



**New evidence on the non-monetary cost of
crime based on within-community variation in
victimization risks**

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**New evidence on the non-monetary cost of crime based on within-community
variation in victimization risks**

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Abstract:

This paper uses variation in victimization probabilities and past victimization between individuals living in the same community to shed new light on the costs of crime. I use data from the Mexican Family Life Survey for 2005 and look at the impact of within-community differences in victimization risk on changes in behaviour, well-being and social capital and trust. My results indicate that both past victimization and a high subjective victimization probability lead to adjustments of behaviour, including individuals arming themselves, lower well-being and mental health and lower stated trust in other individuals and a higher stated likelihood to commit crimes.

Keywords: cost of crime, victimization, social capital

JEL Classification: H40, I10, J22, K42, R23, R28

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All analyses used Stata 11.1. Do-Files are available from the author on request. All analyses and opinions expressed in this paper as well as any possible errors are under the sole responsibility of the author.

I. Introduction

Numerous papers have been concerned with estimating the cost of crime for society. Examples include willingness to pay studies for the avoidance of victimization (e.g., Cohen et al., 2004) or the calculation of compensating differentials for regional crime rates in either wages or house prices as predicted by models by Roback (1982,1988), who also provides some evidence. Other examples in the latter group include, inter alia, Gerking and Neirick (1983), Blomquist et al. (1988), Smith (2005), Schmidt and Courant (2006) and Braakmann (2009) for wages and Bowes and Ihlanfeldt (2001), Lynch and Rasmussen (2001) and Gibbons (2004) for house prices.

This paper is related to the second group of studies in using data on actual behaviour to look at some of the non-monetary costs of crime, i.e., on well-being and symptoms of depression, on behavioural changes and on individuals' trust. It also goes beyond using regional crime rates as a proxy for individual victimization risks by looking at (a) actual past victimization and (b) subjective assessments of future victimization. Specifically, I use information on whether a person has ever been assaulted or robbed in its life and on a subjective assessment of the probability of falling victim to a crime within the next year. Looking at both actual victimization and subjective assessments of victimization risks also allows for an evaluation of whether the costs of crime are confined to the actual victims of criminal activities or whether there is a negative externality of crime by affecting individuals other than those victimized. As we will see, the results generally suggest that subjective beliefs about victimization and actual victimization have separate, although often very similar influence on the outcomes.

Using individual victimization data has a number of advantages over the classical approach of using regional crime rates as a proxy for victimization risk. The first advantage is that individual victimization risks are likely to differ from regional crime rates, i.e., the

average victimization risk in a region, even for individuals living in the same region. Contrast, for example, the risk of falling victim to an assault on the street for a fragile 75-year-old, 1.65m, 60kg man with the same risk for a 25-year-old, 2.00m, 150kg member of the Hells Angels or that for a beautiful 25-year-old women who likes to got out in the evening. Obviously, even though they might live in the same region, their victimization risks will differ considerably due to different lifestyles, different physical appearances and differences in their ability to fend off eventual attackers. Importantly, we would expect the indicators of subjective victimization risk to be different between these individuals, too, reflecting these differences.

The second advantage is that using differences in victimization risks between individuals living in the same region allows for a flexible control of regional factors influencing both the respective outcome and crime rates by regional fixed effects (or regional-time fixed effects in the case of longitudinal data). Unobserved regional factors, e.g., negative economic shocks, influencing both the outcome, e.g., wages or rents, and crime rates are usually a major concern in studies of the economic consequences of crime as the canonical economic model of crime (Becker, 1968) predicts a negative relationship between economic opportunities in legal employment and an individual's propensity to engage in crime (see, e.g., Gould et al., 2002, for recent evidence and Piehl, 1998, and Freeman, 1999, for surveys). Exploiting within-region differences in victimization risks combined with regional fixed effects flexibly controls for these factors without the need for extensive regional controls as in Bowes and Ihlanfeldt (2001) or Braakmann (2009), natural experiments as in Smith (2005) or instrumental variables as in Gibbons (2004).

A potential disadvantage of this approach is – depending on the outcomes of interest – a higher risk of simultaneity bias. While one can make a point that regional crime rates are uninfluenced by a specific individual's behaviour, so that regional shocks are the main worry,

the same does not hold for individual risks. If, for example, a positive relationship is found between individual wages and regional crime rates while (convincingly) controlling for the regional economic situation this finding can be plausibly interpreted as a compensating wage differential. If the same relationship were found for individual wages and individual victimization risks an equally plausible interpretation would be that richer people are more likely to get robbed. In this paper, however, I look at outcomes where reverse causality is less of an issue.

Another potential criticism is that subjective believes about victimization risks may differ from the “true”, objective risk of victimization. While this argument has some merit, it is important to realize that (a) most individuals probably will not know their true victimization risk and consequently have no choice but to act on their believes and (b) given the usual level of underreporting of criminal activities, which might very well differ between regions, it is not clear whether reported crime rates represent true victimization risks any better than subjective believes. In fact, Hamermesh (1999, p. 315) points out that fear of crime is more relevant to individual behavior than regional crime rates and should consequently be preferred. Furthermore, the results of this paper show that using subjective believes about victimization risks and indicators of actual victimization generally yield qualitatively similar results, although both actual victimization and individual believes matter for behaviour. This finding also points towards a negative externality of criminal activities, as fear of crime affects a greater number of people than actual victimization. Auxiliary not reported results also show very similar results for fear of crime (instead of victimization probabilities) and in estimations omitting the county fixed effects for regional, qualitative information on crime rates.

The data used in this paper comes from the 2005 wave of the Mexican Family Life Survey. One of the main advantages of this data – apart from containing quite unique

information on individual victimization risks and potential outcome variables – is that crime is a major factor in Mexico, even before the recent conflict between the state and the drug cartels began: Roughly one quarter of the sample considers it likely to be robbed or assaulted during the next year and about 7% have ever been robbed or assaulted. This situation is very different from many industrialized countries, like Germany (see Braakmann, 2009) or the UK (see Gibbons, 2004), which are usually more or less safe, and makes it more likely to actually observe any changes in behavior. This fact also means that this paper contributes to our knowledge on the costs of crime in situations where the risks are quite high.

I consider three broad groups of outcomes. The first group are behavioral choices made by the individual to minimize the risk of falling victim to a crime. These include going out less frequently, stop carrying valuables, start carrying a weapon, or changing routes or methods of transport. This part of the analysis is in the spirit of Hamermesh (1999) who studied the relationship between crime-rates and time allocation, in particular work patterns, and found the associated indirect costs of crime to be quite sizeable. The outcomes used in this part of the paper can be interpreted as non-monetary costs in the sense that victimization risks impose a constraint on behavior by the respective individual leading it away from its preferred (optimal) choice.¹ Unsurprisingly, the results here generally indicate that victimization risks alter behavior in the way one would expect, i.e., individuals alter their routes and methods of transportation, go out less frequently and stop carrying valuable items.

¹ As stressed by Hamermesh (1999) actions taken by individuals to protect themselves against victimization risks may also lead to external effects for other individuals, see Ayres and Levitt (1998) for an example of positive externalities. In my case, external effects seem particularly likely with respect to individuals arming themselves. An evaluation of these external effects, however, is not possible with the available data.

Somewhat more worrisome, it also increases the likelihood of people arming themselves by a non-trivial amount, thus increasing the risk of future violence.

The second group of outcomes is related to psychological costs. Specifically, I look at an individual's general outlook on life and its expectations, problems with sleeping and several indicators of depression, like frequent feelings of fear. The results here indicate that victimization risks have considerable psychological costs. These results are in line with earlier results for South Africa by Powdthavee (2005), who looked at the life-satisfaction consequences of individual victimization.

The third and final group of outcomes are indicators of trust and individual legal/illegal behavior. These are potentially important as a number of papers suggest that lower levels of social capital and/or trust have important, adverse consequences on the economy (e.g., Putnam, 1993; Knack and Keefer, 1997; Guiso et al., 2004, 2007; Algan and Cahuc, 2010; Tabellini, 2008, 2010). This part of the analysis connects to a recent literature on the determinants of individual preferences and attitudes (see, e.g., the theoretical models in Bisin and Verdier, 2000, and Bisin et al., 2004, and Dohmen et al., 2011, for recent evidence). The crucial part here is that crime might be contagious if it lowers individuals' trust in political institutions or the police or if changes their likelihood to engage in criminal activities, all of which might translate back into even higher crime rates (see, e.g., Keizer et al., 2008, for recent evidence).² Here, I find that higher risks of victimization tend to increase an individual's (stated) likelihood not to return lost wallets and undermine the individual's trust that people around it would do so. Higher victimizations risks also increase the likelihood of individuals agreeing with the statement "cheating is necessary to get ahead" and "laws are made to be broken", although the latter is borderline insignificant. Despite these

² A version of this argument is the famous "Broken Window" theory (Wilson and Keeling, 1982), where vandalism and petty crime translate back into higher crime levels.

finding, they apparently do not change an individual's self-perception as a trustworthy being, possibly due to changes in the reference point that determines what "trustworthy" is. In other words, there is some evidence that crime is contagious and undermines trust in other individuals.

The rest of the paper is organized as follows: Section 2 describes the data used. Section 3 looks at the determinants of victimization risks, Section 4 on the consequences of these risks. Section 5 concludes.

II. Data

I use data from the 2005 wave of the Mexican Family Life Survey.³ The survey was conducted by researchers of the University Iberoamericana (UIA), the Center of Economic Research and Teaching (CIDE: *Centro de Investigación y Docencia Económicas*), the National Institute of Public Health (INSP: *Instituto Nacional de Salud Pública*), and the University of California, Los Angeles (UCLA) during 2006. All data relates to the year 2005. Note that I ignore the first wave from 2002, as key outcomes such as trust were not covered in that wave. The data cover approximately 40,000 individuals from roughly 8,400 households throughout Mexico. Crucially it also contains more than one household per community, which enables me to use community fixed effects. Communities range from small villages to cities and cover both urban and rural areas.

In this paper I focus on adult respondents – defined as being 14 years of age or older – as several key variables, including victimization risks, are missing for children. The final sample used in the estimations consists of 12,507 individuals from 150 communities. Communities contain between 12 and 626 individuals with an average of 83.4. Major reductions in the sample size from the original roughly 40,000 individuals occur due to the

³ Data and documentation are available at <http://www.ennvih-mxfls.org/>.

restriction to adult individuals and because one control variable, an IQ-test, is missing for 7,336 individuals. However, all results are qualitatively identical when dropping this control variable and using these observations.

Victimization risks are measured by two dummy variables. The first indicates whether an individual considers it likely or very likely to be robbed or assaulted within the next year. In other words, it captures an individual's expectation regarding its victimization risk. The second measure is a dummy variable indicating whether an individual has ever been assaulted, robbed or attacked in the past. This second variable was also used by Powdthavee (2005) in his study of the life-satisfaction effects of victimization in South Africa. About 7% of the individuals in the sample have been victimized with 1.5% experiencing more than one assault. There are also a number of other potential variables that can be used to proxy victimization risks, in particular fear of crime during the day and during the night. Using these instead of the subjective likelihood of victimization yields very similar results. However, an individual's assessment of the likelihood of victimization is probably better suited to proxy victimization risk as it is usually understood in the literature as it involves less judgment regarding personal feelings than the questions regarding fear for crime.

Changes in behavior are measured by a two dummies indicating whether an individual goes out less frequently at night and carries valuables less frequently than 5 years ago, two dummies indicating whether an individual changes methods or routes of transport for security reasons and a dummy indicating whether an individual carries a weapon.

Psychological costs of victimization risks are measured by a number of questions related to specific symptoms of depression, specifically, feelings of depression, feelings of constant fear and sleep problems. The latter are taken directly from a questionnaire used to diagnose clinical depression (see Calderon, 1997). Furthermore I also use the number of hours spent sleeping each night and two questions capturing an individual's general

assessment and expectation of life, specifically whether an individual thinks life is worse than three years ago and whether life will become worse in the next three years.

Finally, I use several indicators of social capital and trust. The first set of indicators are two assessments by the respective individual of the likelihood to steal electricity and of the likelihood not to return a wallet containing 500 Pesos found on the street. I also use individual agreement to the statements “Cheating is necessary to get ahead in life” and “Laws are made to be broken”, which capture an individual’s willingness to act according to the law. An individual’s self-perception with respect to trust is captured by agreement to the question “Are you trustworthy?” Trust in others is measured by responses to a question about the likelihood of getting a lost wallet with 200 Pesos in it returned if the wallet was found by a person living close to the individual, a policeman and a stranger.

From the data I also take a large number of standard socio-economic controls on education, marital status, children, labor force status and income. I also use a measure of intelligence based on the Raven test. This measure is simply the share of correct answers in the test, ranging from 0 to 100.

(TABLE 1 ABOUT HERE.)

Table 1 contains descriptive statistics for all variables. Note that there are a considerable number of individuals who consider it likely to be victimized or have been victimized in the past: 26% of all individuals in the sample consider it likely to become victim of a crime within a year and 7% have become a victim in the past. The fact that more people consider victimization likely than actually experience it is not unusual and often found in the literature (e.g., Dominitz and Manski, 1997).

III. What determines victimization risk?

In the first step, I provide some evidence that the measures of victimization risk used here make sense, i.e., that they vary over socio-demographic characteristics in a sensible way. I also look into possible differences in the factors influencing subjective assessments of victimization risks and past victimization. To test for these possibilities, I run Probit regressions of the form

$$v_{ic} = 1\{X_i'\beta + \eta_c + \varepsilon_{ic} > 0\}, \quad (1)$$

where v_{ic} is the respective measure of victimization of individual i in community c , $1\{.\}$ is the indicator function, X_i contains the socio-demographic characteristics described above as well as a constant, η_c is a community fixed effect and ε_{ic} is a standard error term. Standard errors are adjusted for clustering on the community level.

(TABLE 2 ABOUT HERE.)

Results can be found in Table 2. Subjective victimization risks increase in education, are higher for married individuals, for individuals with children, for the self-employed and for individuals who go out or carry valuables frequently. They are lower for men and people looking for work or in other labor force states. The probability of having ever been victimized in turn increases with age and education, is higher for men, the self-employed, retired individuals and again for those who go out or carry valuables frequently. It is lower for those in education and in other labor force states.

Overall, these estimates seem fairly sensible: The higher risk for the self-employed is probably related to small, owner-led businesses being more likely to be robbed than larger factories or offices that tend to employ a greater share of the non-self-employed. The observation that individuals who are more likely to go out at night and who tend to carry

valuables more frequently are more likely to be victimized is intuitively plausible. Note that the coefficients of these two variables are likely to be biased downward as we would expect individuals with a high victimization risk to reduce these activities (see also Section 3).

More interesting are the cases where we observe a difference between subjective victimization risk and actual victimization. First, men seem to systemically underestimate their risk of victimization, which might be related to their often-documented higher risk tolerance. Second, having a family, either in the form of a spouse or of children, seems to increase subjective risk assessments. This fact might be related by altruism and other regarding preferences in the family, if, e.g., individuals start to consider the risk of their family jointly with their own risk. It seems, however, fairly plausible from everyday experience.

IV. The consequences of individual victimization risk

A. General approach

To test for the costs of victimizations risks I run a series of Probit and OLS regressions of the general form $y_{ic} = 1\{X_i'\beta + \tau^* v_{ic} + \eta_c + \varepsilon_{ic} > 0\}$ for binary outcomes and $y_{ic} = X_i'\beta + \tau^* v_{ic} + \eta_c + \varepsilon_{ic}$ for continuous ones. y_{ic} is the respective outcome for individual i in community c , X_i contains the socio-demographic characteristics used in equation (1) as well as a constant, η_c is a community fixed effect and ε_{ic} is a standard error term. The coefficient of interest is τ (resp. its marginal effect), which gives the effect of the respective victimization measure v_{ic} on the outcome. Standard errors are adjusted for clustering on the community level. As running these regressions separately for men and women did not change the results, all reported results are for the whole sample and control for gender.

I first estimate these models using only the subjective victimization risk (specification I) or past victimization (specification II). In a second step, I then use both measures of

victimization risk jointly (specification III). The latter estimates can be used to shed light on the question whether the costs of crime are only borne by the actual victims or whether there is some external cost on other individuals. This distinction cannot be made using regional crime rates where it is usually unknown whether a particular individual was victimized.

The effects of victimization risks are identified using within-region variation in v_{ic} . Importantly, as I use data from a single cross-section the community fixed effects η_c capture all regional conditions that are a large concern when using regional crime rates. There are, however, still two main worries for a causal interpretation of τ .

The first is reverse causality. As already mentioned in the introduction, this is usually less of a concern when using regional crime data, as the feedback from a specific individual to the regional crime rate is weaker than in the case of individual risk. Consider for instance the case of wages. In a wage regression using regional crime rates and controlling convincingly for regional economic shocks and individual characteristics, the coefficient for the crime rates can be reasonably interpreted as a compensating wage differential. The same relationship for individual wages and individual victimization risks, however, could arise simply because richer individuals are more likely to get robbed. In the context of this paper, reverse causality is probably less of an issue due to the nature of most outcome variables. Where necessary, its consequences will be discussed along with the results.

A second concern is unobserved heterogeneity. A prime candidate here is related to cognitive ability, which can be expected to influence the perception of victimization risks and which is also likely to influence most outcomes. To control for this I use a simple measure of IQ based on the often-used Raven test as well as the other control variables. Interestingly, the

results barely change for various sets of control variables, which suggests that unobserved heterogeneity might not be a big problem in this case.⁴

B. Individual behavior

Table 3 presents average marginal effects from Probit regressions. The results show considerable changes in behavior due to individual differences in victimization risk: A high subjective victimization risk goes hand in hand with a 3% higher probability to go out less, a 4% higher probability to have altered transportation methods, a 7% higher probability to have altered transportation routes and a 1% higher probability to carry a weapon. Past victimization experiences generally lead to bigger effects that are about 1.5 to 2 times as large as the effects found for subjective victimization risks. The results in column III show almost identical point estimates for both variables suggesting that both past victimization and a high subjective victimization risk have separate influences on behavior. Note that reverse causality could be an issue here if individuals already adjusted their behavior to reduce victimization risks. However, such adjustments would only bias the estimates downward, which would still allow an interpretation of the results as lower bounds.

(TABLE 3 ABOUT HERE.)

Taken together, there seem to be highly significant and more importantly economically large changes in behavior due to victimization risks. Similar to the findings by Hamermesh (1999), the results show that individuals adapt their time allocation and other behavior in response to victimization risks. The welfare consequences of these changes are

⁴ Note that exploiting the panel structure of the data by additionally using the 2002 wave is not possible as several key variables, e.g., the measures of trust, are missing in 2002.

not easily calculated as it is not clear (a) what value individuals place on going out in the evening or carrying valuables, (b) what discomfort the changes in transportation methods or routes bring (although there is evidence that longer commuting times lead to considerable welfare losses, see Stutzer and Frey, 2008) and (c) what consequences the increasing share of individuals carrying weapons has for further increases in violence. However, it is in general possible to say that the welfare effects will be negative as individuals are forced to give up behavior they would otherwise have engaged in, consequently leading them away from their preferred consumption bundle.

C. Well-being and mental health

Table 4 presents results for a number of outcomes related to individual well-being and mental health. Previous evidence for South Africa by Powdthavee (2007) suggests that crime victims report a lower average life-satisfaction than non-victims. The results in table 4 are broadly in line with these earlier findings: Individuals with a high subjective victimization risk are 3% more likely to believe that life will become worse during the next three years, are 1.7% more likely to have frequent sleep problems, are 1.4% more likely to experience feelings of depression and are 1.5% more likely to experience frequent feelings of fear. Past victims are 2% more likely to state that their life has become worse during the last 3 years, they sleep on average 0.2 hours per night less than people who have not been victimized and they are 1.7% more likely to have problems sleeping and 1.4% more likely to have frequent feelings of fear. The point estimates are again relatively stable in column III relative to columns I and II, again suggesting that there are separate influences of actual victimization experiences and fear of crime. Note that reverse causality is unlikely to be an issue here.

(TABLE 4 ABOUT HERE.)

These results again suggest considerable individual welfare losses due to victimization risks. They also reinforce that the costs of crime are not only borne by the actual victims but also by people who feel at risk.

D. Social capital and trust

Table 5 presents results for the effects of victimization risks on indicators of social capital and trust. Of particular interest is the question whether victimization risks affect an individual's propensity to engage in criminal activities, i.e., whether crime is contagious as predicted by the "broken windows" theory and whether it undermines individual trust. Note that these results should be taken with a grain of salt as they give information about stated rather than observed behavior (see Glaeser et al., 2000, for a critical evaluation of survey based indicators of trust).

(TABLE 5 ABOUT HERE.)

With these caveats in mind, the evidence in Table 5 provides some evidence that both of these conjectures are true. High subjective victimization risks go hand in hand with a 3 percentage point lower probability to return a lost wallet and a 2.3 percentage point lower expectation to have a lost wallet returned if it was found by someone living nearby. There is also evidence that high subjective victimization risks make it more likely to agree to the statement that "cheating is necessary to get ahead in life" and that "laws are made to be broken", although the latter is borderline insignificant. Actual victimization experience only raises the probability not to return a found wallet and – strangely enough given this result – the likelihood that an individual considers itself to be a trustworthy person. The latter effect

could be related to changes in the reference point an individual uses to evaluate what “trustworthy” means. Reverse causality again appears unlikely to be an issue here given the nature of the outcome variables.

V. Conclusion

This paper provided evidence on some of the non-monetary costs of crime using data from Mexico, i.e., a country with a relatively severe crime problem. I exploited within-community differences in individual victimization risks and used community fixed effects to control for regional characteristics in a flexible way. I also considered the effects of both subjective beliefs about victimization risks and past victimization to shed light on the question whether the costs of crime are borne only by the actual victims or whether there is a negative externality on other individuals.

In broad terms the results suggest that both subjective beliefs and actual victimization have qualitatively similar, but separate effects on the outcomes. This finding means that the costs of crime are borne both by the actual victims and the wider society through welfare changes caused by the fear of crime. Both past victimization and a high subjective victimization probability lead to adjustments of behavior, including individuals arming themselves, lower well-being and mental health, e.g., frequent feelings of fear and sleep-problems, and, finally, lower stated trust in other individuals and a higher stated likelihood to commit illegal acts. This latter finding, although it needs to be interpreted carefully as the data does not contain information on actual criminal behavior, is in line with theories of crime being contagious.

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Table 1:*Descriptive statistics*

Variable	Mean	Standard deviation
Considers being robbed/assaulted within next year likely (1 = yes)	0.261	0.439
Ever robbed assaulted (1 = yes)	0.071	0.256
Age (years)	31.078	13.741
Male (1 = yes)	0.440	0.496
IQ (Raven index), 0-100	56.332	23.639
Highest education level elementary school (1 = yes)	0.324	0.468
Highest education level jr. high school (1 = yes)	0.330	0.470
Highest education level high school (1 = yes)	0.194	0.395
Highest education level college (1 = yes)	0.100	0.300
Married (1 = yes)	0.426	0.495
Has partner (1 = yes)	0.102	0.303
Had children (1 = yes)	0.425	0.494
Working (1 = yes)	0.467	0.499
Is self-employed/business owner (1 = yes)	0.079	0.269
Is looking for work (1 = yes)	0.037	0.188
Retired (1 = yes)	0.007	0.084
In education (1 = yes)	0.124	0.330
Other (1 = yes)	0.365	0.482
Income last year (1000 Pesos)	33.985	1195.6
Goes out frequently at night (1 = yes)	0.187	0.390
Carries valuables frequently (1 = yes)	0.078	0.268
Goes out less frequently at night than 5 years ago (1 = yes)	0.389	0.488
Carries valuables less frequently than 5 years ago (1 = yes)	0.450	0.498
Altered method of transport because of crime (1 = yes)	0.065	0.247
Altered transport routes because of crime (1 = yes)	0.077	0.267
Carries weapon (1 = yes)	0.009	0.095
Thinks life is worse than 3 years ago (1 = yes)	0.070	0.255
Thinks life will get worse in the next 3 years (1 = yes)	0.441	0.496
Hours of sleep per night (1 = yes)	7.899	1.266
Has problems sleeping at night during last 4 weeks (1 = yes)	0.038	0.191
Felt frequently pessimistic during last 4 weeks (1 = yes)	0.028	0.164
Felt fear frequently during last 4 weeks (1 = yes)	0.021	0.142
Frequently wished to die during last 4 weeks (1 = yes)	0.013	0.112
Probability of stealing electricity (1 = yes)	6.393	15.804
Probability of returning found wallet (1 = yes)	20.278	27.923
Probability lost wallet returned if found by someone living nearby (1 = yes)	23.888	27.671
Probability lost wallet returned if found by policeman (1 = yes)	12.424	21.091
Probability lost wallet returned if found by stranger (1 = yes)	6.531	15.712
Agrees: Laws are made to be broken (1 = yes)	0.179	0.383
Agrees: Cheating is necessary to get ahead in life (1 = yes)	0.209	0.406
Considers him/herself a trustworthy person (1 = yes)	0.947	0.223
Observations		12507

Table 2:*Determinants of victimization risk, Probit estimates*

	Considers being robbed/assaulted within next year likely		Ever robbed/assaulted	
	Coefficients	Average marginal effects	Coefficients	Average marginal effects
Age (years)	0.0032 (0.0066)	-0.0003 (0.0005)	0.0353*** (0.0107)	0.0010*** (0.0003)
Age (squared)	-0.0001 (0.0001)		-0.0004*** (0.0001)	
Male (1 = yes)	-0.1497*** (0.0330)	-0.0435*** (0.0096)	0.2431*** (0.0526)	0.0317*** (0.0065)
IQ (Raven test)	0.0010 (0.0010)	0.0003 (0.0003)	-0.0000 (0.0010)	-0.0000 (0.0001)
Highest education level elementary school (1 = yes)	0.0492 (0.0732)	0.0144 (0.0216)	0.0543 (0.1039)	0.0071 (0.0138)
Highest education level jr. high school (1 = yes)	0.1134 (0.0788)	0.0335 (0.0235)	0.1849* (0.1120)	0.0249 (0.0159)
Highest education level high school (1 = yes)	0.1493* (0.0866)	0.0448* (0.0265)	0.3521*** (0.1190)	0.0515*** (0.0196)
Highest education level college (1 = yes)	0.1777** (0.0892)	0.0540* (0.0281)	0.5219*** (0.1287)	0.0848*** (0.0261)
Married (1 = yes)	0.1293*** (0.0431)	0.0379*** (0.0126)	-0.0349 (0.0675)	-0.0045 (0.0086)
Has partner (1 = yes)	0.0604 (0.0585)	0.0179 (0.0175)	0.0563 (0.0694)	0.0075 (0.0095)
Has children (1 = yes)	0.0804** (0.0408)	0.0236** (0.0120)	-0.0586 (0.0606)	-0.0075 (0.0077)
Is self-employed/business owner (1 = yes)	0.1305** (0.0507)	0.0393** (0.0158)	0.1443** (0.0661)	0.0200** (0.0099)
Looking for work (1 = yes)	-0.1449* (0.0785)	-0.0407* (0.0211)	-0.1132 (0.1143)	-0.0137 (0.0128)
Retired (1 = yes)	0.1193 (0.1289)	0.0360 (0.0401)	0.4060** (0.1757)	0.0658* (0.0347)
In education (1 = yes)	0.0036 (0.0484)	0.0011 (0.0142)	-0.2883*** (0.0687)	-0.0327*** (0.0069)
Other labour force state (1 = yes)	-0.0668* (0.0381)	-0.0194* (0.0110)	-0.1838*** (0.0582)	-0.0228*** (0.0072)
Income last year (1000 Pesos)	0.0000 (0.0000)	0.0000 (0.0000)	-0.0003 (0.0004)	-0.0000 (0.0001)
Goes out frequently at night (1 = yes)	0.1159*** (0.0400)	0.0346*** (0.0122)	0.1234*** (0.0443)	0.0166*** (0.0063)
Carries valuables frequently (1 = yes)	0.2773*** (0.0814)	0.0863*** (0.0268)	0.2347*** (0.0611)	0.0340*** (0.0100)
Constant	-1.1194*** (0.1480)		-2.9990*** (0.2139)	
Observations (after dropping perfect predictor)	12457.0000	12457.0000	10687.0000	10687.0000

Coefficients, standard errors adjusted for clustering on the community level in parentheses.

*/**/*** denote statistical significance on the 10%, 5% and 1% level respectively. All specifications additionally include community fixed effects.

Table 3:*Victimization risk and behavior*

	(I)	(II)	(III)
	Goes out less frequently at night than 5 years ago (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0335** (0.0150)		0.0287* (0.0152)
Ever robbed/assaulted/attacked		0.0805*** (0.0164)	0.0749*** (0.0171)
	Carries valuables less frequently than 5 years ago (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0218 (0.0146)		0.0185 (0.0147)
Ever robbed/assaulted/attacked		0.0543*** (0.0189)	0.0508*** (0.0189)
	Altered method of transport because of crime (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0397*** (0.0080)		0.0351*** (0.0077)
Ever robbed/assaulted/attacked		0.0656*** (0.0109)	0.0567*** (0.0103)
	Altered route of travelling because of crime (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0680*** (0.0086)		0.0612*** (0.0082)
Ever robbed/assaulted/attacked		0.0956*** (0.0151)	0.0800*** (0.0140)
	Carries weapon (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0094*** (0.0034)		0.0081** (0.0032)
Ever robbed/assaulted/attacked		0.0155** (0.0079)	0.0134* (0.0075)
Observations	12507	12507	12507

Coefficients (OLS)/average marginal effects (Probit), standard errors adjusted for clustering on the community level in parentheses. */**/** denote statistical significance on the 10%, 5% and 1% level respectively. Control variables in all specifications are a gender dummy, age and age squared, IQ as measured by the Raven test, income, dummies for having completed elementary school, Jr. High School, High School and College with no schooling being the base alternative, dummies for being married, having a partner and having children and dummies for being self-employed, looking for work, retired, in school and being in other labor force statuses with working being the base alternative. All specifications additionally include community fixed effects.

Table 4:
Victimization risk, well-being and mental health

	(I)	(II)	(III)
	Thinks life is worse than 3 years ago (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0069 (0.0055)		0.0056 (0.0055)
Ever robbed/assaulted/attacked		0.0199* (0.0106)	0.0187* (0.0106)
	Thinks life will become worse in the next 3 years (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0299** (0.0145)		0.0289** (0.0140)
Ever robbed/assaulted/attacked		0.0217 (0.0257)	0.0163 (0.0247)
	Hours of sleep per night (OLS)		
High subjective likelihood of being assaulted within the next year	-0.0328 (0.0345)		-0.0226 (0.0350)
Ever robbed/assaulted/attacked		-0.1631*** (0.0478)	-0.1587*** (0.0484)
	Has problems sleeping at night during last 4 weeks (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0170*** (0.0061)		0.0160*** (0.0060)
Ever robbed/assaulted/attacked		0.0174** (0.0086)	0.0141* (0.0082)
	Felt frequently pessimistic during last 4 weeks (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0144** (0.0062)		0.0141** (0.0062)
Ever robbed/assaulted/attacked		0.0063 (0.0072)	0.0037 (0.0069)
	Felt fear frequently during last 4 weeks (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0146** (0.0061)		0.0140** (0.0060)
Ever robbed/assaulted/attacked		0.0137* (0.0079)	0.0113 (0.0073)
Observations	12507	12507	12507

Coefficients (OLS)/average marginal effects (Probit), standard errors adjusted for clustering on the community level in parentheses. */**/** denote statistical significance on the 10%, 5% and 1% level respectively. Control variables in all specifications are a gender dummy, age and age squared, IQ as measured by the Raven test, income, dummies for having completed elementary school, Jr. High School, High School and College with no schooling being the base alternative, dummies for being married, having a partner and having children and dummies for being self-employed, looking for work, retired, in school and being in other labor force statuses with working being the base alternative. All specifications additionally include community fixed effects.

Table 5:*Victimization risk, trust and social capital*

	(I)	(II)	(III)
	Probability of stealing electricity (OLS)		
High subjective likelihood of being assaulted within the next year	0.6989 (0.4876)		0.6951 (0.4847)
Ever robbed/assaulted/attacked		0.1922 (0.5349)	0.0587 (0.5202)
	Probability of not returning found wallet (OLS)		
High subjective likelihood of being assaulted within the next year	3.3230*** (0.7637)		3.1684*** (0.7777)
Ever robbed/assaulted/attacked		3.0014*** (0.9994)	2.3928** (1.0319)
	Probability lost wallet returned if found by someone living nearby (OLS)		
High subjective likelihood of being assaulted within the next year	-2.3425** (1.0026)		-2.3792** (0.9804)
Ever robbed/assaulted/attacked		0.1108 (1.2537)	0.5678 (1.1791)
	Probability lost wallet returned if found by policeman (OLS)		
High subjective likelihood of being assaulted within the next year	0.2392 (0.6656)		0.2383 (0.6621)
Ever robbed/assaulted/attacked		0.0603 (0.8145)	0.0145 (0.8014)
	Probability lost wallet returned if found by stranger (OLS)		
High subjective likelihood of being assaulted within the next year	0.0765 (0.5692)		0.0809 (0.5674)
Ever robbed/assaulted/attacked		-0.0516 (0.6166)	-0.0672 (0.6060)
	Agrees: Laws are made to be broken (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0160 (0.0100)		0.0160 (0.0101)
Ever robbed/assaulted/attacked		0.0020 (0.0120)	-0.0009 (0.0122)
	Agrees: Cheating is necessary to get ahead in life (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0221** (0.0106)		0.0222** (0.0107)
Ever robbed/assaulted/attacked		0.0023 (0.0131)	-0.0015 (0.0132)
	Considers him/herself a trustworthy person (Probit avg. marginal effect)		
High subjective likelihood of being assaulted within the next year	0.0024 (0.0052)		0.0017 (0.0052)
Ever robbed/assaulted/attacked		0.0145* (0.0087)	0.0143* (0.0086)
Observations	12507	12507	12507

Coefficients (OLS)/average marginal effects (Probit), standard errors adjusted for clustering

on the community level in parentheses. */**/** denote statistical significance on the 10%,

5% and 1% level respectively. Control variables in all specifications are a gender dummy,

age and age squared, IQ as measured by the Raven test, income, dummies for having completed elementary school, Jr. High School, High School and College with no schooling being the base alternative, dummies for being married, having a partner and having children and dummies for being self-employed, looking for work, retired, in school and being in other labor force statuses with working being the base alternative. All specifications additionally include community fixed effects.