulted at least once in their adult lives, the most comprehensive survey ever undertaken of violence against women shows.

Based on telephone interviews with 12,300 women, the Statistics Canada survey found assault of women by men so endemic that it has become the statistical norm: Fifty-one per cent say it has happened to them. Nation-wide, that would mean more than five million adult women.

One in 10 said they had been assaulted in the 12 months before they were polled. That would be more than one million women in Canada.

Nearly one attack in five (18 per cent) was violent enough to injure the woman physically. Of these, 28 per cent necessitated medical attention.

The figures were greeted with anger. "It is absolutely unacceptable that women have to live lives of terror – absolutely unacceptable", said Sunera Thobani, president of the National Action Committee on the Status of Women, the country's largest women's group. "This is a national crisis. We need [the government] to take clear action".

Bob Glossop, co-ordinator of programs and research for the Vanier Institute of the Family in Ottawa, said violence is "so widespread that no one can any longer try to dismiss this as a phenomenon that doesn't touch them. Indeed, it is a phenomenon that is endemic."

In spite of suggestions that the extent of violence against women has been exaggerated, the survey found it more pervasive than previous studies on a smaller scale had done.

"This has to force the government to take this seriously," said Glenda Simms, president of the Canadian Advisory Council on the Status of Women. "We have an epidemic on our hands and no one was listening. People were saying we were overdramatizing."

(Speaking to reporters in Vancouver yesterday afternoon, Prime Minister Jean Chrétien said he could not comment on the survey because he had not been briefed on its contents.)

The women interviewed were 18 years and older and randomly chosen.

They were asked a series of questions designed to elicit whether, since the age of 16, they had suffered an assault that would be considered an offence under the Criminal Code. Women who spoke neither English nor French were not interviewed.

The survey found women were most likely to be assaulted by men they knew. Almost half (45 per cent) of those interviewed said they had been assaulted by dates, boyfriends, husbands, friends, family members or other men familiar to them.

Almost a third (29 per cent) of those who were married or had been married reported being assaulted by a husband. (The figure includes common-law marriages). That would mean a staggering 2.6 million Canadian women have been the victim of wife assault.

"It is a tragic portrait of how, for far too many people, families are possibly the most dangerous place for them to be", Dr. Glossop said.

Violence was reported more or less evenly across every socioeconomic group and age category. There was one marked exception: Women aged 18-24 were more than twice as likely to report violence in the previous year as were older women – 27 per cent in the younger group said they had been assaulted.

Many women had experienced violence more than once in their lives. Almost 60 per cent who said they had been sexually assaulted reported more than one attack. Sixty-three per cent of those assaulted by a husband or former husband had been attacked more than once. One third said there had been more than 10 attacks.

The survey showed marriage was a dangerous place for many. Fifteen per cent of married women said their present husband had attacked them.

Almost half – 48 per cent – of women who had been married previously had been attacked by the partner during the marriage. Three-quarters of those said they had been assaulted more than once, and 41 per cent more than 10 times.

"Maybe this is offering us a clue about why marriages are breaking down", said Holly Johnson, Statscan's manager of the survey.

More than a third whose husbands had attacked them had feared for their lives. Weapons were used by 44 per cent of violent husbands.

Pregnancy did not protect women. More than one in five (21 per cent) of those attacked by a husband had been attacked while pregnant.

The survey also found that alcohol played a huge part in violence. Men had been drinking before more than 40 per cent of attacks. Women whose husbands drank at least four times a week ran triple the risk of assault of those whose husbands did not drink. Those whose husbands drank heavily were at six times the risk.

Just 14 per cent of all the incidents catalogued by the survey were reported to police. In only 9 percent did the women contact a social-service agency. Roughly 22 per cent of woman who had been assaulted said they had told no one about it before the Statscan questioner asked.

The survey also documented a cycle of violence between generations. Women whose fathers-in-law were violent were three times as likely to be assaulted by their husbands as those whose fathers-in-law were not violent. The survey also found that 39 percent of women in violent marriages said their children had witnessed an assault.

The statistics led observers to call for immediate action from the newly elected Liberal government.

Dr. Simms of the advisory council said Mr. Chrétien must formally appoint a minister of women's issues, to sit at the cabinet table. She said the results of the survey have implications for the departments of justice, health and finance.

Ms. Thobani said the fact that so few women are reporting assault means that there ought to be changes in the justice system. She also called for more money to be given

Highlights

- 51 per cent of Canadian women have experienced violence since the age of 16.
- 29 per cent of married or formerly married women were assaulted by their husbands.
- Almost 60 per cent who said they had been sexually assaulted were attacked more than once.
- 48 per cent of those who had been married previously had been attacked during marriage by the husbands.
- Women with violent fathers-in-law were three times more likely to be assaulted than other women.
- 18 per cent of the attacks were violent enough to cause physical injury.

(*continued overleaf*)

to anti-violence groups.

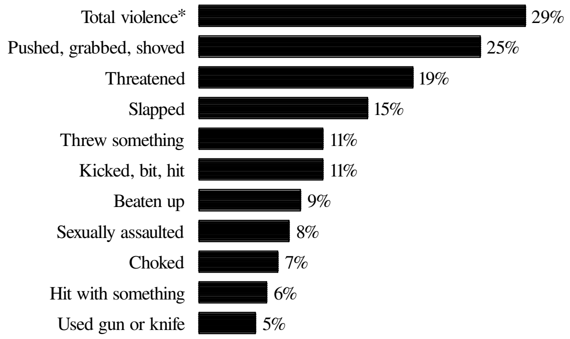
"I think we need to be way beyond convincing people that the problem exists," she said.

Sheila Finestone, secretary of state for the status of women, issued a statement saying that the Liberal government is committed to "safe homes and safe streets" and to finding solutions to violence.

The survey results were statistically likely to be accurate within 1.2 percentage points upward or downward, 19 times in 20.

HOW MARRIED WOMEN ARE HURT

Proportion of Canada's 9 million women who have ever been married or lived common-law, who reported assault by a partner (18 years and over)



*Figures do not add to 100% because of multiple responses

Source: Statistics Canada

DEFINITION OF VIOLENCE

The survey defined violence as an experience of physical or sexual assault that is consistent with legal definitions of these offences and could be acted on by a police officer.

Sexual Assault

The survey asked two questions about sexual assault by men other than husbands or common-law husbands:

1. "Has a (male stranger, date or boyfriend, other man known to you) ever forced you or attempted to force you into any sexual activity by threatening you, holding you down or hurting you in some way?"

2. "Has a (male stranger, date or boyfriend, other man known to you) ever touched you against your will in any sexual way, such as unwanted touching, grabbing, kissing or fondling?"

Wife Assault

Women were asked a series of questions about whether their husband or common-law husband had done certain violent things. Violent actions counted included these:

- threatened to hit you with his fist or anything else that could hurt you;
- thrown anything at you that could hurt you;
- pushed, grabbed or shoved you;
- slapped you;
- kicked, bit or hit you with his fist;
- hit you with something that could hurt you;
- beat you up;
- choked you;
- threatened to use or used a gun or knife on you;
- forced you into any sexual activity when you did not want to by threatening you, holding you down, or hurting you in some way.

Physical Assault

The survey asked two questions about physical assault by men other than husbands or common-law husbands.

1. "Now, I'm going to ask you some questions about physical attacks you may have had since the age of 16. By this I mean any use of force such such as being hit, slapped, kicked or grabbed, to being beaten, knifed or shot. Has a (male stranger, date or boyfriend, other man known to you) ever physically attacked you?"

2. "The next few questions are about face-to-face threats you may have experienced. By threats I mean any time you have been threatened with physical harm, since you were 16. Has a (male stranger, date or boyfriend, other man known to you) ever threatened to harm you? Did you believe he would do it?"

EM9358: The Globe and Mail, November 19, 1993, page A4

BEHIND THE NUMBERS / *The findings of abuse were so upsetting that some interviewers burned out*

Violence survey takes toll on staff

By ALANNA MITCHELL
Social Trends Reporter

CANADA'S first national survey on violence against women was so harrowing to conduct that the 30 female interviewers had weekly sessions with a psychologist during the five months it went on.

They were also screened by the psychologist before they got the jobs, said Holly Johnson, Statistics Canada project manager for the survey. They had to be able to handle high levels of stress and display excellent coping skills, she said.

Nevertheless, because of the large amount of violence reported, some of the interviewers burned out and many more left for other jobs.

In the survey, 12,300 randomly chosen Canadian women were telephoned and asked whether they had experienced physical or sexual violence as adults. The interviews, ranging from 15 minutes to three hours, took place between February and June after more than a year of testing and consultations with women's rights advocates.

The survey is the first of its type in the world and Canada's most comprehensive on the subject.

However, it has been harshly criticized by women's groups. Many felt that adequate statistics were already available and that the $1.9-million it cost to carry out the survey should have been spent on helping victims of violence.

"The bottom line is, the money's been spent, now will women be believed?" Susan Bazilli, a law-

WHO GETS HURT IN JUST ONE YEAR

Number of women 18 years and over who have experienced violence in the past 12 months

	Total female population	Total women victimized (past 12 months)	
Total:	10,498,000	1,016,000	10%
Age group: 18-24	1,315,000	353,000	27
25-34	2,338,000	331,000	14
35-44	2,256,000	191,000	8
45-54	1,628,000	91,000	6
55 and over	2,961,000	49,000	2
Household income:			
Less than $15,000	1,324,000	166,000	13
$15,000-$29,999	1,860,000	198,000	11
$30,000-59,999	3,580,000	312,000	9
$60,000 or more	2,036,000	197,000	10
Not stated/Don't know	1,698,000	142,000	8
Education:			
Less than high school diploma	2,747,000	207,000	8
High school diploma	2,805,000	260,000	9
Some post secondary education	3,299,000	401,000	12
University degree	1,628,000	148,000	9

Source: Statistics Canada

(*continued*)

Figure 2.2b. SURVEY SAMPLING: Introductory Case Study 1 (continued 2)

yer with the Metro Action Committee on Public Violence against Women and Children in Toronto, said yesterday.

Activists have also spoken out against a $10-million federal government panel whose report on stories of violence against women was released in July.

Women's groups feared the Statscan survey would produce evidence that a low number of women are assaulted. They were also concerned that the interviews themselves would put women at risk, especially if they were in the company of an abuser when the phone rang.

"It's an extremely traumatic experience. Do they say: Thanks for your time', and hang up?" Ms. Bazilli said.

Almost one-quarter of the women surveyed who reported assaults to the interviewer had never told anyone about them.

But Karen Rogers, a senior analyst who worked on the survey, said extensive advance testing indicated that women did not appear to flock to community-service organizations in distress after their interviews.

Some groups were also critical of the survey because it did not capture data from women who do not speak French or English. It also failed to reach women in Canada's North; those who do not own a telephone; or those in shelters for battered women.

However, it is still considered statistically representative of Canadian women.

Statscan will publish more data from the survey in March.

The following article EM9608 deals with subject matter related to that of the previous two articles; however, although it, too, has an *observational* Plan, it does *not* involve a sample survey and so some of the statistical issues it raises differ from those of the previous articles in this Figure 2.2b.

EM9608: The Globe and Mail, January 3, 1996, page A3

Women's lives saved through U.S. initiative

Prosecutors get results with tough new policy on wife batterers

BY HENRY HESS
Crime Reporter

TORONTO – A San Diego city prosecutor's determination to take wife-battering as seriously as murder is credited with saving dozens of women's lives in that city.

When Casey Gwinn decided in 1988 that it wasn't fair to expect victims of spousal abuse to bear primary responsibility for bringing their abusers to justice, he revolutionized domestic-violence prosecutions in San Diego and laid the foundation for similar programs across the United States.

After all, "we go forward on homicide cases without victim participation", Mr. Gwinn's assistant, Gael Strack, said in a recent interview in Toronto. "It's no different."

Now, the head of a Metro Toronto anti-battering group is calling on Canadian police and Crown prosecutors to learn from that example.

"In the States, there has been incredible progress made", said Vivien Green, co-ordinator of the Metro Woman Abuse Protocol Project. "They are prosecuting these cases and having great success reducing homicides. Here, the system says: 'Oh, no, no, no. It's not that important.'"

This past fall, Ms. Green's group invited Ms. Strack, a deputy city attorney in San Diego's domestic-violence unit, to share her expertise. In several workshops aimed at police and Crown officials, Ms. Strack described how her city's decision to take a hard line against spousal abuse has reduced homicides attributed to domestic violence by 60 per cent.

For years, she said, 25 to 35 women a year died at the hands of their partners in San Diego, a sprawling metropolis of about 1.5 million in Southern California.

Even though California had added a chapter to its criminal code in 1984 specifically outlawing spousal assault, police and the courts were treating it like a traffic violation. If a woman complained of being beaten, police would issue a ticket. But often the person charged did not show up in court, and in most cases, nothing happened.

'They are prosecuting these cases and having great success reducing homicides. Here, the system says: 'Oh, no, no, no. It's not that important.'

"You practically had to kill a woman in San Diego to get arrested."

It was Mr. Gwinn and the case of the judge's girlfriend that turned things around, she said.

The case involved a pregnant woman who had been badly beaten, allegedly by her live-in lover, a San Diego judge. "She came into our office, and what she told us was horrifying. We got the 911 tapes, medical records, her torn and bloody clothing."

Mr. Gwinn was outraged. He photographed the woman's injuries and talked to neighbours, who told of a history of domestic violence. But when the city attorney's office, which prosecutes criminal cases in San Diego, charged the judge with spousal assault, it found itself at the centre of a firestorm.

"We issued the complaint – and all hell broke loose", Ms. Strack recounted. The news media and legal establishment sided with the judge; the victim vanished into Mexico and could not be found.

"So we decided to go forward without her, on the basis of her statements given in evidence" before disappearing, she said.

Every judge in the city disqualified himself from presiding over the trial, so they had to bring one out of retirement, Ms. Strack said. He threw out half the evidence by ruling that the jury couldn't hear the tape of the woman's 911 call or the evidence of prior assaults.

After an eight-day trial, the jury came back split 11-1, with the majority favouring a not-guilty verdict. That was enough for the presiding judge, who not only dismissed the charge but also rendered a decision of factual innocence, Ms. Strack said. "That's even better than not guilty."

Mr. Gwinn decided to figure out what went wrong and how to change it. Why weren't police laying charges? Why weren't doctors reporting cases of suspected domestic violence to police, as required by California law?

Later that year, he persuaded city council to form the first unit in the United States dedicated to prosecuting cases of domestic violence.

"At first, when we started prosecuting

(*continued overleaf*)

cases we were losing them," she said, so they changed tactics.

When they found it impossible to get convictions from judges, they decided to try all cases before a jury. Gradually, they started getting 911 tapes and other supporting evidence admitted. They also worked with police to improve the investigation of spousal assaults.

One of the most radical decisions was to prosecute even when a victim refused to testify or sought to have charges dropped.

"There's nothing in law that says the victim must consent to prosecute a homicide or robbery," Ms. Strack pointed out. Why should spousal assault be different?

"That was the first thing we agreed on in San Diego: to stop asking the question 'Do you really want to prosecute'."

The close relationship with their abuser puts awful pressure on victims of domestic violence, she noted. "Our figures of the last 10 years show that 75 per cent of the time the victim will lie, recant or disppear."

The key to successful prosecution is to have the evidence, Ms. Strack told a workshop at Metro Hall. They learned there is a 48-hour window of opportunity to gather evidence "before the victim starts forgiving and retracting."

"The evidence is there. All you have to do is ask the right questions."

She encourages police to interview paramedics, look for the bloody towel the victim may have used to clean herself up, get access to medical records for indications of previous abuse, and take pictures.

"As soon as we started getting convictions, things started happening," she said.

The number of charges for spousal abuse more than doubled, from 7,000 in 1990 to 15,000 in 1994. Ninety-five per cent of those accused now plead guilty before the case ever gets to trial; of those that do get to court, 89 per cent are convicted.

Sentences average 90 days in prison, she said, but that is less important than the other conditions. "What we care about is three years probation and [an order for] counselling. Everything else is negotiable."

Experience has shown that few of those convicted reoffend. "There's a very low recidivism rate after going through a full-blown jury trial."

A batterer's greatest fears, she said, are going to jail and being exposed as a nasty person. "Many are Jekyll-and-Hyde types."

"We're not better than everyone else," Ms. Strack told the workshop, "but we don't take no for an answer and we just don't give up."

She added that success requires more than just pro-arrest policing. "Arrest without the rest of it means nothing."

In Toronto, police and Crown officials said it is hard to measure what is happening here against San Diego's experience. The Criminal Code of Canada treats domestic violence like any other assault, so there are no reliable statistics on the number of charges, the conviction rate or sentencing patterns.

(Metro police statistics suggest that 10 of last year's 64 homicides were linked to domestic violence.)

Ms. Green said that in tracking individual cases, her group has found that too often Crown prosecutors and the courts take spousal assault too lightly.

"Police have made gains. They're laying more charges and putting those charges before the courts, but the courts aren't dealing with it."

She said the lack of publicly funded counselling programs is also a major flaw. "We do have a system where most of these guys get probation and judges order some kind of counselling as a condition," but there are not nearly enough spaces to accommodate them, and provincial cutbacks threaten those that do exist.

Ms. Green said her group estimates there are 21,000 adults on probation in Metro, one-quarter for a domestic-violence offence, but only 118 spaces for group counselling. There is a four-year waiting list to get into the only program in Metro that gets provincial funding.

"So, judges are putting them on probation and there's no consequences."

In San Diego, Ms. Strack said, offenders have to pay for their own counselling.

4 What does the article EM9608 reprinted overleaf on page 2.15 and above indicate (explicitly or implicitly) about the investigation with regard to:

- the target population;
- the study population;
- the frame;
- the respondent population;
- the sample;
- response variate(s);
- explanatory variate(s)?
- In light of your answers to this question and to Question 1 on the second side (page 2.12) of this Figure 2.2b, compare and contrast the Plan of the Haskell and Randall sample survey and the investigation in San Diego.
  - Comment briefly on the statistical implications of both investigations having *observational* Plans.

5 Suppose you were to be employed as statistical advisor to the Metro Woman Abuse Protocol Project; your task is to assist with investigating the lessons for Metro that can be learned from the work in San Diego. Outline key matters you would recommend for initial consideration.

- What clarifications, if any, about matters raised in the article EM9608 reprinted overleaf on page 2.15 and above would you seek from Ms. Stack? Explain briefly.

This Figure 2.2b in the STAT 332 Course Materials is also Statistical Highlight #86.