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ARTICLES

The Inequality of Victimization

Trends in Exposure to Crime among Rich and Poor

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ABSTRACT =

Over the past decade, western societies have witnessed an increasing divergence in living standards of different social groups. This article examines whether increasing differences in living conditions are reflected in increasing inequality of victimization. Using data from Statistics Sweden's Surveys of Living Conditions (1984–2001) the study shows that exposure to crimes of theft and violence has followed different trends for poorly resourced and well-resourced groups respectively. The proportion experiencing victimization, first and foremost in the form of violence and threats but also to some extent in the form of residential burglaries, is significantly greater among the poor than among the rich. Furthermore, the difference between these two groups has become greater.

KEY WORDS

Crime / Income / Inequality / Sweden / Theft / Trends / Victimization / Victim Survey / Violence.

Introduction

Over the past decade, society has witnessed an increasing divergence in the living standards of different social groups. The Swedish level-of-living surveys show for example that, in general, single parents, immigrants, young people and those living on low incomes have experienced an unfavourable trend in the areas of health, employment, financial situation and political participation, relative to other segments of society (Palme et al. 2002; SCB 2003). Inequalities in levels of disposable income have also

become more pronounced. Following decades of decline in income differentials, this trend was reversed during the 1980s and 1990s, both in the relatively 'equal' welfare states of Scandinavia and in the majority of other western countries (Gottschalk and Smeeding 2000; Fritzell 2001). Although levels of inequality in Europe have yet to reach those of the USA, a polarization is becoming discernible in many European countries (e.g. the United Kingdom, Holland, France, Germany and the Scandinavian countries) whereby the poor are losing ground as the wealthy become wealthier still (Gottschalk and Smeeding 2000).

In the field of welfare research, economic resources and income are viewed as central indicators with regard to the assessment of people's living conditions and the opportunities available to them. The validity of this view has been confirmed by empirical analyses showing that economic resources are closely related to conditions in other areas of welfare such as health, employment, social capital (Erikson 1993) and fear of and exposure to crime (Pantazis 2000; Hope 2001; Nilsson and Estrada 2003; Estrada and Nilsson 2004). The fact that different welfare problems and resources tend to be related to one another means that aggregate differences between individuals and groups become even more marked (Erikson 1993; Nilsson 2003; Estrada and Nilsson 2004). Against this background, it is not surprising that both the distribution of incomes in general and trends in the associated level of inequality in particular have today become a central issue for researchers.

By contrast, this interest has not been fully shared by criminological researchers, even though both classical and contemporary criminological theories emphasize the importance of poverty and class-based resource differentials for an understanding of patterns of offending and victimization (Merton 1938; Shaw and McKay 1942; Currie 1997; Hagan and McCarthy 1997; Hope 2001). The relationship between patterns of crime and the economic cycle has also been the subject of considerable attention in criminological research. Different theoretical perspectives have argued that periods of economic decline or recession and increased inequality lead to increases in crime. The theoretical perspective most directly associated with this assumption is anomie or strain theory (Merton 1938).¹

In the area of victimological research, a great deal of interest has been focused on the question of the distribution of criminal victimization and the fear of crime. Explanations of the differences found between different

¹ Although the importance of poverty and inequality in relation to crime has been questioned, since the post-war increase in crime levels occurred in parallel with a massive increase in welfare for the majority of the population (see e.g. Wilson and Herrnstein 1985), this view misses the fact that it is relative rather than absolute deprivation that is viewed as the most important factor (Merton 1938: 680f; see also Young 1999).

social groups emphasize among other things the limiting effect that poverty at both the individual and neighbourhood level has on people's ability to affect their life situation (Hindelang et al. 1978; Hope 2001). A number of studies have also examined the relationship between victimization and inequality (see e.g. Mawby and Walklate 1994, and Levitt 1999, for a brief review). These studies have almost without exception been based on cross-sectional data. The literature in this area indicates the existence of a clear correlation whereby the most economically vulnerable groups are also those most often exposed to violent crime, whereas the relationship is not so clear in relation to theft crime (Mawby and Walklate 1994; Currie 1997; Levitt 1999; Westfelt 2001; Tseloni et al. 2004).

Given this interest in the relationship between inequality and crime, it is remarkable how little research has been conducted into *time trends in the inequality of victimization*. Over 10 years after Meier and Miethe (1993: 470) identified this gap in the research, only a small number of studies have been published on how differences in levels of exposure to crime between poorly and better resourced groups have developed over time. The objective of the present study is to analyse trends in exposure to violent and theft crime among the poorest and most wealthy segments of the population. The central question examined is whether increasing inequalities in income and living conditions are reflected in increasing inequality in the risks of victimization. Can a trend towards polarization of socioeconomic groups be discerned even in relation to levels of exposure to crime?

Existing research on trends in the inequality of victimization

The trend towards an increase in victimization-related inequalities was noted earlier in Great Britain than it was elsewhere. Studies by Trickett et al. (1995) and Hope (1996) have shown that the substantial increases in crime that were witnessed in parallel with increased income inequalities during the 1980s were for the most part restricted to certain residential neighbourhoods. Between 1982 and 1988, there occurred a concentration, first and foremost of theft offences, among the 10 percent of neighbourhoods that were already subject to the highest levels of crime. Young and Matthews (2003) argue that this trend towards an increased level of exposure to crime in poorer areas continued during the 1990s despite a general decline in crime levels.

Levitt (1999) arrives at somewhat similar conclusions in the context of his analysis of trends in the USA between 1974 and 1994. Levitt's study was also conducted against a background of increased income differentials.

Levitt argues that exposure to certain types of theft crime is becoming increasingly concentrated in poor neighbourhoods and low-income groups. By contrast, Levitt argues that the situation with regard to violent victimization is characterized by the reverse tendency, with the wealthiest groups found to be those whose level of victimization has increased the most. This latter finding is refuted by Thacher (2004), however, who conducted new analyses with the same data (NCVS - i.e. the American victim surveys). Thacher's analyses confirm the increased concentration of theft offences among the poor during the period 1974 to 2000, but he is also able to show that the general reduction in levels of exposure to violence reported in the surveys is not distributed equally. The reduction has been greatest among the wealthy, which means that exposure to violent crime has also become increasingly concentrated among the poorest 20 percent of the population (defined on the basis of self-reported household income). It is nonetheless worth noting that even poorer groups in the USA report a reduction in levels of exposure to both theft and violent offences during the period covered by the surveys.

In an analysis of the consequences of the economic crisis witnessed in Sweden during the 1990s, we showed that trends in victimization among those segments of the population that had experienced the most unfavourable trends in levels of welfare – namely single parents, youths, people born abroad and the poorest 20 percent of the population – differed from those of the remainder of the population to the disadvantage of the poorest groups (Nilsson and Estrada 2003). Both Thacher's study and our own study show that there are compositional effects, that is, that the segment of the population characterized by the lowest levels of income has over time come to include a larger proportion of people from groups characterized by higher levels of victimization (e.g. youths and single parents). At the same time, however, both the Swedish and the American studies show that this factor is not sufficient fully to explain the findings. Significant tendencies towards polarization remain even when controls are included for the compositional effects described.

The above research shows that, even if the problem of criminal victimization has not increased in terms of the proportion of the population affected, the situation may nonetheless have deteriorated among marginal groups, and the distance dividing them from the rest of population may have increased. These studies highlight the fact that certain vulnerable groups are also having to shoulder an increasingly large part of the crime problem. Thacher (2004) describes well the significance of this research. Firstly, analyses of inequalities in victimization trends may facilitate an integration of this area of research with the broader field of sociological and economic research into inequality and social stratification. The first

important question that arises concerns the fusion of different problems: to what extent does exposure to crime interact with other factors that produce inequality (Hope 2001; Estrada and Nilsson 2004)? Secondly, from a theoretical perspective, it is not always the case that the factors explaining cross-sectional differences also explain changes over time. Analyses of time trends can therefore contribute towards understanding why different groups are differentially exposed to victimization. Thirdly, Thacher points out that knowing whether levels of inequality are more or less substantial than previously is of fundamental importance to the interpretation of the distribution of victimization at a given point in time. As both Trickett et al. (1995) and Young and Matthews (2003) have also pointed out, this factor is clearly very significant in the political context.

Research questions and outline

In this study the central research question addressed focuses on the issue of concentration effects in relation to criminal victimization, i.e. it looks at whether trends differ across different social groups specified according to their social position. Can the trend that we previously linked to the economic crisis experienced during the first part of the 1990s (Nilsson and Estrada 2003) be traced back further to the years when Sweden was experiencing economic growth? Has the trend continued since the economic recovery of the late 1990s? We will also be looking more closely at the possible significance of this polarization for more specific types of offence, a question that has been examined to only a limited extent in earlier studies.

The article continues with a description of the Swedish level-of-living surveys, of which the victimization surveys constitute a part. The subsequent presentation of results begins with a general description of exposure to crime at the national level during the period 1978–2002. We then move on to describe victimization in relation to various categories of violence and theft. The presentation of findings concludes with multivariate analyses, which control for differences and changes in the composition of the groups comprising the wealthy and poor segments of the population.

Data

The descriptions and analyses of victimization among different segments of the population are based on Statistics Sweden's (SCB's) surveys of Swedish living conditions (the so-called ULF surveys). These are based on personal interviews with a representative sample of the population aged between 16 and 84 years. Approximately 6000 individuals are interviewed annually. The level of non-response is approximately 20 percent for the ULF surveys.² The objective of the ULF surveys is to show how the welfare of different sections of the population changes over time. The interviews include questions on many different aspects of welfare, such as health, housing, social relations, political resources, financial resources, education and employment. Questions on safety and exposure to crime have been included since 1978. Alongside the information collected during the interview, the material also includes officially recorded data on incomes and benefits. The ULF database constitutes a central resource within the field of Swedish social research and provides a point of reference for social debate and reform work (see e.g. Erikson 1993; Palme et al. 2002; SCB 2003).

Because the victimization questions are part of a much broader survey, this provides an excellent basis for studying the factors that influence the pattern of victimization. A further advantage is that victim surveys of the kind included in the ULF data set are not affected to the same extent as are official crime statistics by changes in levels of tolerance for crime or in the propensity to report offences. The surveys are subject to a number of other limitations, however. These relate to missing data, difficulties associated with the study of more serious types of crime, and under- and over-reporting. This last factor relates to the discrepancy between actual and reported exposure to crime. Questions relating to criminal victimization may be perceived as being quite sensitive. This is particularly true in relation to the question of domestic violence or sex offences, incidents that are therefore assumed to be subject to underreporting (Walby and Myhill 2001). A further problem is that those groups that we know to be subject to particularly high levels of victimization for example, the homeless, convicted offenders, drug and alcohol abusers - tend to be less well represented than others in surveys of this kind. These are groups that are small in relation to the population as a whole and, even when they are included in the originally selected sample, they are more likely than members of other groups to end up as nonrespondents. This factor should not have any major effect on the general picture of victimization within the population at large, however, precisely because these groups are relatively small.

² Generally speaking, differences between missing cases and the respondents interviewed have relatively minor significance for the estimates made on the basis of the ULF data. To reduce non-response bias, weights were applied at the analysis stage to the data stratified by sex, age, region and marital status. Because the present analysis showed only marginal differences between results for weighted and unweighted data, we have decided to present the findings for unweighted data only.

Study period and sample

In 1984/5, 1992/3 and 2000/1, the survey's coverage of questions of safety and victimization was extended. For this reason, the present study is primarily based on the data collected in these six years. The analyses have been limited to persons aged between 20 and 64, giving a total of 27,568 individuals. The survey years chosen for analysis are also interesting because they represent contrasting times for the Swedish economy: boom, recession, recovery. In the mid-1980s, Sweden was at the start of a period of economic boom, with a low rate of unemployment (3 percent) and also relatively low levels of income inequality (SCB 2003). In 1992 and 1993, Sweden found itself in the middle of an economic crisis that – among other things - involved a threefold increase in unemployment to historically high levels, and many groups experienced a reduction in disposable income (Palme et al. 2002). By the beginning of the 21st century, the crisis was over. The economic recovery has not seen the rate of unemployment return to the levels of the mid-1980s, however, and levels of income inequality have also increased. The financial and social situation experienced during the years 2000/1, particularly among those groups that are most financially vulnerable – e.g. single parents, young people and immigrants – remained substantially worse than it had been during the period prior to the economic crisis (SCB 2003). This means that different social groups have recouped resources and welfare to a different extent.

Operationalization

In order to define the groups comprising the rich and the poor, we have employed a combination of officially recorded data and interview data on financial resources. On the basis of recorded data on household disposable income, we have constructed a variable for each year of the survey, which, after standardizing for the number of household members, distinguishes the 20 percent of 20–64 year-olds with the highest and lowest levels of income respectively. The ULF surveys also include interview items focused specifically on the respondent's financial situation. One question that is often exploited in studies of living conditions relates to individual access to what may be termed a 'cash safety margin', that is, whether one would be able to lay one's hands on a specified sum of money in the event of an unexpected situation arising and, if so, how – by using cash and bank withdrawals or by borrowing. The specified sum is corrected for inflation in each annual data collection wave; in the 2001 survey, it was SEK 14,000 (around €1500).

On the basis of these indicators of household disposable income and access to a cash safety margin, we have defined the 20 percent with the lowest incomes, and who also lack access to a cash safety margin in the

form of their own assets, as constituting 'the poor'. The rich, on the other hand, have been defined as comprising the 20 percent with the highest incomes and who also have access to a cash safety margin without having to borrow. The advantages of this measure are that, on the one hand, those with low recorded incomes but who have access to cash should they need it do not have be counted among the poor, and, on the other, those with high recorded incomes but who lack access to a cash safety margin are not counted among the rich. By combining recorded data on incomes with an interview item more directly focused on financial difficulties, we have thus created a more valid indicator of whether a given individual has or lacks access to financial resources. Over the course of the entire period covered by study, 16.2 percent of the sample are counted among the rich, as defined in this way, and 11.6 percent among the poor. The proportions of both rich and poor are somewhat larger at the end of the study than at the beginning.³ The survey items and operationalizations employed to measure exposure to crime are presented in connection with the findings.

Findings

The general trend

All of the ULF surveys conducted since 1978 have included four principal questions relating to exposure to violence, focusing on different degrees of seriousness. The first question relates to the most serious form of violence and reads: During the last twelve months, have you personally been the victim of a violent act or acts that have led to injuries requiring you to visit a doctor, dentist or nurse? The respondent is then asked about violence that caused visible marks or physical injury, violence that did not lead to visible marks or physical injury, and whether he or she has been threatened with violence in such a way as to be frightened (Häll 2004). Unlike the questions on violence, the items focusing on theft or vandalism relate not only to the individual respondent but also to his or her household; the principal item here reads: Have you, or has anybody else in your household, been the victim of one or more of the following crimes during the last twelve months? The offences referred to in the survey item are theft or vandalism

³ In 1984/5, 11.2 percent are included among 'the poor' and 14.9 percent among 'the rich'. In 2000/1, 12.6 percent are counted among 'the poor' and 17.2 percent among 'the rich'. The central pattern in relation to the findings presented below is stable in the sense that the findings are confirmed by alternative operationalizations using a categorization into the same three income groups but without employing information relating to access to a cash safety margin, or using 50 percent of median income as the cut-off point for the measure of poverty.

at the respondent's 'principal place of residence; in a loft-space, cellar-space, or other storage space; in the respondent's weekend cottage; of their car; of something from their car; of a bicycle, moped, motorcycle or of parts thereof; other thefts, for example, at the respondent's place of work, in connection with travel, of a boat etc'.

Figure 1 presents the trends in exposure to theft/vandalism and violence or threats respectively for the population of Sweden during the period 1978–2002. It can be seen that a relatively large proportion of the violent incidents reported consist of threats. As regards more serious violence, the level of victimization generally appears to be relatively stable (Estrada 2005). Two periods may be distinguished, however, where the figures relating to the aggregate proportions reporting exposure to threats or violence, or to theft or vandalism, lie at somewhat different levels. During the years 1978–89, the total level of exposure to threats or violence



Figure 1 Proportion of population from households exposed to theft or vandalism (16–84 year olds, 1982–2002) and proportion reporting personal exposure to threats or violence, the threat of violence, violence resulting in visible injury, and violence requiring medical attention (16–74 year-olds, 1978–2002).

stood at 5–6 percent, whereas it stood at 7–8 percent during the period 1990–2002. During the same periods, levels of exposure to theft/vandalism offences stood at just under 25 percent and slightly over 26 percent, respectively. Thus, for the population at large, the victim surveys do not provide evidence of any form of continuous or substantial increase in exposure to either violence or theft/vandalism over the most recent decades. Given the nature of the analyses presented below, it should in conclusion also be noted that the years of the survey that included more detailed victimization questions – 1984/5, 1992/3 and 2000/1 – do not differ from the years contiguous to them in the time series.

Exposure to violence and threatening behaviour

The dependent variables employed in subsequent analyses as indicators of violence or threatening behaviour comprise, on the one hand, exposure to any form of threat or violence and, on the other, exposure to acts of serious violence. The latter term refers to violence that has resulted in the respondent seeking medical attention. At the general level, there are substantial differences in levels of exposure to violence between financially vulnerable segments of the population and groups characterized by higher levels of financial resources. The proportion reporting exposure to violence among the poor is about twice as large as the proportion among the rich. For the six years examined in the current study, the mean level of exposure to threats or violence over the course of the previous 12 months is 11.3 percent among the poor, whereas the corresponding proportion is 5.2 percent among the rich. What is most interesting in the context of the current study, however, is that this excess risk does not remain stable over time.

Table 1 shows that victimization has undergone a marked polarization. At the same time as the group with the lowest level of resources experienced an increase in levels of exposure to threats or violence during the period 1984/5–2000/1, the rich experienced an increase only until 1992/3. After this point the rich group's level of exposure declines somewhat. If the focus is restricted to the most serious violence, i.e. that which has resulted in some form of medical attention, the relative differences between the two groups become more dramatic. At the end of the period covered by the study, the levels of exposure to this form of violence are 2.2 percent among the poor and 0.3 percent among the rich. A third way of illuminating this trend in the unequal distribution of violent victimization is to look at the proportion of all reported violent incidents, including threats, accounted for by the different groups in each wave of the survey. This analysis of the number of violent incidents also shows a polarization

Table 1 Distribution of threats or violence, violence requiring medical attention and the incidence ratio by income level and gender, 20–64 year-olds: Proportion (%) reporting victimization and relative risk between poor and rich

Type of violence	1984/5				1992/3			2000/1				
	P	М	R	RR	P	М	R	RR	P	М	R	RR
Threats or violence:	7.3	4.9	4.8	1.5	11.1	7.6	5.8	1.9	13.0	8.2	5.1	2.5
Women	6.2	4.4	2.5	2.5	9.8	6.5	4.7	2.1	12.2	7.1	4.7	2.6
Men	8.5	5.4	6.8	1.2	12.6	8.7	6.9	1.8	14.0	9.3	5.5	2.5
Violence req. medical	1.1	0.8	0.3	3.7	1.2	0.7	0.5	2.4	2.2	1.0	0.3	7.3
Women	0.9	0.6	0.2	4.5	1.5	0.4	0.4	3.7	1.2	0.6	0.3	4.0
Men	1.4	1.0	0.4	3.5	0.9	1.1	0.7	1.3	3.4	1.4	0.3	11.3
Incidence ratio ^a	1.43	0.94	0.99		1.33	0.99	0.81		1.60	1.00	0.52	
Women	1.44	0.87	0.50		1.44	0.94	0.76		1.61	0.93	0.51	
Men	1.44	1.00	1.37		1.21	1.05	0.86		1.63	1.09	0.53	
N	1097	7281	1466		990	6418	1473		1082	6027	1474	

Notes: P = poor; M = middle income; R = rich; RR = relative risk

^aThe incidence ratio is calculated by dividing the proportion of the aggregate number of incidents of threats/violence reported by a given group by the proportion of the population comprised by the group. A ratio of 1.0 would mean that the proportion of incidents reported by the group corresponds exactly to the proportion of the population accounted for by the group's members. In order to avoid cases with extreme values exerting an excessive influence on the results, the small number of individuals reporting exposure to more than 10 incidents have been coded as having reported 11 such incidents.

whereby an increasingly large proportion of these incidents become concentrated over time within the poorest group. Within the groups, men's levels of exposure are generally higher than those of women. It is notable, however, that the women in the poorest group experience higher levels of victimization than do well-resourced men.

Threats and violence by location

The ULF survey includes questions about where the reported violent incidents took place. This makes it possible to study differences in the types of violence to which different groups are exposed. As can be seen from Table 2, the violence experienced by rich and poor tends to occur in different types of location, and the excess risk experienced by the poor is not found in relation to all types of violence. The higher levels of violence experienced by the poor are primarily accounted for by violence that is reported to have taken place in the respondent's own or somebody else's home. Among the women, this largely involves violence perpetrated by a male partner, and the differences by levels of financial resources are particularly large in this respect (see also Estrada and Nilsson 2004). Between 1984/5 and 2000/1, a clear polarization takes place in this type of violence. Whereas the level of exposure experienced by the rich decreases somewhat, it rises substantially among the poor. The increase in the level of differences between the groups is particularly notable among the women in this regard. There are also substantial differences in relation to violence that occurs out of doors, often in association with public entertainments. Here there is no increase in relative inequality, however, even though the differences do become greater in terms of the numbers involved. It is also important to note that levels of violence out of doors increase in each phase of the analysis among the poor, whereas among the rich they decline at the end of the period studied to previous, lower levels. The one category of violent acts that deviates quite clearly from this general pattern is that of work-related violence. During the mid-1980s, both the men and the women within the poorest group experience a disproportionately low risk in relation to this form of violence. Over time, however, there is an eveningout as the levels of threats and violence at work reported by the poor increase at the same time as they decrease somewhat among the rich. This is primarily owing to the fact that the men in the rich group deviate from all of the other groups examined by reporting a continuous reduction in levels of exposure to work-related violence. For the remaining groups, there is a clear increase in levels of exposure to work-related threats and violence.

Table 2 Distribution of violence or threatening behaviour at different locations by income and gender, 20–64 year-olds: Proportion (%) reporting victimization and relative risk between poor and rich

Type of violence	1984/5				1992/3				2000/1			
	P	М	R	RR	P	М	R	RR	P	М	R	RR
Threats/violence at work	0.9	1.5	2.5	0.4	2.2	2.2	2.6	0.8	2.5	3.2	2.3	1.1
Women	0.7	1.5	1.5	0.5	1.7	2.4	2.7	0.6	2.7	3.5	2.9	0.9
Men	1.2	1.5	3.3	0.4	2.8	2.0	2.5	1.1	2.3	2.8	1.8	1.3
Threats/violence home	2.5	1.1	0.8	3.1	3.3	1.5	0.8	4.1	4.4	1.7	0.5	8.8
Women	3.1	1.5	0.6	5.2	4.7	2.0	0.6	7.8	5.7	1.8	0.6	9.5
Men	1.7	0.7	1.0	1.7	1.7	1.1	1.0	1.7	2.9	1.5	0.4	7.2
Threats/violence outside	4.1	2.4	1.6	2.6	5.6	4.1	2.9	1.9	7.0	3.5	2.2	3.1
Women	2.1	1.5	0.5	4.2	3.4	2.3	1.6	2.1	4.7	1.7	0.9	5.2
Men	6.4	3.3	2.5	2.6	8.0	5.9	4.2	1.9	9.9	5.3	3.3	3.0
N	1097	7281	1466		990	6418	1473		1082	6027	1474	

Notes: P = poor; M = middle income; R = rich; RR = relative risk

Exposure to theft and vandalism

With regard to theft and vandalism, we have restricted ourselves to survey items focusing on theft or vandalism in the home, from a cellar-space, storage space, garage or other space linked to the home (dwelling-related), and to thefts of bicycles/mopeds/motorcycles and thefts of or from cars (vehicle-related). Our interest is primarily directed at what is commonly referred to as everyday crime, that is, offences to which people are exposed in the course of their everyday lives: at home, in their residential neighbourhood, on the way to and from home, and at work. We have therefore excluded the category 'other', which inter alia includes thefts and vandalism during trips abroad and thefts from weekend cottages. In each of the six years examined, 6 percent of households were exposed to dwellingrelated offences and 19 percent to vehicle-related crimes. Table 3 shows that both the distribution of and the trends followed by dwelling-related offences over time follow a pattern similar to that described in relation to violent offences. Differences between the various income groups were nonexistent in the mid-1980s and then increased. The poor households have experienced a continuous increase in dwelling-related theft and vandalism offences, whereas, by the end of the period, the highest income group is once again reporting similar levels to those of the mid-1980s. Exposure to vehicle-related offences is much more common than dwelling-related victimization and here the differences between the income groups are small, as regards both the level of victimization and the trend over time. Finally, when the focus is directed at the trend in the number of theft offences, we see that, as was the case with violent victimization, there is a tendency towards a greater concentration of incidents of victimization within the group with the lowest level of resources. The differences between men and women are smaller than they were in relation to violence and threatening behaviour, which is to be expected, inter alia as a result of the fact that the focus is in this instance directed at victimization at the level of the household rather than the individual. For this reason, we have also chosen not to present the incidence ratio by gender.

Differences in victimization risk after controlling for group composition

As was noted in the introduction, the fact that levels of financial resources vary greatly between different segments of the population should be taken into account when interpreting differences both in levels of victimization and in trends over time.

The income groups compared in the above analyses differ in terms of

Table 3 Household exposure to theft and vandalism by income group and gender: Theft/vandalism in or in association with the respondent's principal dwelling and theft/vandalism of a car, motorcycle, moped or bicycle, 20–64 year-olds. Proportion (%) reporting victimization and relative risk between poor and rich

Type of theft	1984/5			1992/3				2000/1				
	P	М	R	RR	P	М	R	RR	P	М	R	RR
Theft dwelling	5.7	5.8	5.4	1.1	8.2	6.1	6.4	1.3	9.0	6.1	5.3	1.7
Women	5.8	5.8	5.1	1.1	7.2	6.6	5.8	1.2	8.0	5.9	4.5	1.8
Men	5.6	5.7	5.7	1.0	9.3	5.5	6.9	1.3	10.1	6.4	6.0	1.7
Theft vehicle	16.7	15.2	15.1	1.1	21.5	20.5	20.7	1.0	21.8	20.3	18.7	1.2
Women	14.1	14.2	14.3	1.0	20.8	20.3	19.5	1.1	20.2	19.1	19.7	1.0
Men	19.6	16.2	15.8	1.2	22.3	20.6	21.8	1.0	23.8	21.4	17.7	1.3
Incidence ratio	1.08	1.01	0.88		1.21	0.98	0.96		1.28	0.99	0.84	
N	1098	7285	1466		990	6424	1473		1083	6031	1474	

Notes: P = poor; M = middle income; R = rich; RR = relative risk

their composition, not least with regard to age (the mean age in the poorest group is 34.9 years, and in the rich group 47.7 years). In addition, the composition of the different income groups has changed somewhat during the period covered by the study. During the 1990s, single parents, persons born abroad and youths were among the losers in the area of welfare (Palme et al. 2002), and by the end of the study period they had therefore come to constitute a larger proportion of the low-income group than they did at the beginning. Since these groups are exposed to crime more often than others, this should be taken into consideration in the context of a study examining changes in the differential risk of victimization. We will therefore turn to multivariate analyses in order to study in more detail the question of victimization risks and how these differ and have changed over time. This strategy offers the advantage of being able to control for differences in the composition of the groups examined and for the effects of other factors of importance to the question of victimization. In order to study differences in risk and changes in the extent of such differences, we have chosen to make use of logistic regression models (Menard 1995). The results are presented in the form of odds ratios. The models include controls for age, gender, country of birth (inside or outside Sweden) and family type (single, single parent, and cohabiting with and without children, respectively). Age is included in the models as a continuous variable, whereas all other variables are treated as categorical.

Table 4 presents differences in the risk of exposure to violence and to theft once controls have been introduced for differences in group composition (complete tables of results are presented in Table 5 in the Appendix). The analyses are conducted separately for each two-year period. The regression models are employed to study two issues: on the one hand the differences between different groups in the risk of victimization, and on the other whether changes have occurred between the groups in their relative risk of exposure to crime. Having controlled for group composition, it can be noted that the differences in levels of risk of exposure to violence (Table 4, models A-D) become smaller, as we would expect since we have now taken into consideration the fact that the poorest group is to a larger extent comprised of youths, single parents and persons born abroad, all of whom are exposed to higher levels of threatening behaviour and violence than are the remainder of the population (Nilsson and Estrada 2003). As regards the trend in the inequality of victimization over time, the picture presented above of an increasing polarization between rich and poor is confirmed. At the beginning of the period under study rich and poor are subject to a similar victimization risk, whereas by the conclusion of the period the poor become subject to a significant excess risk. The differences in the victimization risk are particularly clear in relation to serious violence and violence

Table 4 Risk of exposure to violent and theft offences after controlling for compositional effects, 20–64 year-olds: Odds ratios using the rich as the reference category

Model	1984/5	1992/3	2000/1
Model A: Threatening behaviour or violence			
Poor	0.78	1.04	1.50**
Middle income	0.69**	0.93	1.22
Rich	1	1	1
Model B: Violence resulting in medical treatmen			
Poor	1.30	0.96	4.53***
Middle income	1.47	0.85	2.80*
Rich	1	1	1
Model C: Threatening behaviour/violence in the home			
Poor	1.54	2.02*	3.41***
Middle income	0.95	1.38	2.19*
Rich	1	1	1
Model D: Threatening behaviour/violence out of doors			
Poor	1.18	0.99	1.93**
Middle income	0.92	0.95	1.19
Rich	1	1	1
Model E: Threatening behaviour/violence at work			
Poor	0.24***	0.52**	0.75
Middle income	0.47***	0.63**	1.17
Rich	1	1	1
Model F: Theft/vandalism dwelling			
Poor	0.92	0.96	1.20
Middle income	1.02	0.83	0.99
Rich	1	1	1
Model G: Theft/vandalism vehicle			
Poor	0.77**	0.60***	0.87
Middle income	0.80**	0.71***	0.92
Rich	1	1	1
N	9841	8883	8587

^{*} *p* < .10; ** *p* < .05; *** *p* < .01

Notes: The models include controls for age, gender, country of birth and family type.

in the home. The exception to this pattern is found in relation to violence at work (model E), where the risk of exposure among the poor was substantially lower than it was among the rich at the beginning of the study period, but no significant differences remain between the two groups at the end of the period. As has been seen above, this evening-out is primarily the result of an increase in the level of victimization among the poor and not, which would of course have been a more positive development, of a

reduction in levels of exposure among the rich to the levels experienced by the poor during the mid-1980s.

Exposure to theft and vandalism offences (models F–G) is measured in relation to households, and thus controls for household composition are particularly important. The results show that no significant differences between rich and poor remain in relation to dwelling-related theft and vandalism once controls are included for household composition. At the beginning of the study period, the rich are at greater risk of exposure to vehicle-related offences, but, by its conclusion, no significant differences remain.

As regards the remainder of the independent variables – age, country of birth, gender, family type – the differences in levels of risk are generally more stable over time (see Table 5 in the Appendix). A comparison indicates that it is not the economic resources variable that distinguishes the greatest differences in levels of risk, but rather family type. The high levels of victimization experienced by single parents (a group almost exclusively composed of single mothers) are particularly marked.⁴

No controls have been included in models F and G in Table 4 for the availability of attractive objects for theft. The risk of exposure to vehicle theft is of course dependent on whether or not a household owns cars, motorcycles, bicycles, etc. In this regard, too, there are differences between rich and poor. Of the households categorized as rich, for example, 95 percent have access to a car, whereas the corresponding figure among the poor is 69 percent. In the context of this study of the distribution of victimization, however, we have chosen not to include controls for the availability of objects that involve a risk of being stolen or vandalized. This is owing in part to the fact that our ability to do so is limited, and in part to the fact that we have chosen to focus on victimization per se. It may be noted that similar arguments could be applied in relation to exposure to violence. Those who do not go out at night, as a result of fear or for some other reason, run less risk of being exposed to violence out of doors. Similarly, in order to be exposed to work-related violence, one has to have a job. Another factor that the models do not take into consideration and that may be of significance to the trends noted and the differences between the groups is that of access to security devices of various kinds (Hope

⁴ We have also conducted a study specifically focusing on the high levels of risk of victimization experienced by single mothers (Estrada and Nilsson 2004). This shows that differences in levels of exposure to violence, both within the group of single mothers and between this group and other women, are primarily related to levels of individual welfare resources. Tseloni (2005) notes the high level of exposure to theft offences experienced by this group. On the basis of British data, Tseloni's study shows that the highest correlation found with property crimes is that among lone parents as a result of their social vulnerability.

2001). This is an area that has witnessed rapid developments during the period covered by the study. Also, since the installation of electronic locks, alarms and so forth involves costs, it is reasonable to assume that in this regard too there will be differences between poor and rich. Quite simply, resources are required to 'buy ourselves out of risk and into security' (Hope 2001: 193).

Conclusion

Annual victim surveys asking a representative sample of the population about their exposure to violent and theft offences have been conducted in Sweden since 1978. Traditionally, victim surveys of this kind have been employed either to describe general trends in victimization within the population at large, or to illuminate differences in the levels of victimization risk experienced by different groups at a given point in time. Significantly less research has to date focused on trends over time in the levels of victimization of different social groups. This article has examined trends in what we have chosen to refer to as the inequality of victimization. The central issue has been whether increased income inequalities and differences in living conditions are reflected in an increased inequality in relation to victimization. Since we have been able to distinguish between different offence types, it is also possible to specify whether these trends are general or are primarily associated with changes in patterns of exposure to one particular type of crime.

The Swedish victim surveys show no continual or substantial increase in levels of exposure to crime within the population as a whole. By analysing trends based on data from six years of the Swedish victim surveys covering the period 1984–2001, years that are also representative of different phases of the economic cycle in Swedish society, we have been able to examine whether this general trend conceals distinctive developmental patterns within different segments of the population.

Our study shows that exposure to violence and theft has followed different trends for groups characterized by high and low levels of resources, respectively. The proportion exposed first and foremost to threatening behaviour and violence, but to some extent also to dwelling-related theft offences, is significantly greater among the poor than among the rich. Furthermore, the size of the difference involved has increased. Whereas those on middle and particularly high incomes have experienced a stabilization in relation to their exposure to violence and dwelling-related thefts, levels of victimization have continued to increase among the poor.

This increased concentration of the incidence of crime within the most poorly resourced segment of society is in part explained by changes in the composition of the groups examined. During the period covered by the study, the poorest segment of the population has come increasingly to be composed of demographic groups with a higher victimization risk. Even given controls for group composition, however, the principal pattern remains the same: increased risks of exposure to crime among the poor and more stable or reduced levels of risk among the rich. When controls for group composition are introduced, the significant excess risk of exposure to violence among the poor is not noted until the end of the study period. This is not the case in relation to work-related violence, however, where the rich are at greater risk of exposure at the beginning of the period, whereas by the end of the period no significant differences remain between the groups examined. Thus levels of exposure to work-related violence have evened out, primarily as a result of an increase in these levels among the poor. A similar trend, also involving this negative form of evening-out, is found in relation to household exposure to vehicle-related theft and vandalism offences: an excess risk among the rich at the beginning of the study period and no significant differences between rich and poor at the end. Once controls are included for compositional factors, there are no significant differences in levels of household exposure to dwelling-related crime.

These results should be viewed against the background of a trend of increasingly marked differences in society at large in standards of living between different social groups. An increase in levels of income inequality and growing differences in living conditions are also reflected in a negative evening-out of differences in the area of criminal victimization. Thus greater inequalities in income and in differences relating to living conditions are reflected in increased inequalities or in a negative evening-out in relation to levels of victimization. This has led to groups that are already characterized by low levels of resources having to bear a larger part of the burden associated with the crime problem. The fact that increased levels of inequality in other areas are also evident in relation to exposure to crime should be viewed against the background of what we already know about the correlations among various components of welfare. Problems or resource deficiencies in various areas that are central to human welfare tend to be associated with one another.

The differences in levels of exposure to crime between rich and poor are found among both men and women. Furthermore, the inequalities are particularly pronounced in relation to more serious forms of victimization. In this regard, the findings contradict research claiming that there is no correlation between levels of social and economic resources and exposure to violence among women (Council of Europe 2002). We have, in addition,

been able to provide evidence of a trend towards increased levels of inequality in victimization: the extent of the differences has increased over recent years to the detriment of those men and women experiencing the greatest levels of victimization.

One area that has not been taken up in this article, but that we feel is an important one for study, is that of the consequences of victimization. In addition to the direct harms caused by victimization, there are also other consequences. These may include periods of sick leave following exposure to violence, or a financial loss in relation to theft and vandalism offences. Here there is also reason to assume the existence of differences between groups characterized by high and low levels of resources respectively. Stated simply, we may assume that the consequences of exposure to crime will differ depending on the victim's level of access to resources. The economic consequences of exposure to theft or vandalism offences, for example, are dependent on whether or not the property involved has been insured. We also know that the poor more often lack insurance cover than the rich.

One limitation of the current study is that our analyses have been based exclusively on data at the level of the individual. In order to approach the question of the mechanisms underlying the unequal trends in victimization, it would be beneficial to include neighbourhood-level data in the analyses. In order to conduct a more detailed study of the question of concentration effects, individual victimization ought to be viewed in relation to both individual characteristics and factors characterizing the individual's social context (Sampson et al. 2002). Since we have now been given the opportunity of adding neighbourhood-level data to the individual-based survey data, we are looking forward to examining these issues in future studies.

Appendix

Table 5 Risk of exposure to violence and theft after controlling for compositional effects: Odds ratios, reference category in parentheses

Model	1984/5	1992/3	2000/1
Model A: Threatening behaviour or violence			
Age	0.95***	0.96***	0.97***
Gender (Women) Man	1.30***	1.35***	1.23**
Country of origin (Sweden) Other country	1.65***	1.30**	0.99

Table 5 Continued

Model	1984/5	1992/3	2000/1
Family type (Cohabiting partners with children)			
Cohabiting without children	1.42**	1.38***	1.26**
Single	2.68***	2.25***	2.17***
Single parent	3.71***	3.43***	2.98***
Economic resources (Rich)			
Poor	0.78	1.04	1.50**
Middle income	0.69**	0.93	1.22
Constant	0.22***	0.19***	0.16***
N	9843	8884	8589
Model B: Violence resulting in medical treatment			
Age	0.94***	0.96***	0.96***
Gender (Women)	0.51	0.50	0.70
Man	1.56*	2.06***	2.59***
Country of origin (Sweden)	1.50	2.00	2.37
Other country	2.42***	1.33	1.43
Family type (Cohabiting partners with children)	2.12	1.33	1.13
Cohabiting/married	0.92	1.50	1.88*
Single	2.91***	2.55***	2.21**
Single parent	5.92***	7.11***	5.58***
Economic resources (Rich)	3.72	7.11	3.30
Poor	1.30	0.96	4.53***
Middle income	1.47	0.85	2.80*
Constant	0.02***	0.03	0.01***
N	9841	8884	8593
	7011	0001	0373
Model C: Threatening behaviour/violence in the home			
Age	0.97***	0.98***	0.98***
Gender (Women)			
Man	0.58***	0.62**	0.70**
Country of origin (Sweden)			
Other country	1.84**	1.79***	1.60**
Family type (Cohabiting partners with children)			
Cohabiting/married	2.35***	1.74**	1.00
Single	4.21***	3.05***	3.33***
Single parent	10.10***	8.46***	7.22***
Economic resources (Rich)			
Poor	1.54	2.02*	3.41***
Middle income	0.95	1.38	2.19*
Constant	0.02***	0.01***	0.01***
N	9843	8884	8593
Model D: Threatening behaviour/violence out of doors			
5	0.94***	0.95***	0.95***
Age Condor (Momon)	0.74	0.73	0.73
Gender (Women)	2 05***	2 24***) 7 <i>[</i> ***
Man	2.05***	2.34***	2.75***

Table 5 Continued

	1984/5	1992/3	2000/1
Country of origin (Sweden)			
Other country	1.63**	1.23	0.78
Family type (Cohabiting partners with children)			
Cohabiting/married	1.79**	1.74***	1.96***
Single	2.73**	1.54	3.29***
Single parent	4.56***	298***	3.37***
Economic resources (Rich)			
Poor	1.18	0.99	1.93***
Middle income	0.92	0.95	1.19
Constant	0.72***	0.09***	0.05***
N	9843	8884	8593
Model E: Threatening habaviour/violence at work			
Model E: Threatening behaviour/violence at work Age	0.97***	0.97***	0.98***
Gender (Women)	0.57	0.97	0.96
Man	1.24	0.93	0.78*
Country of origin (Sweden)	1.27	0.73	0.70
Other country	1.35	0.88	0.93
Family type (Cohabiting partners with children)	1.55	0.00	0.73
Cohabiting/married	0.96	0.94	0.92
Single	0.89	1.03	0.97
Single parent	1.66	1.60	1.56*
Economic resources (Rich)	1.00	1.00	1.50
Poor	0.24***	0.52**	0.75
Middle income	0.47***	0.63**	1.17
Constant	0.10***	0.11***	0.07***
N	9843	8884	8593
Model F: Theft/vandalism dwelling			
Age	0.99	0.99***	0.98***
Gender (Women)			
Man	0.99	0.96	1.14
Country of origin (Sweden)			
Other country	1.72***	1.76***	1.60***
Family type (Cohabiting partners with children)			
Cohabiting/married	1.12	1.11	1.16
Single	1.50***	1.36***	1.28**
Single parent	2.03***	1.85***	1.53**
Economic resources (Rich)	0.00	0.01	4.00
Poor	0.92	0.96	1.20
Middle income	1.02	0.83	0.99
Constant	0.05***	0.10***	0.11***
N	9841	8883	8587
Model G: Theft/vandalism vehicle (aged 20–64 only)			
Age	0.97***	0.97***	0.97***
•			

T 1 1		c
Tabl	e 5	Continued

Model	1984/5	1992/3	2000/1
Gender (Woman)			
Man	1.23***	1.08	1.13**
Country of origin (Sweden)			
Other country	1.22**	1.11	1.07
Family type (Cohabiting partners with children)			
Cohabiting/married	0.97	0.81***	0.93
Single	0.89	0.84**	0.72***
Single parent	1.49***	1.59***	1.01
Economic resources (Rich)			
Poor	0.77**	0.60***	0.87
Middle income	0.80**	0.71***	0.92
Constant	0.69***	1.09	0.81
N	9841	8883	8587
N	9841	8883	858

^{*} *p* < .10; ** *p* < .05; *** *p* < .01

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