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An Assessment of How Urban Crime and Victimization Affects Life Satisfaction

Por:
Carlos Medina
Jorge Andrés Tamayo

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An Assessment of How Urban Crime and Victimization Affects Life Satisfaction♦

Carlos Medina*
Jorge Andrés Tamayo**

Abstract

We assess the effect of the homicide rate, individual's perception of security in their neighborhood of residence, and of the effect of their having been victimized, on life satisfaction. We find a negative effect of the homicide rate on life satisfaction for the subsample of individuals living in their current houses for at least 10 years or more, who had moved to that place at some point in the past. We also find a positive and robust effect of the perception of security in the households' neighborhood for the whole sample, and for different subsamples considered. Having been victim of an offense is also robustly negatively related to life satisfaction, in particular in the cases where the offense was robbery.

Keywords: Quality of Life, Life Satisfaction, Crime
JEL Codes: I32, K40, K42

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* Regional Chief Economist, *Banco de la República*. cmedindu@banrep.gov.co
** Researcher, *Banco de la República*. jtamayca@banrep.gov.co

1. Introduction

The important rise in crime that took place since the Second World War has been quoted by Layard (2005) as the clearest failure of community life. As the author points out, the increase in crime in the United States and Britain goes beyond the usually argued poverty or inequality concerns, since as the crime increased, inequality and unemployment were decreasing. In the case of Colombia, the key authors that have maintained its high crime rates have been the guerrilla groups and the drug dealers. Drug trafficking has strengthened organized crime in the last several decades. In urban cities of Colombia, the influence of drug dealers is the most relevant force driving crime. They took over the domestic drugs market, and split it among them, with strict and enforceable boundaries within some neighborhoods of each of the main cities. Whenever there is disequilibrium in the forces among the groups controlling the market, a war among them takes place and crime rates abruptly increase, as it has been the case in the last few years.[1]

In this paper we assess the effect that crime, households' perception of security in the neighborhood they live, and individuals' victimization, have on quality of life conditions measured by the individuals' self perception, to which we also refer as *life satisfaction*. This approach complements previous estimates of the costs of crime in urban areas obtained by other means, either accounting their direct and indirect costs, or by means of empirical models like the hedonic model, which estimates the capitalization of crime on property values. By assessing whether these variables affect life satisfaction, we go beyond the market approach and are able to test whether each one of crime, neighborhood satisfaction and victimization, actually affects a much broader concept of quality of life, which is the obtained by collecting the individuals' perception.

Identifying the effect of the variables of interest on crime is not an easy task, since households sort endogenously across neighborhoods, accounting in that process for the levels of those variables in each of the potential neighborhoods they might move to, thus making it challenging to disentangle their actual effect. We exploit the large variation in the homicide rates between the different neighborhoods of Medellín, and a large data set with the census of its homicides during several years, to build homicide rates at the block level, and split the sample, in a way that allows us to get reasonable estimates of the effect of the homicide rate, individual's perception of security in their neighborhood of residence, and of the effect of their having been victimized, on life satisfaction. We control for a battery of socioeconomic variables at the household level, and fixed effects of the neighborhoods where the household currently and previously lived.

We find a negative effect of the homicide rate on life satisfaction for a subsample of individuals living in their current houses for at least 5 years or more, who had moved to that place at some point in the past. On the contrary, the arrest rates, defined as the ratio of captures to homicides at the block level, significantly increase life satisfaction. We also find a positive and robust effect of the perception of security in the households' neighborhood for the whole sample, and for each of the subsamples considered. Having

[1] See Information System for Security and Coexistence (2009).

been victim of an offense is also robustly negatively related to life satisfaction, in particular in the cases where the offense was robbery.

We present in the following section a brief review of relevant literature before proceeding to describe our data and key empirical regularities. We finally present our identification strategy and results, and provide the conclusions.

2. Previous Work

As it is stated by Di Tella et al. (2008) criminal victimization and well-being has been studied by psychologist and sociologist. In fact, psychologist and sociologist have studied the impact of different economic and social variables on life satisfaction. Sirgy and Cornwell (2002) present a complete review of studies that have analyzed the link between different neighborhood features and life satisfaction. They classify those features in three main aspects: physical, social and economic features of the neighborhood and analyzed how neighborhood features affect the quality of life[2]. They conclude that the answer is through the mediating effects of community satisfaction, housing satisfaction, and home satisfaction. Specifically, satisfaction with the neighborhood social features contributes significantly to one's overall feelings about community satisfaction. "These overall feelings about the community, in turn, play a significant role in life satisfaction" (Sirgy and Cornwell, 2002)[3]

Particularly, Ross and Jang (2000) stress similar conclusions. From a representative sample of 2482 Illinois residents collected by telephone in 1995, they conclude that "people who live in neighborhoods where they see a lot of disorder have significantly higher levels of both fear and mistrust than those who live in neighborhoods characterized by social control and order" (Ross and Jang, 2000). The stress of living in a place where the streets are dirty and dangerous takes its toll in feelings of depression and anxiety, and consequently in less well-being[4]. Latkin and Curry (2003) find a strong a positive association between perceived neighborhood characteristics and subsequent depressive symptoms. "The data also suggest that neighborhood and social disorganization is a powerful chronic stressor among inner-city population," (Latkin and Curry, 2003)[5].

Relevant issues in this topic are the possible predictors of perceived disorder in neighborhoods that at the end are connected with well-being perceptions. Franzini et al. (2008), for a neighborhood study for Baltimore, conclude that perceptions of disorder are

[2] For these three features they present a complete literature review, of studies that analyzed the impact of this features on life satisfaction.

[3] Diener et al. (1999) present a review for physiologist modern and past theories of subjective well-being

[4] Geis and Ross (1998), Ross et al. (2000), Cutrona et al. (2000), among others, obtain similar results. Scarbourough et al. (2010) studied the relationship between individual characteristic, neighborhood context, and fear of crime and find that relationship between demographic characteristics and fear of crime is conditions by neighborhood factors.

[5] This article mentioned a large literature that emphasize as social disorders in urban disadvantage neighborhoods, illicit drug use, drug purchasing and criminal activities.

associated with aspects of observed physical disorder (overall conditions of buildings and public spaces rather than the presence of trash and graffiti) and neighborhood structural compositions (economic disadvantage and violence). Similarly, Latkin et al. (2009) conclude that perceptions of neighborhood are based on objective factors, measured by police crime reports; individual's experiences, measured by the time spent on the streets; and the experience of others, measured by membership to specific networks.

On the other hand, Sampson and Raudenbush (2004) found that class and racial composition appears to be a strong predictor of perceived disorder, being of particular importance the racial stereotypes.

Recently, economist has revisited the concept of happiness and well-being; Easterlin (1974 and 2003), Blanchflower and Oswald (2004), Clark and Oswald (1994), Graham and Pettinato (2002), and Layard (2005) are some of the key references in this literature[6]. Despite the large literature of life satisfaction and quality life that has emerged, there are few articles that analyzed the relationship between crime and life satisfaction.

Using Gallup World Poll, Di Tella et al. (2008) show that individuals who have experienced property crimes or have been mugged or assaulted within the last 12 months (victimized) have lower levels of well-being.[7] They use different specifications to define well-being based on "subjective well-being" (asked directly to individuals) and innovative questions like if the individual smile yesterday or if would like more days like yesterday. They also show that individuals who have been mugged are "less likely to believe that effort pays".[8]

Cohen (2008) analyzed U.S. General Social Survey which is administered to 2,800 individuals annually for the years with life satisfaction data available.[9] The question of interest in the GSS asks "Taken all together, how would you say things are these days? (very happy, pretty happy or not happy). Combining this information with county level data that include economic social variables and different measures of crime they find that county level crime rates have little impact on overall life satisfaction. They also found that controlling for actual victimization reduces the significance level of impact to live in a perceived unsafe neighborhood. Cohen (2008) argue that one reason that might be explain

[6] There are many articles that have tried to link life satisfaction with different themes. An example of those are: Helburn (1982), which analyzed the link between geography and quality of life; studies that analyzed unemployment and quality of life, Winkelmann and Winkelmann (1998), Frey and Stutzer, (1999), Blanchflower and Oswald (2003); relationship between absolute and relative income and quality of life, Clark and Oswald, (1996), McBride (2000), Easterlin (2001), Deaton (2008), Ferrer-i-Carbonell (2005) ; Di Tella et al, (2001and 2003) analyzed the impact of macroeconomics indicators on life satisfaction. Alesina et al. (2004) analyzed the relationship between inequality and quality of life.

[7] The Gallup World Poll is a survey made in more than 130 countries in all regions of the world which allows to compare patterns of victimization and safety perceptions. The poll asks if in the last 12 months interviewed individuals were victims of property crime or crime against the person (assaulted or mugged)

[8] They also presented interesting statistics about the patterns of victimization across groups, like: "males are more often victimized than females", age is negative correlated with victimization, etc. For more see DiTella et al. (2008)

[9] Those are 1993, 1994, 1996, 1998, 2000, 2002 and 2004.

why county crime rates and perception of safety do not have impact (or little) on life satisfaction is because "for those who live in unsafe neighborhoods is the fact that these same individuals are already compensated for this higher risk of victimization through lower housing and rental prices. Thus, higher disposable income might offset the effect of less safety" (Cohen, 2008). On the other hand they find a quite large effect of a home burglary on life satisfaction.

Michalos and Zumbo (2000) analyzed crime-related issues on happiness, satisfaction with life as whole in city Prince George, British Columbia. They show that victims of crime reported lower measures of happiness and life satisfaction as a whole. They also point out measures of fear correlate negatively with life satisfaction. However they found that crime related issues were displaced by other measures like satisfaction with family life, health, self esteem among others, explaining the variation in overall happiness, life satisfaction and satisfaction with overall quality of life scores.

Powdthavee (2005), analyzed the level of well being of crime victims on Post Apartheid South Africa (1997-.), using subjective measures of well-being reported on October Household Survey of 1997 (OHS97). Data of 2121 crime victims (violent and property offenses) is used to determine whether, *ceteris paribus*, crime episodes are negatively correlated with well-being of households or not. Controlling for household expenditure, differences of race, sex, education and other variables, Powdthavee (2003) finds that there are substantial differences in reported welfare of crime and non-crime victims, as well as a "fear of crime" effect on non-victims' quality of life perception (felonies around the household or neighborhood, increase the perceived probability of victimization). However, an interesting finding is that the negative correlation between well-being measures and crime experiences for females "is attenuated as crime on others rises" (he calls this a social norm effect: individuals may feel safer if a large percentage of the population in the neighborhood shares their experiences of criminal victimization). The effect is always negative for males.

3. Data and Empirical Regularities

In this section we describe the evolution of crime in Medellin and the main statistics of the variables employed in this study. Our main sources for the empirical exercises and variables described in this section are: at census sector level, 2005 Population Census, provided by the Administrative Department of National Statistics (DANE, by its acronym in Spanish); we also have data available at the household level with the survey *Encuesta de Calidad de Vida de Medellin, ECVM*, for 2008 collected by the Municipality of Medellin, which has detailed information about living conditions of households in Medellin, with more than 18,500 households interviewed across all the neighborhoods in the city.[10] Map 5

[10] See Map 5. There are a total of 242 Census sectors (these are spatial units employed by Dane when surveying households), and 249 neighborhoods (these are the spatial administrative units in which the Municipality of Medellin splits the city) in Medellín. In the case of Medellin, these spatial units are very similar.

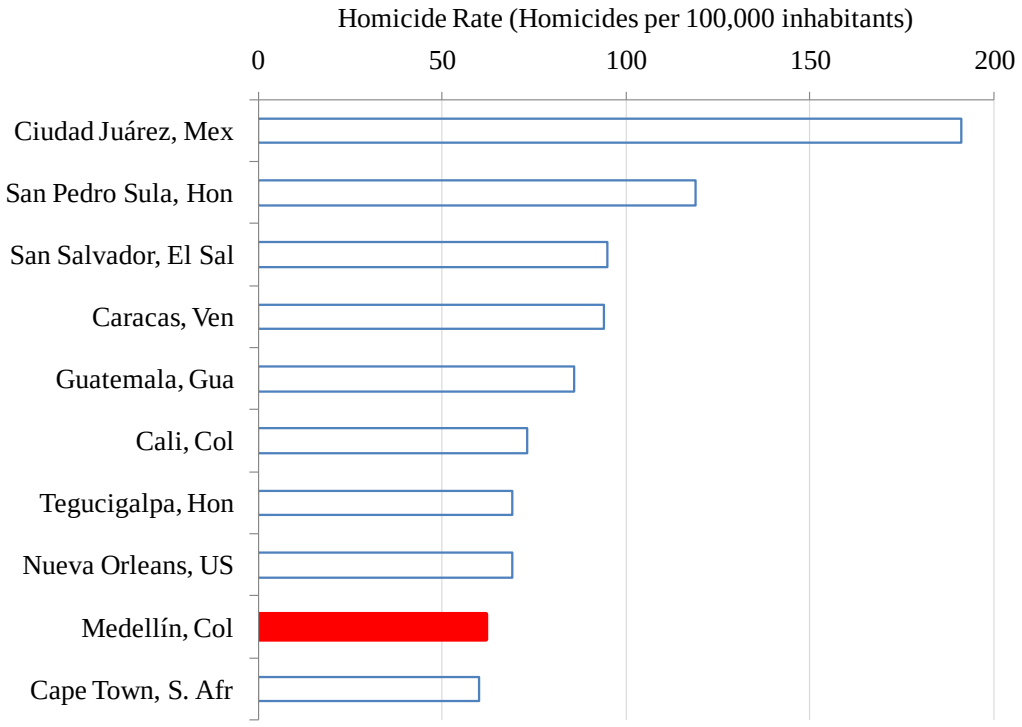
shows that from each neighborhood, households were selected randomly in a way that could include households in each of the six strata.[11]

Finally, we use information of homicides and individuals captured in the act for different types of crime at spatial coordinates recorded by the Judicial Police Sectional of the National Police Department, (SIJIN by its acronym in Spanish).

Empirical Regularities

Medellín has been during the last three decades one of the most violent cities of the world, and at times, it has had the highest homicide rate. Even though current homicide rates are much lower than the ones the city registered in the early 1990s, Medellín was still recently ranked among the 10 most violent cities of the world, as it can be observed in Figure 1, where it was ranked 9th by a study published by two Mexican nongovernmental organizations.[12]

Figure 1. Cities with the Highest Homicide Rates of the World, 2009.



Source: *Consejo Ciudadano para la Seguridad Pública y la Justicia Penal* (CCSPJP) and *Movimiento Blanco*.

Medellín's violence has been traditionally high due to existence of guerrilla groups, but the drug business that took off in the late 1970s and early 1980s, fueled initially the emergence of organized crime to support the business, then the existence of the guerrilla groups who

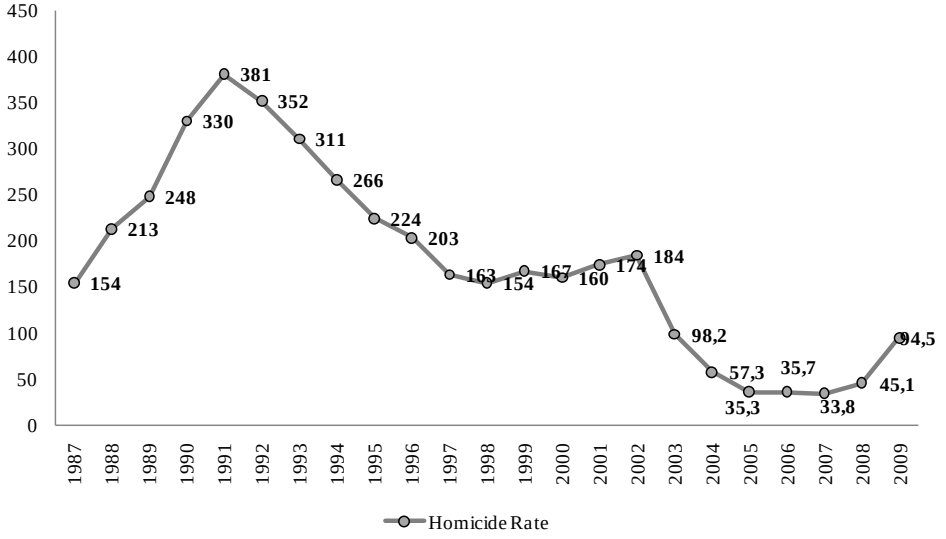
[11] Urban areas in Colombia are split into six socioeconomic strata in which, the first one has the lowest QoL levels. The strata are used by authorities to target social spending like that in the supply of public services (water, electricity), housing, health insurance for the poor, etc.
[12] Patterns of crime by country in Latin America can be found in Soares and Naritomi (2010).

were hired to care for the drug grows, and finally the emergence of the paramilitary groups to care for both the entire business chain and any other armed group.[13] It also becomes apparent for the figure than the drug business is a driving force of violence not only in Medellín and Colombia, but also in other countries of the world. In particular, it is the main cause for the recent increase in the homicide rate in Mexico, and for the presence of Ciudad Juárez as the most violent city of the world in Figure 1.

Figure 2 shows the evolution of the homicide rate in Medellin over the period 1987-2009. There are three main aspects to highlight from this figure. First, the homicide rate began to rise in the mid 1980s and continued increasing until early 1990s, when the homicide rate reached its highest level and began a persistent decline reaching levels not seeing since late seventies. As it is stressed by Gaviria et al. (2010), the observed peak of the homicide rate in the early 1990s was due to the "boom of the Medellin drug cartel, and it's declaration of war to the government and other illegal groups" (Gaviria et al., 2010).

Secondly, the homicide rate presents a severe decline observed in October of 2002 due to the 'hot-spot', called *Operación Orion*, perpetuated by military forces against the urban militias of the guerrillas (FARC and ELN by their acronyms in Spanish), which took place in the thirteen commune, *San Javier*, located at the west zone of the city, and the *Cacique Nutibara* paramilitary demobilization process that took place in November of 2003. These operations had a huge impact in the reduction of the homicides in the city.[14]

Figure 2. Homicide Rate in Medellin



Source: Government Secretary's Office of Medellín, published in of report of Civil Security from "Medellín Como Vamos"

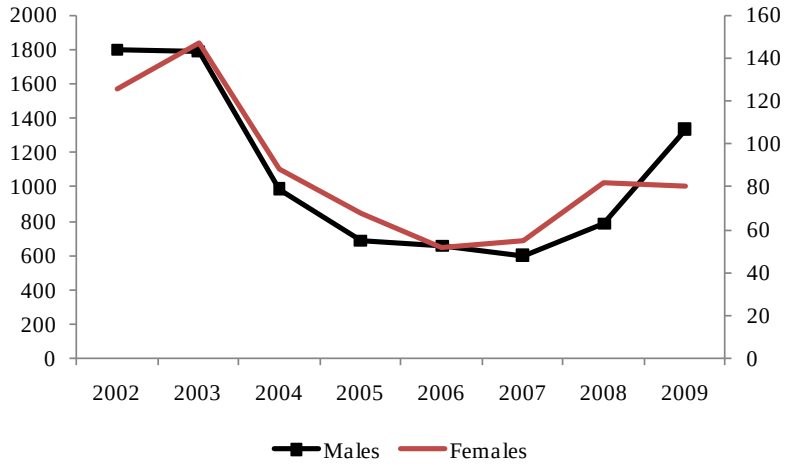
[13] Bullinton (1992) reports the huge share of cocaine and marihuana entering the US in the 1980s through Bahamas and Miami, and the role of Colombian drug dealers in sending it, as it is also described by Riley (1996). See also Gamarra (2003) who argues that most Colombian migrants to the US since the late 1970s and until the mid 1990s was linked to the growth of the international trade of narcotics. See also Thoumi (1995) and Gugliotta and Leen (1989) on this. The relation between drug dealer and guerrillas and paramiloitary groups is described in Villamarin (1996).

[14] Giraldo (2008) finds positive effects of the *Operación Orion* but questions the outcomes of the BCN demobilization (see also Palau and Llorente, 2009, and the references therein)

Third, the renewed increase in the homicide rate beginning in 2008, the year in which key paramilitary leaders were extradited to the United States, and the capture of other leaders in April of 2009, has been interpreted as caused by a fight among drug dealers to gain power within their organization, and among the potential owners of the drug domestic urban market.

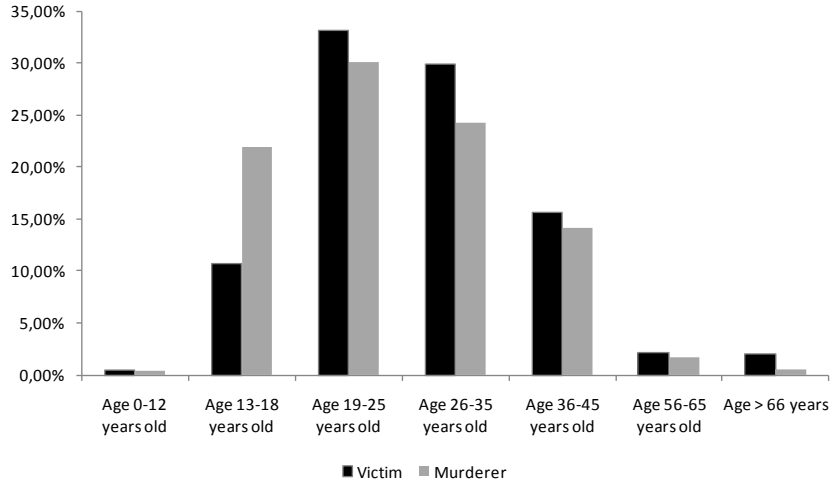
Figure 3 present homicide rate for females and males over the period 2002-2009. Although they are highly correlated, the homicide rate is twelve times higher for males than for females. This is a very important feature of the violence in Medellin because this fact, coupled with the statistics presented in Figure 4, let us understanding better who are the participants and the motives, of the violence process in the city.[15]

Figure 3. Homicide Rate, by Gender



Source: National Police Department of Statistics

Figure 4. Age of the Victim and Murder Apprehended in the Act

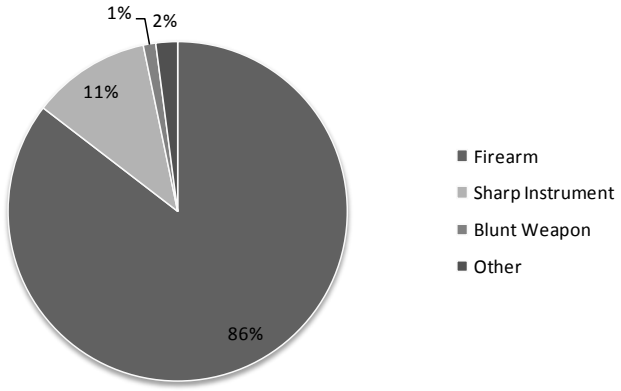


[15] Giraldo et al. (2010) present a complete characterization of the violent crime in Medellin.

Source: National Police Department, Sectional Judicial Police (SIJIN)

Figure 4 shows that the average age of the victims and murders (who were captured in the act) are around 17-25 years old.[16] This fact shows that victims and murders have many characteristics in common. In fact, Giraldo et al. (2010) argued that victims and murders have similar levels of education, age, sex (Figure 3), neighborhood where they live, and activity, among others. This and other of the mentioned facts suggest that a great share of armed actors is not related to ordinary crime but rather to organized crime fighting for territory control.[17]

Figure 5. Type of Weapon used in Homicides



Source: National Police Department, Sectional Judicial Police (SIJIN)

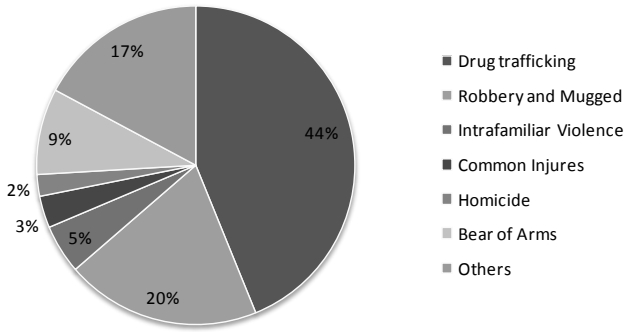
The type of weapon used to commit murderers is presented in Figure 5. The pie shows that most of the homicides are committed with fire arms. Cohen and Rubio (2007), based on estimates of the World Health Organization (WHO) stress that the number of homicides committed with firearms in Latin America has reached three times the world average. This is a very important aspect since as it is stressed by Gavira et al. (2010), the easy access to firearms might be one of the main problems of the high incidence of crime. Krug et al. (2002) show that the increase in the homicide rate, experienced in the late nineties in Colombia was associated with the increase in the use of guns as method of attack: "youth homicides increased by 159%, from 36.7 per 100,000 to 95 per 100,000, with 80% of cases at the end of this period involving guns" (Krug et al., 2002). Cohen and Rubio (2007) also argue that the problem of young gangs and violence are also a matter of concern.

Figure 6 shows the shares of the different causes by which individuals were captured in Medellín. Drug-trafficking and robbery are the main reasons why people were captured during the period 2002-2009, reflecting the nature of the conflict in Medellin.

[16] We present only statistics for murders captured in the act. Later we are going to use that variable as a proxy for different types of criminal activity.

[17] For example, 75 percent of the victims murderer in Medellín in the first semester of 2009 were murdered in their neighborhood of residence, what is linked to the hiring of killers or to fights for territory control among gangs that belong to the organized crime. See Information System for Security and Coexistence (2009).

Figure 6. Captures By Type of Crime

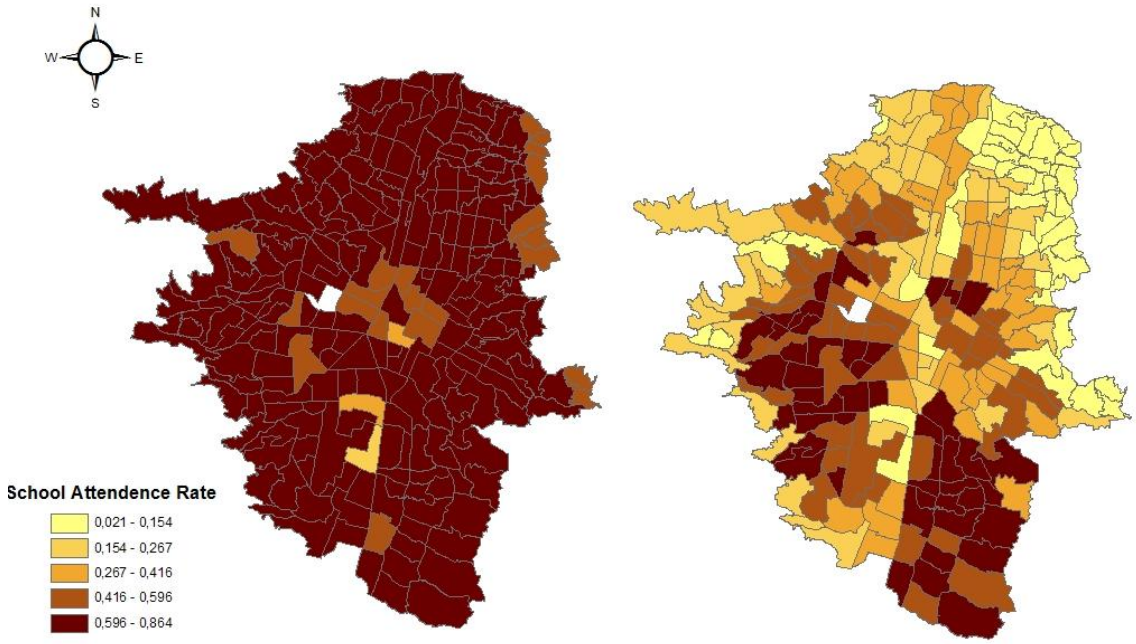


Source: National Police Department, Sectional Judicial Police (SIJIN)

We proceed to analyze the spatial distribution of some socio-economic characteristics in Medellin. Map 1 shows the spatial distribution of the school attendance rate in Medellin based on the Population Census of 2005. It can be seen that secondary school attendance has reached all socioeconomic strata of the city in a considerable spatially homogeneous way. A different situation happens with college attendance, since only at the southeast and center-west of the city we can be observe rates above 50 percent. In addition, there a clear pattern of higher college attendance in the better neighborhoods, as it becomes clear when comparing maps 1 and 2, which includes the location of households according to their income quintile.

Map 1. School Attendance Rate, 2005

Secondary **College**

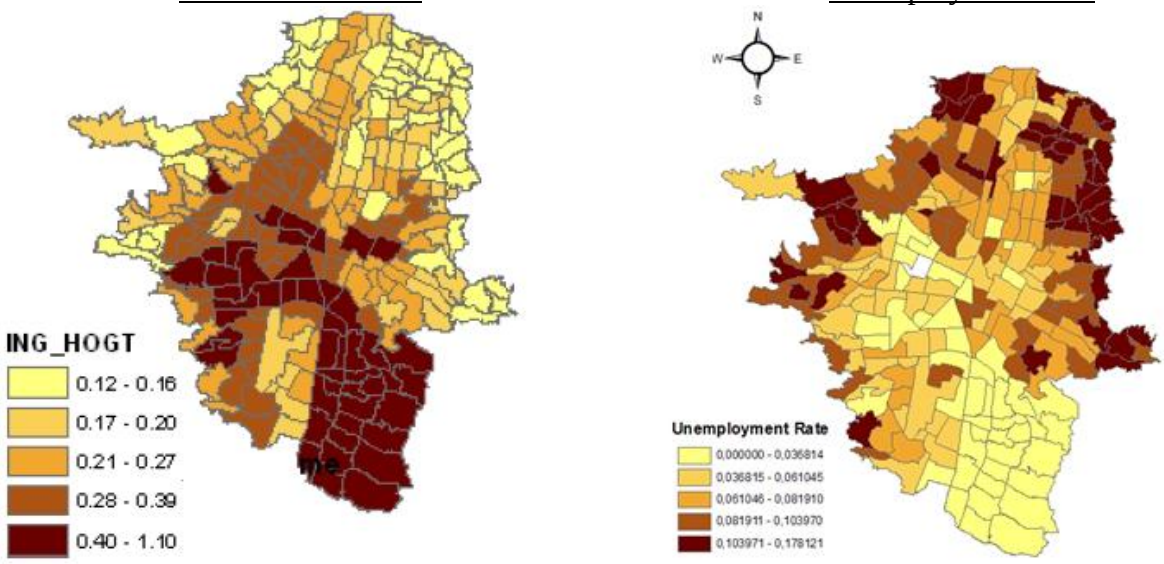


Source: Population Census 2005.

There is a large literature that have emphasized that dropping out of school seem to be a strong risk factor to determine crime and gang membership. In fact, Gaviria et al. (2010) found that "actually neighborhoods with (i) high effective adolescent fertility rates, (ii) low secondary enrollment, and (iii) high crime rates at the moment the children of their teen mothers become teenagers, are more likely to have higher homicide rates in the future, when those children reach their peak crime ages, estimated to be between 18 to 26 years old in violent cities of Colombia" (Gaviria et al. 2010). Lochner and Moretti (2004) also find that education reduces crime, and the probabilities of incarceration and arrests. Buvinic, Morrison and Orlando (2005) stress that drop out of high school or low school performance are reasons that explain high youth criminality in Latin America. In the same line Heckman and Masterov (2007) argue that education is a more cost effective policy to reduce crime than increasing the number of police.

Map 2 also shows the areas with the highest unemployment rates, which are located mostly in the periphery of the west, north and east of the city, matching the areas with the lowest levels of income and college attendance.

Map 2. Household Income and the Unemployment Rate



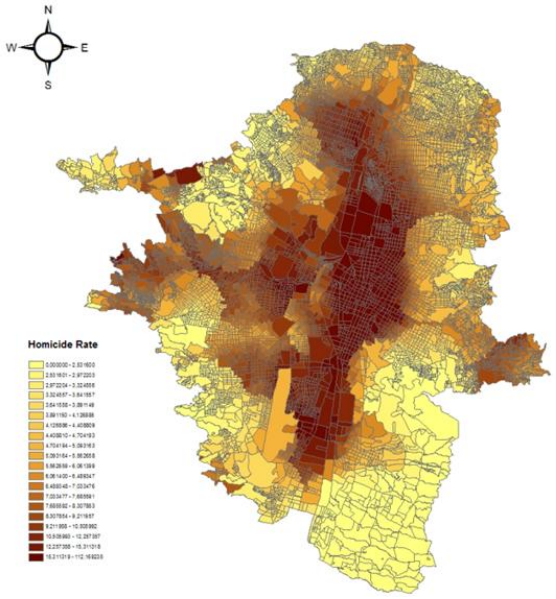
Source: Income: Medina et al. (2008) which use ECVM 2006, Unemployment Rate: Population Census 2005.

Let us now describe the most affected areas of the city by homicides. Map 3 shows homicide rates and the average distance to the homicides. Both figures were estimated at the block level using the kernel procedure described in appendix A1. The figures have some features in common but are different because they have two different concepts behind. While the homicide rate indicates the (unconditional) probability of someone living in a specific block to be murdered, the distance say the average number of meters from the block someone lives that victims have been killed. The center of the map contains downtown Medellín (circled area), where we can observe both a high homicide rate and a short distance to crime, but although blocks in the northeast of the city does not seem to have a high homicide rate, they do have short distances to crime, which might be explained

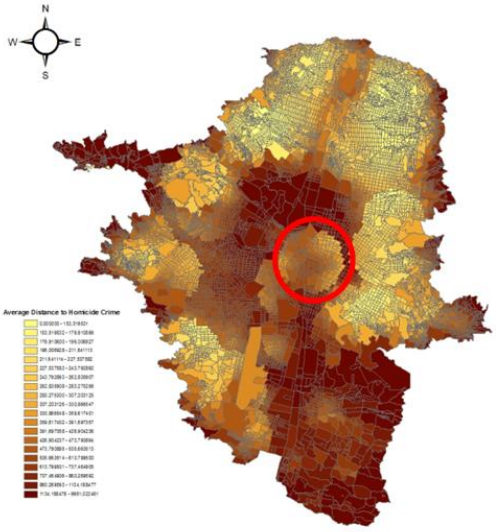
by the high population density of the sector, which allows to have both many people being killed nearby and still low homicide rates.

Map 3. Homicide Rate and Average Distance to Homicide Crime, 2008

Homicide Rate

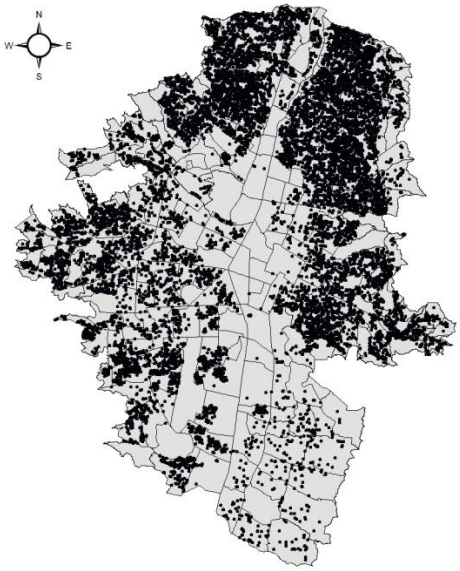


Average Distance to Homicide Crime



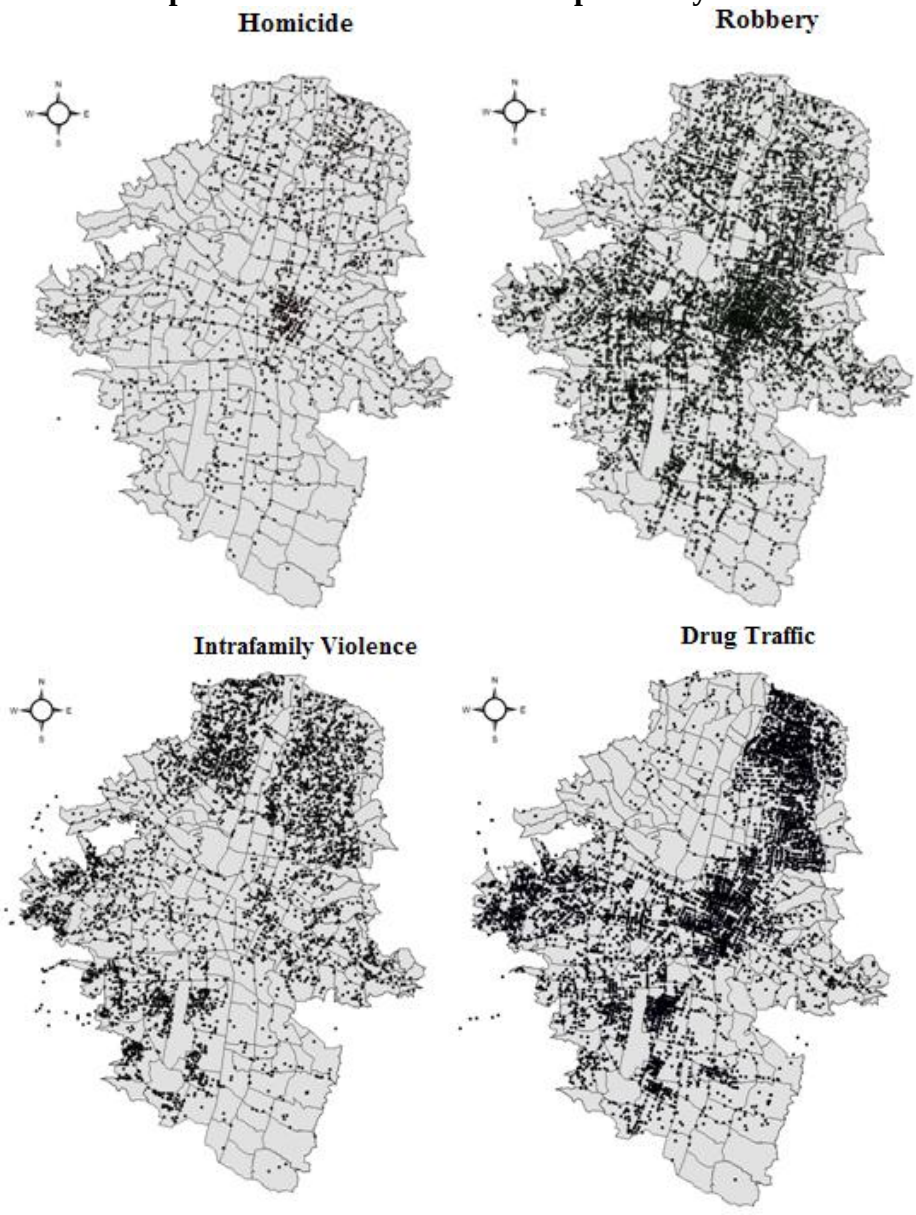
Map 4 shows the distribution of the households interviewed in the ECVM 2008, which we are using in our empirical work. While the units of observation in Map 3 are the blocks of the city, those of Map 4 are its neighborhoods. The random design of the sample implies the high population density existent at the north of the city, in the two dense subset of population separated by the river of the city and the highways that surround it.

Map 4. Distribution of Interviewed Individuals, ECV2008



Map 5 shows the location where criminals committing homicide, robbery, intra-family violence, or drug trafficking, have been captured. Homicides and robbery are mostly located in downtown Medellín, and intra-family violence takes place mostly in the poorest neighborhoods. Finally, drug related offenses demark a corridor that goes from the west through downtown until the northeast of the city, what implies an asymmetry in that offense on that part of the city with respect to the northwest, an area with similar characteristics that could have been expected to have been as well affected as much by drugs.

Map 5. Location of Criminals Captured by Offense



Patterns of Crime and Quality Life

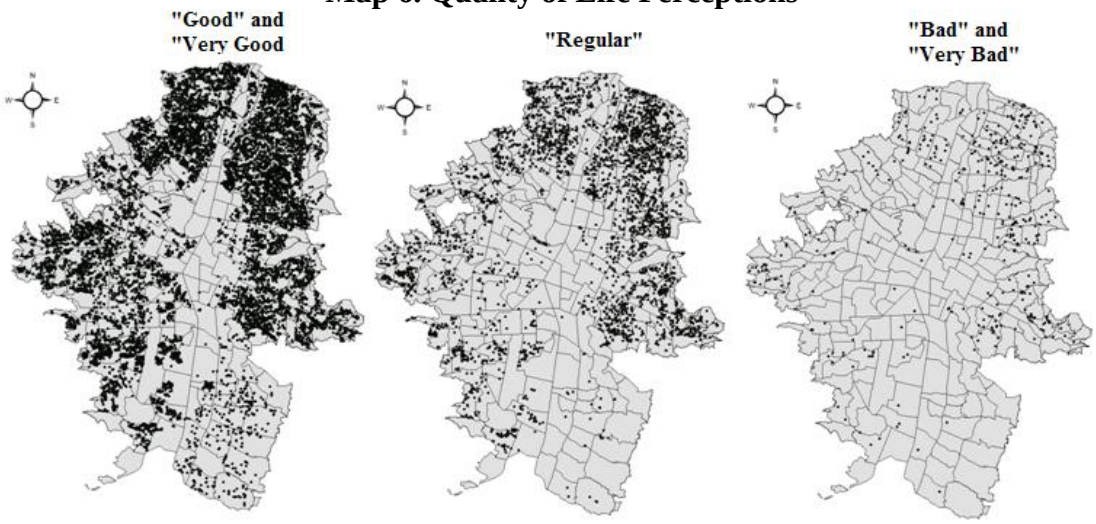
The survey *Encuesta de Calidad de Vida de Medellin*, ECVM, for 2008 collected by the Municipality of Medellin, provides an opportunity to analyze the patterns of crime, victimization and perceptions of safety with life satisfaction.

The survey asks the household head: "Currently, the quality of life conditions in your household are:", and allows individuals to choose among the following options: "very good", "good", "fair", "bad" and "very bad". We use the answer to this question to define that a household has "good quality life perceptions" if the household head answered "very good" or "good", as it is usually assumed in the quality of life literature.

The survey also asks them: "How do you feel in the Neighborhood or district where you live?". In this case, individuals classify their safety perceptions of the neighborhood in four categories, "very safe", "safe", "insecure" and "very insecure".

Map 6 shows where do individuals who answer to have "good and very good", "regular" or "bad and very bad" quality life perceptions, live. Surprisingly, people who have "good and very good" perceptions of life satisfaction are spatially distributed across the city, while people with "regular" and "bad and very bad" perceptions of quality life are concentrated among neighborhoods with low levels of income, in the periphery of the city at the west, north and east.

Map 6. Quality of Life Perceptions



Source: ECVM 2008

Additionally, the ECVM explores victimization asking individuals if at least one member of their household were victims of crimes against life, property crimes and personal security, among others: "During the last 12 months, have you or other member of your family been victim of a crime?".[18]

[18] They asked interviewed individual to specify which one of the 25 categories the survey has, was.

We analyzed reported patters of this three questions taking in account stratum, age and household income. A first look to reported patterns reveals that life satisfaction perceptions are positively correlated with the socioeconomic strata (the correlation between these two variables is around 0.26).[19] Table 1 shows that at higher levels of socioeconomic strata, the quality of life perceptions are better. Regarding perceptions of security of Neighborhoods, stratum 6 presents the highest "good perceptions", while stratum 1 the worst. This table presents an interesting fact, which is that strata 2 and 3 have better perceptions of neighborhood security than strata 4 and 5, which suggest that the better off households residing in socioeconomic strata 4 and 5 might be more demanding in security standards. For households in stratum 6, the provision of security by own households' means might be explain the difference with the answer provided by households in strata 4 and 5, which although still in a good socioeconomic situation, might not have as much resources to fund their private security.[20] Finally, victimization seems to have high incidence in strata 3 and 4, while stratum 6 presents the lowest victimization rates.

Table 1. Key variables statistics by socioeconomic strata. (%)

Socioeconomic Stratum	Number of Households	Good Quality Life Perceptions	Good Security Neighborhood Perceptions	Victimization
1	1,994	59.8	79.9	8.2
2	6,505	70.9	88.0	8.1
3	5,803	80.1	88.7	8.3
4	2,012	91.5	83.5	10.3
5	1,501	95.9	85.7	8.1
6	776	97.8	94.7	6.1
Total	18,591	78.0	87.0	8.3

Source: ECVM 2008

Table 2 presents the rate of victimized households by age range. It shows that victimization is higher among the youngest individuals, while the best security perceptions of the neighborhood are among the oldest. These age patterns are similar to those reported in Di Tella et al. (2008) for Latin-American Countries and the rest of the world. On the other hand, good quality of life perceptions are higher among the people between 20-30 years old and the older than 50 years, than for the other age groups.[21]

[19] See also their spatial correlation in Maps 1, 2 and 7.
[20] See Di Tella et al. (2010) and Gaviria and Vélez (2001) for more on this.
[21] In our empirical estimations below we will find the standard U-shaped relationship between life satisfaction and age.

Table 2. Key variables statistics by age range. (%)

Age	Good Quality Life Perceptions	Good Security Neighborhood Perceptions	Victimization
20-30 years	80.4	86.0	9.3
30-40 years	77.2	85.5	9.1
40-50 years	77.4	85.6	9.5
50-60 years	78.1	87.1	9.0
60-70 years	78.2	87.5	7.0
More 70 years	77.4	88.7	6.0
Total	78.0	87.0	8.3

Good Quality of Life Perceptions is a dummy variable equal to one if individuals responded that current conditions in their household were "very good" or "good", and zero otherwise; Good Security Neighborhood Perceptions is a dummy variable equal to one if individuals reported to live in a "very safe" or "safe" neighborhood, and zero otherwise; Victimization is a dummy variable equal to one if any member of the household was a victim of any offense (robbery, burglary, personal, other), and zero otherwise. Source: ECVM 2008.

The *ECVM* also asks respondents to report their personal income in local currency, and also to report the income of the each individual at home. We construct household income adding the incomes of all household members, and then we determine income quintile each household is in. Table 3 shows the means of our key variables by income quintile. People with higher income are more likely to report having been victim of a crime, and having higher quality of life perceptions (except for quintile 1 which again presents on average better perception than quintiles 2 and 3). Good safety perceptions of the neighborhood are higher among people with higher income except for quintile 1 which perception are in average better than perceptions of quintiles 2 and 3. Di Tella et al. (2008) report similar conclusions for Latin-American countries regarding quality of life perceptions; however, their conclusions do not apply to the perception of safety in the Neighborhood, since they reported that feelings of insecurity and lack of trust in the police in Latin America were increasing with income.

Table 3. Key variables statistics by income quintile. (%)

Quintile	Good Quality Life Perceptions	Good Security Neighborhood Perceptions	Victimization
1	77.9	86.9	7.5
2	60.4	83.4	8.8
3	72.4	85.8	8.5
4	80.6	87.0	8.3
5	89.5	88.7	10.1
Total	78.0	87.0	8.3

Source: ECVM 2008

4. Identification and Estimation

Robust evidence of a statistical relationship between the homicide rate and life satisfaction is scarce in the literature. Previous work by Cohen (2008) does not find a significant effect of crime on life satisfaction, although Cohen (2008), Powdthavee (2003), and Michalos and Zumbo (2000), find a negative effect of victimization on life satisfaction.[22] Previous work by Medina et al. (2010) using data for Bogotá and Medellín had already evidenced the challenge to uncover the relationship between the homicide rate and life satisfaction. They estimate both standard hedonic models using as dependent variable property prices, and life satisfaction models, and although their hedonic models captured a negative capitalization of the homicide rate on property values in both Bogotá and Medellín, their life satisfaction models did not register any statistically significant relationship between the homicide rate and life satisfaction.[23]

Both the results of these authors and ours might just be lacking a correct identification strategy of the effect of the homicide rate on life satisfaction, but due to the complex nature of our dependent variable, which is very much related to everything, it is implausible to come up with a variable that could allow us to implement a standard instrumental variable approach, and thus, any strategy would rely more on accounting for as many observables as possible and determining on what subsamples of the population it would actually be more likely to identify the relationship of interest.

Individuals' decision to move to a specific neighborhood considers his or her expectations regarding the characteristics of houses and amenities of all potential places they might move to, including the homicide rate. To that extent, we could expect endogeneity due to households sorting across neighborhoods to be larger the larger the movement of households across neighborhoods, and in particular, the larger the share of households that had moved recently. It is possible that self-reported life satisfaction of recent movers is more likely to have already discounted the cost borne by the current homicide rate faced in his neighborhood, than it would be the case for individuals who have stayed in that neighborhood for several years, since the later might be facing constraints that prevent them, or make them more costly to move to another neighborhood, thus having to internalize the dissatisfaction caused by its homicide rate. Among the rigidities that might prevent people from moving to other neighborhood we could think of homeownership, which might require people to sell, and maybe also buy later on, a house; the proximity to their workplace or to their children's schools, etc.

The approach we follow is assessing the effect of the homicide on life satisfaction on the sample of households that have been living in their current houses for several years, and exclude from the analysis recent movers.

[22] Powdthavee (2005) also includes in his estimation an interaction variable between his crime rate and whether the individual had been a victim of crime, finding a positive coefficient on that interaction variable.
[23] Gaviria et al. (2010) had as well found a negative capitalization of the homicide rate on property values in the case of Bogotá.

Let us analyze households' characteristics according to whether they have been living in their current neighborhood for at least 10 years, and compare them with those of households that have lived in their current neighborhoods for less than 10 years. Table 4 contains descriptive statistics of these populations, splitting the sample of households that have been living in their current neighborhoods for at least 10 years into those that have always lived there (columns (iii) and (iv)), and those that moved there at some point (columns (v) and (vi)). The last column of the table compares the mean of households living in their current neighborhoods less than 10 years ago (*recent movers*) with that of those who have always lived there (*settlers*, columns (i) minus (iii)), and the later with the mean of households who have been living in their current neighborhood for at least 10 years and that moved at some point there (*previous movers*, columns (iii) minus (v)). Characteristics with an asterisk in those columns mean that the difference is statistically different from zero.

The three samples of households are very different. We can say that *recent movers* have on the whole better quality of life than *settlers*, and *settlers* better quality of life than *previous movers*. The order is supported by the monotone decreasing relation observed in household income, the share of household head employed, having good health, enrolled in private health insurance or a pension fund, and their educational attainment. Households also show a monotone decreasing relation in the probability to have internet or cable TV, their occupation rate and the share in socioeconomic stratum 5 or 6.

Besides having most variables indicating they have the lowest quality of life of the three groups, *previous movers* are also the less satisfied with their lives of them. Although *settlers* currently live in the neighborhoods with the highest homicide rates, the used to live in neighborhoods with the lowest homicide rates, and additionally, they are the ones who live on average farther from the places where homicides take place. In addition, both *recent* and *previous movers* are more likely to have been victimized.

Finally, and not least important, *recent movers* are the households less likely to own their house, with just 35 percent of them owning their houses, while 66 and 70 percent of *settlers* and *previous movers* doing it. This gives support to our hypothesis claiming the existence of rigidities for households moving across neighborhoods, according to which home ownership would imply a form of rigidity.

To assess the effect of the homicide rate on life satisfaction, we estimate a standard life satisfaction model of the form

$$LS = \alpha_0 + \alpha_1 Y + \alpha_2 Crime + \alpha_3 H + \alpha_4 A + u \qquad (1)$$

Where Y is household income, *Crime* is a measure of the homicide rate in the vicinity of the individual, H is a vector of household and individual's variables and A is a vector of amenities of the neighborhood.

Results on life satisfaction

Table 5 presents the results of estimating equation (1). The table contains two panels, one for the whole sample and the other includes only households living in their current house at least 10 years ago. Columns (i) to (vi) include the same covariates columns (vii) to (xii) include. Column (i) is the simplest specification, controlling only for the variables most arguably exogenous we had available from the LSMS survey, namely the basic household's head characteristics like gender, age, education and years living where currently lives, and the key variables related to crime we are interested to assess, like the household's homicide rate, its average distance to crime, the household head perception of how safe is his neighborhood, and whether he or she has been victim of any offense, which includes a wide variety of crimes like mugging, burglary, car theft, treats, etc.

As a first attempt to account for the endogeneity of the residential location of households, we control for predetermined characteristics, and actually, for characteristics predetermined even before the individual got into its current neighborhood, by including in the estimation of column (ii) the household's previous neighborhood of residence fixed effects. Column (iii) in addition controls for both past and current neighborhood fixed effects, and adds a few other housing covariates like availability of a fixed phone line, electricity, aqueduct, and the number of rooms. Note that we can include both fixed effects and still identify the effect of the homicide rate, since we estimated a different homicide rate figure by household, allowing us to have variation within neighborhoods.

Column (iv) drops the variable of the household's head perception of security in his neighborhood, while columns (v) and (vi) include each additional covariates to the previous columns, home ownership and other housing characteristics in column (v), and individual's variables related to his labor market performance and enrollment in health insurance and pension funds.

First note that the control variables included have the expected effects on life satisfaction. Life satisfaction decreases with age at a decreasing rate, decreases with the number of people in the household, and increases with income, the socioeconomic stratum and education, and it is higher for males and for the married household head than the single or divorced.[24]

Secondly, when we include in the estimation all household heads in our sample, we cannot identify any statistically significant effect of the homicide rate on life satisfaction (if something, a positive coefficient in column (ii)), nor of the arrest rates or the distance to crime. Both individual's perception of security in the neighborhood, and his or her had being victim of any offense result in significant and robust positive and negative effects on life satisfaction respectively.

In order to attempt to attenuate the endogeneity problem previously described, we estimate model (1) only for the set of people who have been in their current neighborhood for at

[24] See Ferrer-i-Carbonell and Frijters (2004), Di Tella et al. (2008), and Medina et al. (2010), among others.

least 10 years.[25] The results are included in the second panel of Table 5 in columns (vii) to (xii). Here again, although the magnitude of the coefficients on the variables expressing whether the individual is feeling safe in the neighborhood and has been victimized turn in general smaller in their absolute values, their statistical significance is still robust. Nonetheless, for this sample the coefficient on the homicide rate becomes negative although still not significant, and arrest rates actually become negative, although not significant. Note also the importance of controlling for the households' past neighborhood fixed effects in allowing us to identify the negative effect of the homicide rate on life satisfaction, which becomes evident as we move from column (vii) to column (viii). Beyond the household's socioeconomic strata, an amenity that varies within each neighborhood which was already included in our estimation, the neighborhood fixed effects allow us to control for variation across neighborhoods on all other unobservable amenities.

As we showed previously, the subsample of households living in their current neighborhood for 10 or more years is composed by two different sub populations, the *previous movers* and the *settlers*, being the *settlers* those with higher quality of life between them.

As Parkes et al. (2002) claim, neighborhood's characteristics are more likely to be more important for households living in the poorest areas than for those in the richest areas, since the social life of the later goes beyond the immediate possibilities provided by their neighborhoods. They also find that households living in the poorest areas are more sensitive to crime, being more likely to capitalize the costs of crime in their neighborhoods into lower level of life satisfaction.

The previous argument suggest that it might be worth to separately assess the effect of the homicide rate on life satisfaction for the subsamples of previous movers, those registering the most unfavorable quality of life conditions and living in the poorest neighborhoods of our three groups, and that of settlers. According to Parkes et al. (2002), we should be more likely to indentify the effects of crime in the former group than in the later. Although these authors use a measure of neighborhood satisfaction rather than our overall life satisfaction measure, both of these measures should help us to better understand the relation of interest.

The results of estimating equation (1) for each of this two subsamples are presented in Table 6, which has the same structure of Table 5, but now with the panel on the left being that for the *movers*, and the one on the right the one for the households who have always been in their current neighborhoods or *settlers*. There are almost two *settlers* per *mover*, and the homicide rate has negative coefficients for the subsample of *recent movers* once we control for the previous neighborhood fixed effects. In addition, the arrest rates now become positive and significantly related to life satisfaction for the subsample of *movers*. We cannot still identify any effect of the homicide rate on life satisfaction for the subsample of settlers. This result suggests that while *settlers* are more likely to have sunk the cost of the homicide rate levels of their neighborhoods, *movers* have a harder time to

[25] We also got estimates of all regressions found below, splitting the sample with people living in their current neighborhood nine, eight, seven, six and five years ago, and we found similar results to the ones reported.

get used to it, and thus, are more likely to capitalize them into lower levels of overall life satisfaction, resembling in part the result found by Parkes et al. (2002).

It is also important to highlight that although feeling safe in the neighborhood keeps being robustly linked to higher levels of life satisfaction for both subsamples, having been a victim of an offense only reduces life satisfaction in a statistically significant magnitude among the *settlers*. An interesting result (not reported here) is that having been victimized affects life satisfaction particularly of individuals living in places with high homicide rates.[26]

To have an idea of the magnitude of the effect of the homicide rate, the perception of security in the neighborhood and the victimization, on life satisfaction, we re-estimate a few of the previous specifications by OLS and get standardized coefficients (not reported here). We find that a standard deviation increase in each of the homicide rate, the share of households feeling safe in their neighborhoods, and the share of households reporting to have been victimized, implies a decrease of 5.3, -4.7 (that is, an increase) and 1.8 percent of a standard deviation of life satisfaction respectively.[27] The magnitudes are important since these effects are obtained once all other variables in our estimation are controlled for. To mention a couple example, a one standard deviation increase in household's income implies an increase of 4.4 percent of a standard deviation life satisfaction, that is less than the effect a one standard deviation in the homicide rate would have on it. Education is the variable for which a one standard deviation increase affects the most life satisfaction: it would increase it in 10.7 percent of a standard deviation.

The case of very happy households

To assess whether the homicide rate affects not only whether individuals feel satisfied or very satisfied rather than unsatisfied, but also if it makes a difference in the likelihood of people feeling very satisfied with their lives, we estimate again equation (1) changing our definition of the dependent variable to be equal to one only for individuals who reported to be very satisfied, and zero for all the others. The results presented in tables 5 and 6 with the previous definition are now replied with the new definition in tables 7 and 8.

Let us first compare the results of tables 5 and 7. As it was the case in Table 5 with the likelihood of individuals being satisfied, results in Table 7 do not show a significant relation between the homicide rate and the likelihood of individuals feeling very happy. Distance to crime suggests impacts positively the likelihood of being very happy, nonetheless, the results is not robust to the inclusion of current neighborhood fixed effects. Feeling safe in the neighborhood also affects positively the likelihood of being very satisfied in both the whole sample and the subsample of households living in their current

[26] The result was obtained for the subsample of previous movers by estimating the model with an interaction of the homicide rate and the victimization variable. The coefficient on the interaction variable is negative and significant, while the victimization variable losses its significance. The homicide rate keeps being negative and significant.

[27] This result was found for the sample of previous movers with the specification in column (ii) in the tables, although other specification led to similar results.

neighborhood 10 or more years ago. Finally, having been victim of an offense does not affect the likelihood of individuals feeling very satisfied, in contrast to the robust results found in Table 5 on life satisfaction.

When we compare the results obtained in tables 6 and 8 we find that the effects of the homicide rate, the distance to crime and feeling safe in the neighborhood are very similar, nonetheless, the arrest rates and having been victim of an offense, affected life satisfaction, but it does not affect the likelihood of feeling very satisfied..

The role of the type of victimization

Tables 9 and 10 show the result of estimating equation (1) but now splitting the variable victim of an offense in two variables, one that includes robbery (4.8 percent of households, most of the offenses in this subset), burglary (0.1 percent of households) and personal offenses (households with at least one member that has been threatened, blackmailed, murdered, kidnapped or rapped; 0.8 percent of households), and the other includes the rest (households with at least one member that has been victim of car accidents, fights, gun shots, drugs, etc.; 2.5 percent of households).

The results of tables 5 and 9 are very similar, meaning that both offenses included in Table 9 are important in the same models they were in Table 5, nonetheless, a comparison between tables 6 and 10 reveals that although being a victim of an offense negatively affected life satisfaction in both populations, once we split the victimization variable we find that the variable that includes robbery keeps affecting negatively life satisfaction in both populations, but the other variable only affects it on the population of *settlers*, not in the one of *previous movers*.

To have an idea of the magnitude of the effect of the homicide rate, the perception of security in the neighborhood and the two types of victimization, on life satisfaction, we re-estimate, again, a few of the previous specifications by OLS and get standardized coefficients (not reported here). We find that a standard deviation increase in each of the homicide rate, the share of households feeling safe in their neighborhoods, the share of households reporting to have been victimized burglary, and the share of households reporting to have been victimized with other offenses, implies a decrease of 5.3, -4.6 (that is, an increase), 2.1 and 0.3 percent of a standard deviation of life satisfaction respectively.[28] That is, most of the effect found previously for the aggregate of all offenses can be explained by the ones that are mostly driven by burglary.

5. Conclusions

Despite the empirical challenges faced to identify how crime affects life satisfaction, we exploit the large variation in the homicide rates between the different neighborhoods of Medellín, and a large data set with the census of its homicides during several years, to build homicide rates at the block level, and split the sample, in a way that allows us to get

[28] This result was found, again, for the sample of previous movers with the specification in column (ii) in the tables, although other specification led to similar results.

reasonable estimates of the effect of the homicide rate, individual's perception of security in their neighborhood of residence, and of the effect of their having been victimized, on life satisfaction.

We find a negative effect of the homicide rate on life satisfaction for the subsample of individuals living in their current houses for at least 5 years or more, who had moved to that place at some point in the past. That subsample of households is characterized for having the lowest quality of life conditions than the subsamples of households who have moved during the last 5 years, and the subsample of households who have always lived in their current houses. Note that not having found effects for the other two subsamples of households does not mean that there does not exist any effect, but rather that we could not be able to identify it due to the challenge posed by households' self-selection into their current neighborhoods.

The homicide rate affects both the life satisfaction of that sample of households, and their likelihood to feel very happy, that is, their likelihood to have very good quality of life conditions.

We also find a positive and robust effect of the perception of security in the households' neighborhood for the whole sample, and for each of the three subsamples described. Having been victim of an offense is also robustly negatively related to life satisfaction, in particular in the cases where the offense was robbery.

Our results show that a standard deviation increase in each of the homicide rate, the share of households feeling safe in their neighborhoods, and the share of households reporting to have been victimized, implies a decrease of 5.3, -4.7 (that is, an increase) and 1.8 percent of a standard deviation of life satisfaction respectively.

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Table 4. Descriptive statistics of *recent* and *previous movers*, and *settlers*.

Variable	In Current Neighborhood Less than 10 Years Ago		In Current Neighborhood 10 or More Years Ago				*t* -statistic			
			Always in Current Neighborhood		Movers					
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.				
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(i)-(iii)		(iii)-(v)	
Life Satisfaction	0.8003	0.3998	0.7885	0.4084	**0.7374**	0.4401	1.71		6.43	*
Homicide rate	**7.32**	8.47	6.41	4.78	6.33	4.67	7.50	*	0.98	
Capture Rate / Homicide Rate	**0.351**	0.181	0.339	0.179	0.339	0.179	3.79	*	0.00	
Homicide rate in previous neighborhood	**86.5**	163.6	139.8	153.5	146.2	152.9	-19.6	*	-2.2	*
Distance to crime	**466.0**	379.2	377.1	278.7	363.4	260.4	15.4	*	2.7	*
Years living in this place	3.7	2.6	38.8	18.4	25.8	13.0	-166	*	46	*
Safe neighborhood	0.8668	0.3398	0.8744	0.3314	0.8655	0.3412	-1.32		1.43	
Victim of offense	**0.0918**	0.2888	0.0713	0.2573	0.0917	0.2886	4.37	*	-3.97	*
Household income	**933,132**	3,407,075	701,320	1,484,833	587,428	1,532,429	4.98	*	4.06	*
Number of persons in household	3.71	1.69	3.86	1.73	3.79	1.90	-4.89	*	1.89	
Age	**45.89**	14.76	52.49	15.47	58.44	14.76	-25.6	*	-21.4	*
Age^2	2,324	1,467	2,995	1,702	3,634	1,731	-24.9	*	-20.0	*
Socioeconomic stratum 1	0.1038	0.3050	0.0880	0.2834	0.1439	0.3510	3.13	*	-9.22	*
Socioeconomic stratum 2	0.2821	0.4501	0.3730	0.4836	0.4012	0.4902	-11.4	*	-3.1	*
Socioeconomic stratum 3	0.2875	0.4526	0.3513	0.4774	0.2799	0.4490	-8.1	*	8.4	*
Socioeconomic stratum 4	0.1471	0.3542	0.0900	0.2862	0.0876	0.2827	10.3	*	0.5	
Socioeconomic stratum 5 or 6	**0.1796**	0.3839	0.0977	0.2969	0.0874	0.2824	13.8	*	1.9	
Male	0.6609	0.4735	0.6063	0.4886	0.5656	0.4957	6.6	*	4.5	*
Household head with primary	0.2641	0.4409	0.3496	0.4769	0.3671	0.4821	-11.0	*	-2.0	*
Household head with secondary	0.3382	0.4731	0.3189	0.4661	0.2157	0.4113	2.4	*	12.9	*
Hhold head with technique education	0.0739	0.2617	0.0514	0.2209	0.0360	0.1863	5.4	*	4.2	*
Household head single	0.1822	0.3860	0.1692	0.3750	0.1557	0.3626	1.98	*	1.99	*
Household head married	0.3913	0.4881	0.4249	0.4944	0.4097	0.4918	-4.0	*	1.7	
Household head separated	0.1087	0.3113	0.1062	0.3081	0.1064	0.3084	0.47		-0.04	
Household head lives with partner	0.2280	0.4196	0.1475	0.3546	0.1204	0.3254	12.0	*	4.3	*
Employed	**0.6924**	0.4615	0.5825	0.4932	0.4832	0.4998	13.5	*	10.8	*
Unemployed	0.0361	0.1865	0.0343	0.1820	0.0210	0.1434	0.57		4.51	*
Household occupation Rate	**0.4200**	0.2885	0.3857	0.2701	0.3619	0.2791	7.2	*	4.6	*
Household unemployment Rate	0.0430	0.1282	0.0421	0.1243	0.0415	0.1207	0.42		0.28	
Homeownership, house totally paid	**0.3513**	0.4774	0.6642	0.4723	0.6978	0.4593	-38.6	*	-3.9	*
Homeownership, house partially paid	0.0676	0.2511	0.0294	0.1689	0.0326	0.1775	10.2	*	-1.0	
Tenant	0.5413	0.4983	0.2349	0.4239	0.2037	0.4028	38.4	*	4.1	*
House with fixed phone line	0.8994	0.3008	0.9096	0.2867	0.9163	0.2770	-2.03	*	-1.27	
House with electricity	0.9612	0.1932	0.9704	0.1696	0.9694	0.1723	-2.94	*	0.31	
House with aqueduct	0.9483	0.2214	0.9546	0.2081	0.9537	0.2101	-1.71		0.23	
House with sewerage	0.9573	0.2023	0.9640	0.1862	0.9621	0.1910	-2.03	*	0.56	
House with gas for cooking	0.4708	0.4992	0.4537	0.4979	0.4498	0.4975	2.00	*	0.43	
House with natural gas	0.4847	0.4998	0.4771	0.4995	0.4616	0.4986	0.90		1.68	
House with internet	**0.3562**	0.4789	0.2824	0.4502	0.2388	0.4264	9.3	*	5.4	*
House with cable TV	**0.7124**	0.4527	0.6854	0.4644	0.6592	0.4740	3.5	*	3.0	*
Number of rooms in household	0.3763	0.7192	0.3038	0.6969	0.4080	0.7922	6.0	*	-7.4	*
Enrolled in private health insurance	**0.7275**	0.4453	0.6968	0.4597	0.6815	0.4659	4.0	*	1.8	
Enrolled in public health insurance	**0.1609**	0.3674	0.2044	0.4033	0.2354	0.4243	-6.6	*	-4.0	*
Enrolled in pension fund	**0.2694**	0.4437	0.2212	0.4151	0.1656	0.3717	6.5	*	7.7	*
Good health	**0.8721**	0.3341	0.8485	0.3586	0.7377	0.4399	4.0	*	14.5	*
Educational attainment	**8.95**	5.12	7.72	4.85	6.06	5.01	14	*	18	*
Number of observations	6,154		7,747		4,669					

Table 5. Life satisfaction models. Dependent variable equal to one if satisfied or very satisfied.

Variable	All Sample												Living in Current Neighborhood 10 or More Years Ago											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	0.006*	0.004	0.007***	0.004	0.002	0.006	0.003	0.006	0.001	0.005	0.004	0.007	0.006	0.005	-0.006	0.005	-0.007	0.005	-0.007	0.006	-0.009*	0.006	-0.003	0.009
Capture Rate / Homicide Rate	0.032	0.153	0.207	0.150	0.120	0.228	0.106	0.228	0.098	0.210	-0.170	0.242	-0.053	0.171	-0.058	0.283	-0.073	0.283	-0.103	0.284	-0.069	0.269	-0.496**	0.296
Distance to crime	**0.000***	**0.000**	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	0.000*	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
Years living in this place	-0.000	0.001	0.001*	0.001	0.001***	0.001	0.002***	0.001	0.002***	0.001	0.002***	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002***	0.001	0.002**	0.001
Safe neighborhood	**0.314***	**0.035**	**0.290***	**0.034**	**0.272***	**0.032**					**0.253***	**0.037**	**0.288***	**0.043**	**0.256***	**0.041**	**0.245***	**0.040**					**0.193***	**0.044**
Victim of offense	**-0.198***	**0.041**	**-0.231***	**0.045**	**-0.213***	**0.047**	**-0.270***	**0.047**	**-0.305***	**0.048**	**-0.238***	**0.049**	**-0.139***	**0.052**	**-0.171***	**0.056**	**-0.146***	**0.054**	**-0.200***	**0.054**	**-0.230***	**0.054**	**-0.160***	**0.061**
Household income	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000**	0.000
Number of persons in household	-0.067***	0.007	-0.069***	0.007	-0.069***	0.007	-0.069***	0.007	-0.082***	0.007	-0.071***	0.008	-0.063***	0.009	-0.066***	0.009	-0.062***	0.009	-0.062***	0.009	-0.079***	0.009	-0.069***	0.009
Age	-0.003	0.004	-0.005	0.004	-0.010***	0.005	-0.010***	0.005	-0.017***	0.005	-0.017***	0.005	0.002	0.005	-0.002	0.005	-0.004	0.006	-0.004	0.006	-0.012***	0.006	-0.011**	0.006
Age2	0.000**	0.000	0.000	0.000	0.000**	0.000	0.000**	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000**	0.000	0.000**	0.000
Male	0.093***	0.030	0.096***	0.032	0.118***	0.033	0.121***	0.033	0.131***	0.033	0.119***	0.036	0.082***	0.035	0.090***	0.037	0.106***	0.037	0.108***	0.037	0.115***	0.036	0.105***	0.040
Household head with primary	-0.105***	0.030	-0.065***	0.031	-0.064**	0.033	-0.063**	0.033	-0.015	0.034	-0.042	0.037	-0.094***	0.038	-0.036	0.040	-0.037	0.040	-0.036	0.040	0.022	0.041	-0.005	0.042
Household head with secondary	-0.084***	0.040	-0.036	0.040	-0.041	0.042	-0.037	0.042	0.035	0.046	-0.019	0.051	-0.077	0.055	-0.016	0.056	-0.024	0.056	-0.020	0.056	0.072	0.058	-0.012	0.063
Hhold head with technique education	0.010	0.073	0.048	0.075	0.016	0.077	0.014	0.077	0.063	0.079	-0.026	0.092	0.024	0.096	0.083	0.105	0.069	0.105	0.062	0.104	0.140	0.109	0.045	0.123
Household head single	-0.243***	0.041	-0.232***	0.040	-0.240***	0.042	-0.235***	0.041	-0.186***	0.043	-0.152***	0.047	-0.260***	0.046	-0.257***	0.046	-0.253***	0.047	-0.249***	0.047	-0.195***	0.050	-0.153***	0.055
Household head married	0.050	0.041	0.058	0.043	0.031	0.044	0.029	0.044	-0.004	0.045	0.004	0.051	0.060	0.050	0.058	0.051	0.030	0.051	0.029	0.051	-0.005	0.052	0.005	0.057
Household head separated	-0.240***	0.043	-0.237***	0.046	-0.252***	0.048	-0.252***	0.048	-0.232***	0.049	-0.185***	0.050	-0.291***	0.050	-0.305***	0.053	-0.298***	0.052	-0.298***	0.052	-0.280***	0.054	-0.235***	0.057
Household head lives with partner	-0.199***	0.046	-0.141***	0.047	-0.137***	0.049	-0.137***	0.050	-0.109***	0.051	-0.067	0.055	-0.170***	0.058	-0.115**	0.060	-0.125***	0.058	-0.124***	0.058	-0.101**	0.060	-0.072	0.064
Educational attainment	0.071***	0.004	0.052***	0.004	0.044***	0.004	0.044***	0.004	0.027***	0.004	0.021***	0.005	0.068***	0.005	0.045***	0.005	0.043***	0.005	0.043***	0.005	0.024***	0.005	0.019***	0.006
House with fixed phone line					0.397***	0.046	0.396***	0.046	0.293***	0.046	0.247***	0.051					0.441***	0.061	0.439***	0.060	0.335***	0.059	0.285***	0.066
House with electricity					-0.166	0.121	-0.178*	0.119	-0.183*	0.116	-0.202*	0.136					-0.143	0.140	-0.154	0.138	-0.168	0.133	-0.193	0.165
House with aqueduct					0.407***	0.074	0.418***	0.073	0.363***	0.075	0.324***	0.074					0.422***	0.092	0.435***	0.091	0.367***	0.095	0.333***	0.095
House with sewerage					-0.048	0.107	-0.038	0.105	-0.045	0.104	-0.030	0.121					-0.079	0.126	-0.070	0.124	-0.091	0.122	-0.079	0.145
Number of rooms in household					-0.044***	0.020	-0.047***	0.020	-0.052***	0.021	-0.042**	0.023					-0.030	0.023	-0.033	0.023	-0.042**	0.024	-0.022	0.027
Socioeconomic stratum 2									0.037	0.068	-0.007	0.071									-0.010	0.087	-0.051	0.091
Socioeconomic stratum 3									0.163**	0.088	0.058	0.097									0.104	0.106	0.010	0.111
Socioeconomic stratum 4									0.568***	0.133	0.413***	0.146									0.451***	0.165	0.289*	0.180
Socioeconomic stratum 5 or 6									0.885***	0.156	0.681***	0.166									0.897***	0.183	0.744***	0.196
Homeownership, house totally paid									0.296***	0.047	0.254***	0.051									0.230***	0.050	0.172***	0.055
Homeownership, house partially paid									0.117*	0.073	0.063	0.080									0.030	0.098	-0.032	0.112
Tenant									0.233***	0.056	0.202***	0.062									0.196***	0.064	0.142***	0.068
House with gas for cooking									-0.021	0.067	0.015	0.068									-0.088	0.086	-0.052	0.086
House with natural gas									0.200***	0.071	0.173***	0.074									0.274***	0.095	0.228***	0.095
House with internet									0.359***	0.034	0.310***	0.036									0.404***	0.041	0.330***	0.045
House with cable TV									0.328***	0.029	0.292***	0.031									0.343***	0.035	0.305***	0.038
Employed											-0.181***	0.040											-0.182***	0.050
Unemployed											-0.484***	0.086											-0.438***	0.103
Household occupation Rate											0.382***	0.067											0.334***	0.082
Household unemployment Rate											-0.420***	0.127											-0.500***	0.156
Enrolled in private health insurance											0.251***	0.046											0.260***	0.058
Enrolled in public health insurance											-0.115***	0.046											-0.141***	0.060
Enrolled in pension fund											0.103***	0.040											0.084**	0.049
Good health											0.539***	0.035											0.572***	0.041
Constant	0.114	0.145	0.362***	0.150	-0.342	0.388	-0.130	0.396	-0.053	0.393	-0.421	0.449	-0.012	0.183	-0.579***	0.218	-0.275	0.292	-0.838***	0.236	-0.245	0.326	-1.631***	0.755
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	18,715		18,250		17,936		17,936		17,936		15,228		12,521		11,894		11,894		11,894		11,894		9,875	

Table 6. Life satisfaction models. Dependent variable equal to one if satisfied or very satisfied.

Variable	Living in Current Neighborhood 10 or More Years Ago, Movers												Living in Current Neighborhood 10 or More Years Ago, Always in Current Neighborhood											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	-0.004	0.005	**-0.027*** **	**0.011**	**-0.028*** **	**0.011**	**-0.027*** **	**0.011**	**-0.029*** **	**0.011**	**-0.026** **	**0.014**	0.012*	0.007	-0.000	0.008	-0.002	0.008	-0.001	0.008	-0.005	0.009	-0.003	0.010
Capture Rate / Homicide Rate	-0.063	0.235	**0.987*** **	**0.364**	**0.919*** **	**0.358**	**0.886*** **	**0.358**	**0.906*** **	**0.363**	**0.513**	**0.435**	-0.035	0.165	-0.306	0.353	-0.301	0.348	-0.340	0.348	-0.334	0.361	**-0.814*** **	**0.409**
Distance to crime	**0.000*** **	**0.000**	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000
Years living in this place	-0.002	0.002	-0.000	0.002	-0.000	0.002	0.000	0.002	0.000	0.002	-0.001	0.002	-0.001	0.001	0.000	0.001	0.000	0.001	0.001	0.001	0.002*	0.001	0.002*	0.001
Safe neighborhood	**0.218*** **	**0.069**	**0.198*** **	**0.070**	**0.196*** **	**0.072**					**0.148** **	**0.077**	**0.341*** **	**0.053**	**0.316*** **	**0.058**	**0.297*** **	**0.058**					**0.245*** **	**0.070**
Victim of offense	**-0.098* **	**0.066**	**-0.113* **	**0.077**	**-0.077**	**0.077**	**-0.112* **	**0.076**	**-0.117* **	**0.077**	**-0.086**	**0.092**	**-0.151*** **	**0.069**	**-0.202*** **	**0.077**	**-0.185*** **	**0.075**	**-0.258*** **	**0.073**	**-0.315*** **	**0.073**	**-0.199*** **	**0.085**
Household income	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
Number of persons in household	-0.067***	0.014	-0.075***	0.014	-0.073***	0.014	-0.073***	0.014	-0.091***	0.014	-0.085***	0.014	-0.063***	0.010	-0.062***	0.011	-0.057***	0.011	-0.057***	0.011	-0.074***	0.011	-0.061***	0.013
Age	0.007	0.010	0.001	0.011	-0.001	0.011	-0.002	0.011	-0.013	0.011	-0.011	0.012	0.001	0.007	-0.001	0.007	-0.002	0.007	-0.002	0.007	-0.008	0.007	-0.008	0.008
Age2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Male	0.047	0.058	0.089	0.065	0.115**	0.066	0.112**	0.066	0.125**	0.065	0.169***	0.072	0.104***	0.052	0.088**	0.052	0.096**	0.051	0.099***	0.050	0.105***	0.050	0.077	0.055
Household head with primary	-0.106***	0.051	-0.039	0.061	-0.039	0.060	-0.042	0.060	0.012	0.062	-0.036	0.068	-0.097**	0.053	-0.026	0.057	-0.029	0.058	-0.024	0.057	0.043	0.058	0.034	0.059
Household head with secondary	-0.060	0.088	-0.029	0.107	-0.031	0.107	-0.035	0.107	0.037	0.112	-0.047	0.119	-0.094*	0.065	-0.000	0.069	-0.017	0.067	-0.006	0.067	0.093	0.068	0.007	0.073
Hhold head with technique education	-0.039	0.147	-0.024	0.179	-0.019	0.180	-0.035	0.176	0.022	0.188	-0.059	0.241	0.037	0.118	0.138	0.129	0.111	0.130	0.108	0.129	0.205*	0.133	0.106	0.146
Household head single	-0.149***	0.071	-0.192***	0.078	-0.195***	0.079	-0.193***	0.078	-0.119*	0.080	-0.129*	0.089	-0.333***	0.065	-0.329***	0.071	-0.319***	0.072	-0.311***	0.072	-0.268***	0.076	-0.179***	0.083
Household head married	0.123*	0.081	0.066	0.089	0.029	0.090	0.032	0.090	-0.017	0.089	-0.087	0.102	0.012	0.072	0.024	0.074	0.005	0.075	0.003	0.074	-0.037	0.076	0.030	0.085
Household head separated	-0.309***	0.081	-0.367***	0.088	-0.359***	0.089	-0.353***	0.089	-0.323***	0.092	-0.327***	0.094	-0.284***	0.066	-0.287***	0.069	-0.276***	0.069	-0.282***	0.070	-0.274***	0.073	-0.176***	0.082
Household head lives with partner	-0.065	0.099	-0.049	0.108	-0.066	0.106	-0.064	0.106	-0.056	0.109	-0.118	0.121	-0.247***	0.077	-0.169***	0.080	-0.173***	0.080	-0.173***	0.080	-0.151**	0.082	-0.064	0.088
Educational attainment	0.066***	0.008	0.041***	0.010	0.039***	0.010	0.039***	0.010	0.022***	0.010	0.017	0.012	0.067***	0.006	0.049***	0.007	0.047***	0.006	0.047***	0.006	0.027***	0.006	0.023***	0.007
House with fixed phone line					0.447***	0.085	0.443***	0.084	0.302***	0.086	0.282***	0.099					0.456***	0.077	0.456***	0.076	0.360***	0.076	0.302***	0.085
House with electricity					-0.204	0.208	-0.213	0.207	-0.188	0.210	-0.337	0.291					-0.064	0.211	-0.076	0.208	-0.108	0.196	-0.117	0.220
House with aqueduct					0.391***	0.146	0.397***	0.147	0.345***	0.154	0.364***	0.165					0.441***	0.110	0.464***	0.108	0.398***	0.111	0.342***	0.112
House with sewerage					-0.166	0.193	-0.147	0.192	-0.147	0.193	-0.100	0.224					-0.064	0.168	-0.064	0.165	-0.107	0.156	-0.105	0.180
Number of rooms in household					-0.032	0.035	-0.033	0.035	-0.043	0.035	-0.032	0.039					-0.037	0.031	-0.041	0.031	-0.051*	0.032	-0.019	0.037
Socioeconomic stratum 2									-0.010	0.092	-0.070	0.095									-0.013	0.136	-0.051	0.144
Socioeconomic stratum 3									-0.017	0.158	-0.130	0.167									0.186	0.147	0.107	0.154
Socioeconomic stratum 4									0.405**	0.243	0.231	0.262									0.534***	0.210	0.416**	0.236
Socioeconomic stratum 5 or 6									1.178***	0.295	1.194***	0.346									0.749***	0.232	0.560***	0.262
Homeownership, house totally paid									0.273***	0.099	0.210***	0.104									0.199***	0.060	0.141***	0.068
Homeownership, house partially paid									0.141	0.159	0.084	0.173									-0.053	0.128	-0.150	0.145
Tenant									0.198**	0.115	0.114	0.123									0.201***	0.074	0.175***	0.082
House with gas for cooking									-0.161	0.142	-0.181	0.158									-0.066	0.103	0.005	0.109
House with natural gas									0.340***	0.156	0.390***	0.167									0.280***	0.110	0.191**	0.114
House with internet									0.366***	0.077	0.329***	0.092									0.449***	0.052	0.354***	0.059
House with cable TV									0.411***	0.055	0.373***	0.063									0.321***	0.051	0.279***	0.057
Employed											-0.119*	0.078											-0.239***	0.063
Unemployed											-0.224	0.191											-0.552***	0.129
Household occupation Rate											0.385***	0.117											0.308***	0.110
Household unemployment Rate											-0.652***	0.290											-0.504***	0.197
Enrolled in private health insurance											0.185***	0.081											0.339***	0.074
Enrolled in public health insurance											-0.247***	0.096											-0.078	0.074
Enrolled in pension fund											0.035	0.091											0.077	0.063
Good health											0.627***	0.063											0.557***	0.058
Constant	-0.155	0.339	-0.426	1.017	-0.802	1.023	-0.700	0.985	-0.757	0.992	-0.891	0.817	0.079	0.213	0.666***	0.220	0.511***	0.224	0.604***	0.221	0.870***	0.258	-1.751***	0.790
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	4,705		4,251		4,251		4,251		4,251		3,567		7,811		7,181		7,181		7,181		7,181		5,897	

Table 7. Life satisfaction models. Dependent variable equal to one if very satisfied.

Variable	All Sample												Living in Current Neighborhood 10 or More Years Ago											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	**-0.008****	**0.004**	**-0.006****	**0.003**	0.000	0.004	0.000	0.004	0.002	0.005	0.003	0.005	-0.004	0.006	-0.003	0.009	-0.003	0.009	-0.002	0.009	-0.001	0.009	0.007	0.011
Capture Rate / Homicide Rate	**0.272****	**0.158**	**0.374*****	**0.152**	-0.076	0.209	-0.088	0.210	-0.057	0.220	0.039	0.254	0.156	0.165	-0.236	0.235	-0.219	0.236	-0.242	0.236	-0.181	0.237	-0.177	0.315
Distance to crime	**0.000*****	**0.000**	**0.000*****	**0.000**	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000**	0.000	0.000***	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000
Years living in this place	**-0.002*****	**0.001**	**-0.002****	**0.001**	-0.000	0.001	-0.000	0.001	-0.000	0.001	-0.001	0.001	**-0.003*****	**0.001**	**-0.002***	**0.001**	**-0.002***	**0.001**	-0.002	0.001	-0.002	0.001	-0.002	0.002
Safe neighborhood	**0.113*****	**0.044**	**0.155*****	**0.048**	**0.161*****	**0.052**					**0.134*****	**0.060**	**0.103****	**0.057**	**0.164*****	**0.065**	**0.165*****	**0.064**					**0.134****	**0.076**
Victim of offense	0.002	0.050	0.012	0.051	0.008	0.052	-0.026	0.053	-0.039	0.055	0.016	0.061	-0.035	0.065	-0.032	0.070	-0.033	0.071	-0.065	0.071	-0.076	0.074	0.034	0.085
Household income	0.000**	0.000	0.000*	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000
Number of persons in household	-0.051***	0.010	-0.046***	0.011	-0.047***	0.012	-0.047***	0.012	-0.058***	0.012	-0.058***	0.013	-0.046***	0.013	-0.041***	0.014	-0.042***	0.014	-0.043***	0.014	-0.058***	0.014	-0.058***	0.015
Age	-0.000	0.005	-0.006	0.005	-0.007	0.006	-0.007	0.006	-0.012***	0.006	-0.010*	0.006	0.007	0.008	-0.003	0.008	-0.004	0.008	-0.004	0.008	-0.011	0.008	-0.007	0.009
Age2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000**	0.000	0.000**	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Male	0.062*	0.038	0.063*	0.041	0.076**	0.042	0.077**	0.042	0.084***	0.042	0.058	0.046	0.055	0.048	0.063	0.051	0.067	0.051	0.067	0.051	0.067	0.052	0.042	0.060
Household head with primary	-0.097***	0.041	-0.071*	0.043	-0.051	0.043	-0.051	0.043	-0.024	0.043	-0.041	0.046	-0.079**	0.047	-0.039	0.051	-0.038	0.051	-0.040	0.051	-0.007	0.051	-0.025	0.053
Household head with secondary	-0.093***	0.040	-0.080***	0.040	-0.052	0.039	-0.050	0.039	-0.015	0.038	-0.053	0.042	-0.068	0.049	-0.024	0.053	-0.020	0.052	-0.020	0.052	0.028	0.054	-0.005	0.057
Hhold head with technique education	-0.012	0.058	-0.009	0.057	-0.029	0.060	-0.031	0.061	-0.011	0.062	-0.042	0.067	0.020	0.083	0.014	0.084	0.019	0.085	0.014	0.085	0.050	0.087	0.037	0.095
Household head single	-0.142***	0.057	-0.143***	0.060	-0.158***	0.064	-0.156***	0.064	-0.132***	0.064	-0.138**	0.072	-0.122*	0.075	-0.136**	0.081	-0.140**	0.081	-0.138**	0.081	-0.107	0.081	-0.123	0.090
Household head married	0.049	0.054	0.070	0.060	0.063	0.061	0.063	0.061	0.043	0.062	0.069	0.070	0.074	0.064	0.100	0.072	0.096	0.072	0.099	0.072	0.087	0.074	0.099	0.084
Household head separated	-0.060	0.062	-0.032	0.066	-0.024	0.069	-0.022	0.069	0.006	0.070	0.019	0.077	-0.046	0.077	-0.031	0.086	-0.032	0.086	-0.028	0.085	-0.001	0.087	0.053	0.095
Household head lives with partner	-0.228***	0.074	-0.181***	0.079	-0.159**	0.082	-0.158**	0.082	-0.113	0.082	-0.090	0.087	-0.147*	0.091	-0.124	0.100	-0.120	0.100	-0.116	0.100	-0.074	0.100	-0.101	0.109
Educational attainment	0.054***	0.004	0.040***	0.004	0.032***	0.004	0.032***	0.004	0.021***	0.005	0.016***	0.005	0.052***	0.005	0.033***	0.005	0.032***	0.005	0.032***	0.005	0.021***	0.005	0.014***	0.006
House with fixed phone line					0.270***	0.079	0.271***	0.079	0.202***	0.082	0.236***	0.087					0.215***	0.102	0.216***	0.102	0.142	0.106	0.177*	0.109
House with electricity					-0.137	0.157	-0.147	0.157	-0.158	0.158	-0.219	0.176					-0.152	0.191	-0.165	0.191	-0.178	0.194	-0.298*	0.202
House with aqueduct					0.014	0.119	0.021	0.118	0.000	0.121	0.010	0.133					0.043	0.132	0.055	0.132	0.029	0.136	0.054	0.151
House with sewerage					0.185	0.146	0.187	0.145	0.171	0.147	0.161	0.164					0.253*	0.172	0.255*	0.172	0.252	0.179	0.238	0.189
Number of rooms in household					0.090***	0.027	0.088***	0.027	0.083***	0.027	0.080***	0.030					0.072***	0.032	0.070***	0.032	0.065***	0.032	0.066**	0.035
Socioeconomic stratum 2									0.121	0.119	0.039	0.124									0.079	0.116	0.032	0.126
Socioeconomic stratum 3									0.325***	0.160	0.265*	0.166									0.215	0.153	0.198	0.161
Socioeconomic stratum 4									0.318**	0.172	0.246	0.178									0.161	0.175	0.105	0.184
Socioeconomic stratum 5 or 6									0.689***	0.176	0.657***	0.179									0.635***	0.207	0.686***	0.214
Homeownership, house totally paid									0.206***	0.070	0.191***	0.083									0.137**	0.083	0.136	0.098
Homeownership, house partially paid									0.122	0.102	0.059	0.119									0.070	0.131	-0.012	0.158
Tenant									0.048	0.075	0.018	0.088									-0.004	0.092	-0.044	0.110
House with gas for cooking									-0.000	0.086	-0.005	0.094									0.029	0.110	0.007	0.122
House with natural gas									0.084	0.087	0.087	0.093									0.060	0.107	0.057	0.116
House with internet									0.230***	0.043	0.196***	0.046									0.278***	0.050	0.254***	0.053
House with cable TV									0.097***	0.048	0.049	0.053									0.083*	0.055	0.016	0.061
Employed											-0.087**	0.049											-0.047	0.064
Unemployed											-0.178	0.143											-0.055	0.175
Household occupation Rate											0.114**	0.060											0.013	0.080
Household unemployment Rate											-0.255*	0.163											-0.425**	0.218
Enrolled in private health insurance											0.080	0.059											0.081	0.088
Enrolled in public health insurance											-0.138***	0.069											-0.108	0.095
Enrolled in pension fund											0.095***	0.045											0.133***	0.063
Good health											0.286***	0.055											0.301***	0.066
Constant	-1.891***	0.172	-1.637***	0.189	-2.779***	0.349	-2.628***	0.346	-2.609***	0.385	-2.784***	0.413	-2.143***	0.249	-0.152	0.306	-0.306	0.322	-0.132	0.317	-0.461	0.375	-1.526***	0.516
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	18,715		17,651		17,029		17,029		17,029		14,172		12,521		11,263		11,263		11,263		11,263		9,192	

Table 8. Life satisfaction models. Dependent variable equal to one if very satisfied.

Variable	Living in Current Neighborhood 10 or More Years Ago, Movers												Living in Current Neighborhood 10 or More Years Ago, Always in Current Neighborhood											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	-0.010	0.008	**-0.028****	**0.015**	**-0.028****	**0.015**	**-0.028****	**0.015**	**-0.026****	**0.014**	-0.015	0.019	-0.001	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.011	0.010	**0.016***	**0.010**
Capture Rate / Homicide Rate	0.175	0.214	-0.214	0.357	-0.229	0.358	-0.233	0.359	-0.278	0.362	-0.108	0.425	0.139	0.179	-0.104	0.322	-0.075	0.322	-0.116	0.323	-0.000	0.333	-0.100	0.407
Distance to crime	**0.000*****	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000***	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000
Years living in this place	-0.003	0.002	-0.001	0.003	-0.001	0.003	-0.001	0.003	-0.001	0.003	-0.005**	0.003	-0.003***	0.001	-0.002	0.002	-0.002	0.002	-0.002	0.002	-0.001	0.002	-0.002	0.002
Safe neighborhood	**0.134***	**0.083**	**0.192*****	**0.095**	**0.193*****	**0.095**					**0.156***	**0.107**	**0.094**	**0.072**	**0.180*****	**0.083**	**0.183*****	**0.082**					0.133	0.100
Victim of offense	-0.041	0.082	-0.039	0.094	-0.041	0.095	-0.079	0.092	-0.097	0.094	0.013	0.120	-0.029	0.091	-0.029	0.097	-0.028	0.098	-0.063	0.099	-0.070	0.102	0.029	0.114
Household income	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000**	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000
Number of persons in household	-0.048***	0.016	-0.047***	0.018	-0.048***	0.018	-0.050***	0.018	-0.067***	0.019	-0.073***	0.021	-0.044***	0.018	-0.038**	0.020	-0.040***	0.020	-0.040***	0.020	-0.053***	0.021	-0.049***	0.021
Age	0.002	0.014	-0.011	0.017	-0.011	0.017	-0.012	0.017	-0.022	0.017	-0.018	0.018	0.007	0.009	-0.002	0.010	-0.003	0.010	-0.003	0.010	-0.009	0.010	-0.007	0.011
Age2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Male	0.041	0.083	0.043	0.097	0.055	0.098	0.056	0.098	0.059	0.099	0.006	0.113	0.062	0.062	0.068	0.064	0.065	0.064	0.064	0.064	0.059	0.064	0.066	0.076
Household head with primary	-0.100	0.073	-0.063	0.081	-0.067	0.082	-0.073	0.083	-0.051	0.084	-0.093	0.088	-0.057	0.060	-0.006	0.069	-0.006	0.070	-0.005	0.069	0.039	0.070	0.061	0.076
Household head with secondary	0.094	0.089	0.129	0.095	0.126	0.095	0.122	0.096	0.149*	0.098	0.137	0.104	-0.141***	0.052	-0.080	0.061	-0.074	0.060	-0.071	0.060	-0.006	0.062	-0.040	0.071
Hhold head with technique education	0.109	0.131	-0.008	0.146	-0.012	0.144	-0.031	0.144	-0.015	0.148	-0.086	0.171	-0.017	0.095	0.000	0.102	0.009	0.103	0.010	0.103	0.067	0.108	0.067	0.123
Household head single	-0.181**	0.110	-0.196*	0.128	-0.199*	0.128	-0.198*	0.128	-0.172	0.127	-0.082	0.139	-0.071	0.103	-0.074	0.109	-0.078	0.107	-0.076	0.106	-0.030	0.106	-0.077	0.123
Household head married	0.067	0.097	0.107	0.115	0.096	0.116	0.095	0.116	0.071	0.119	0.116	0.132	0.095	0.084	0.142*	0.093	0.143*	0.092	0.149*	0.092	0.155**	0.093	0.161*	0.112
Household head separated	-0.210**	0.118	-0.228**	0.138	-0.229**	0.139	-0.222*	0.138	-0.205*	0.139	-0.143	0.156	0.056	0.099	0.096	0.109	0.092	0.108	0.095	0.107	0.133	0.110	0.195*	0.127
Household head lives with partner	-0.142	0.138	-0.107	0.168	-0.108	0.169	-0.108	0.167	-0.092	0.167	-0.168	0.189	-0.132	0.115	-0.107	0.128	-0.101	0.127	-0.094	0.127	-0.025	0.126	-0.047	0.144
Educational attainment	0.046***	0.007	0.025***	0.008	0.023***	0.008	0.023***	0.008	0.015**	0.009	0.005	0.010	0.055***	0.006	0.040***	0.006	0.039***	0.006	0.038***	0.006	0.025***	0.007	0.019***	0.008
House with fixed phone line					0.331**	0.175	0.332**	0.175	0.266*	0.180	0.322*	0.198					0.178	0.130	0.182	0.130	0.086	0.137	0.121	0.143
House with electricity					-0.095	0.352	-0.115	0.351	-0.115	0.355	-0.006	0.395					-0.193	0.240	-0.204	0.240	-0.218	0.247	-0.498**	0.255
House with aqueduct					-0.037	0.231	-0.021	0.233	-0.019	0.238	-0.058	0.257					0.101	0.168	0.115	0.167	0.077	0.173	0.105	0.204
House with sewerage					-0.048	0.255	-0.027	0.253	-0.025	0.260	-0.154	0.276					0.472***	0.234	0.463***	0.233	0.456**	0.245	0.553***	0.252
Number of rooms in household					0.053	0.046	0.052	0.046	0.046	0.047	0.035	0.055					0.087***	0.041	0.084***	0.041	0.081**	0.042	0.085**	0.046
Socioeconomic stratum 2									-0.097	0.145	-0.094	0.169									0.346*	0.219	0.275	0.216
Socioeconomic stratum 3									0.080	0.216	0.095	0.253									0.458**	0.236	0.427**	0.232
Socioeconomic stratum 4									-0.024	0.252	0.085	0.263									0.419*	0.264	0.258	0.271
Socioeconomic stratum 5 or 6									0.318	0.269	0.412	0.313									0.977***	0.292	0.933***	0.290
Homeownership, house totally paid									0.097	0.139	0.015	0.157									0.195**	0.112	0.238**	0.136
Homeownership, house partially paid									0.156	0.229	0.115	0.257									0.047	0.181	-0.101	0.222
Tenant									-0.084	0.149	-0.186	0.172									0.061	0.124	0.070	0.147
House with gas for cooking									0.142	0.218	0.115	0.242									0.010	0.135	-0.013	0.160
House with natural gas									-0.049	0.209	-0.056	0.233									0.075	0.134	0.079	0.152
House with internet									0.233***	0.080	0.253***	0.092									0.322***	0.067	0.299***	0.071
House with cable TV									0.099	0.081	0.084	0.089									0.073	0.069	-0.050	0.076
Employed											-0.005	0.114											-0.087	0.079
Unemployed											0.391	0.299											-0.275	0.259
Household occupation Rate											-0.145	0.158											0.125	0.102
Household unemployment Rate											-0.364	0.370											-0.531*	0.329
Enrolled in private health insurance											0.020	0.161											0.111	0.111
Enrolled in public health insurance											-0.223	0.161											-0.085	0.126
Enrolled in pension fund											0.063	0.098											0.169***	0.085
Good health											0.364***	0.099											0.276***	0.090
Constant	-1.936***	0.429	0.263	0.512	0.168	0.563	0.371	0.552	0.409	0.604	0.774	1.452	-2.187***	0.285	-0.870***	0.364	-1.129***	0.447	-0.908***	0.445	-2.034***	0.564	-2.777***	0.586
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	4,705		3,579		3,579		3,579		3,579		2,848		7,811		6,385		6,385		6,385		6,385		5,124	

Table 9. Life satisfaction models. Dependent variable equal to one if satisfied. The role of the type of victimization

Variable	All Sample												Living in Current Neighborhood 10 or More Years Ago											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	0.006*	0.004	0.007***	0.004	0.002	0.006	0.003	0.006	0.001	0.005	0.004	0.007	0.006	0.005	-0.006	0.005	-0.007	0.005	-0.007	0.006	-0.009*	0.006	-0.003	0.009
Capture Rate / Homicide Rate	0.031	0.153	0.205	0.149	0.120	0.227	0.106	0.227	0.098	0.210	-0.169	0.243	-0.053	0.171	-0.059	0.283	-0.072	0.284	-0.103	0.284	-0.067	0.270	-0.493**	0.297
Distance to crime	0.000*	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	0.000*	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
Years living in this place	-0.000	0.001	0.001*	0.001	0.001**	0.001	0.002***	0.001	0.002***	0.001	0.002***	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002***	0.001	0.002**	0.001
Safe neighborhood	**0.316*** **	**0.035**	**0.291*** **	**0.034**	**0.273*** **	**0.032**					**0.252*** **	**0.036**	**0.289*** **	**0.042**	**0.257*** **	**0.041**	**0.245*** **	**0.040**					**0.192*** **	**0.044**
Victim of robbery, burglary, personal	**-0.161*** **	**0.048**	**-0.194*** **	**0.049**	**-0.188*** **	**0.052**	**-0.250*** **	**0.053**	**-0.310*** **	**0.055**	**-0.262*** **	**0.057**	**-0.125*** **	**0.060**	**-0.163*** **	**0.063**	**-0.151*** **	**0.060**	**-0.212*** **	**0.061**	**-0.263*** **	**0.064**	**-0.188*** **	**0.071**
Victim of other offenses	**-0.274*** **	**0.071**	**-0.310*** **	**0.079**	**-0.266*** **	**0.081**	**-0.312*** **	**0.080**	**-0.293*** **	**0.079**	**-0.191*** **	**0.083**	**-0.166** **	**0.085**	**-0.189*** **	**0.091**	**-0.137* **	**0.091**	**-0.174*** **	**0.089**	**-0.162** **	**0.087**	-0.103	0.098
Household income	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000**	0.000
Number of persons in household	-0.067***	0.007	-0.069***	0.007	-0.069***	0.007	-0.069***	0.007	-0.082***	0.007	-0.071***	0.008	-0.063***	0.009	-0.066***	0.009	-0.062***	0.009	-0.062***	0.009	-0.079***	0.009	-0.069***	0.009
Age	-0.003	0.004	-0.005	0.004	-0.010***	0.005	-0.010***	0.005	-0.017***	0.005	-0.017***	0.005	0.002	0.005	-0.002	0.005	-0.004	0.006	-0.004	0.006	-0.012***	0.006	-0.011**	0.006
Age2	0.000**	0.000	0.000	0.000	0.000**	0.000	0.000**	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000**	0.000	0.000**	0.000
Male	0.092***	0.030	0.096***	0.032	0.118***	0.033	0.120***	0.033	0.131***	0.033	0.119***	0.036	0.082***	0.035	0.090***	0.037	0.106***	0.037	0.108***	0.037	0.116***	0.036	0.106***	0.040
Household head with primary	-0.105***	0.030	-0.065***	0.031	-0.064**	0.033	-0.063**	0.033	-0.015	0.034	-0.042	0.037	-0.094***	0.038	-0.036	0.040	-0.037	0.040	-0.036	0.040	0.022	0.041	-0.005	0.042
Household head with secondary	-0.083***	0.040	-0.036	0.040	-0.041	0.042	-0.037	0.042	0.035	0.046	-0.019	0.051	-0.076	0.055	-0.016	0.056	-0.024	0.056	-0.020	0.056	0.071	0.058	-0.012	0.063
Hhold head with technique education	0.012	0.073	0.050	0.075	0.018	0.077	0.015	0.077	0.062	0.079	-0.027	0.092	0.024	0.096	0.084	0.105	0.069	0.105	0.061	0.104	0.138	0.109	0.043	0.123
Household head single	-0.243***	0.041	-0.232***	0.040	-0.240***	0.042	-0.235***	0.041	-0.186***	0.043	-0.152***	0.047	-0.260***	0.046	-0.257***	0.046	-0.253***	0.047	-0.249***	0.047	-0.195***	0.050	-0.153***	0.055
Household head married	0.050	0.041	0.058	0.043	0.031	0.044	0.030	0.044	-0.004	0.045	0.004	0.051	0.061	0.050	0.058	0.051	0.030	0.051	0.029	0.051	-0.006	0.052	0.005	0.057
Household head separated	-0.240***	0.043	-0.237***	0.045	-0.252***	0.048	-0.252***	0.048	-0.233***	0.049	-0.186***	0.050	-0.291***	0.050	-0.305***	0.053	-0.298***	0.053	-0.298***	0.052	-0.280***	0.054	-0.236***	0.057
Household head lives with partner	-0.198***	0.046	-0.140***	0.047	-0.137***	0.049	-0.137***	0.050	-0.109***	0.051	-0.067	0.055	-0.169***	0.058	-0.115**	0.060	-0.125***	0.058	-0.124***	0.058	-0.102**	0.060	-0.072	0.064
Educational attainment	0.070***	0.004	0.052***	0.004	0.044***	0.004	0.044***	0.004	0.027***	0.004	0.021***	0.005	0.068***	0.005	0.045***	0.005	0.043***	0.005	0.043***	0.005	0.024***	0.005	0.019***	0.006
House with fixed phone line					0.396***	0.046	0.396***	0.046	0.293***	0.046	0.248***	0.050					0.441***	0.061	0.439***	0.060	0.335***	0.059	0.286***	0.066
House with electricity					-0.167	0.121	-0.179*	0.119	-0.183*	0.116	-0.202*	0.136					-0.143	0.140	-0.154	0.138	-0.168	0.133	-0.193	0.165
House with aqueduct					0.407***	0.074	0.418***	0.074	0.363***	0.075	0.324***	0.074					0.422***	0.092	0.435***	0.091	0.368***	0.094	0.333***	0.094
House with sewerage					-0.047	0.107	-0.037	0.105	-0.045	0.104	-0.031	0.121					-0.079	0.126	-0.070	0.124	-0.092	0.122	-0.081	0.144
Number of rooms in household					-0.044***	0.020	-0.047***	0.020	-0.052***	0.021	-0.042**	0.023					-0.030	0.023	-0.034*	0.023	-0.043**	0.024	-0.023	0.026
Socioeconomic stratum 2									0.037	0.068	-0.006	0.071									-0.008	0.087	-0.049	0.091
Socioeconomic stratum 3									0.163**	0.089	0.061	0.098									0.108	0.106	0.013	0.111
Socioeconomic stratum 4									0.569***	0.133	0.416***	0.146									0.455***	0.166	0.292*	0.180
Socioeconomic stratum 5 or 6									0.886***	0.156	0.685***	0.166									0.901***	0.183	0.747***	0.196
Homeownership, house totally paid									0.296***	0.047	0.255***	0.051									0.230***	0.050	0.173***	0.055
Homeownership, house partially paid									0.118*	0.074	0.063	0.080									0.030	0.098	-0.032	0.112
Tenant									0.233***	0.057	0.203***	0.062									0.197***	0.064	0.142***	0.068
House with gas for cooking									-0.021	0.067	0.015	0.068									-0.088	0.085	-0.052	0.086
House with natural gas									0.200***	0.071	0.174***	0.074									0.275***	0.095	0.229***	0.095
House with internet									0.359***	0.034	0.311***	0.036									0.406***	0.042	0.332***	0.045
House with cable TV									0.328***	0.029	0.292***	0.031									0.343***	0.035	0.305***	0.038
Employed											-0.181***	0.040											-0.181***	0.050
Unemployed											-0.484***	0.086											-0.437***	0.103
Household occupation Rate											0.383***	0.067											0.334***	0.082
Household unemployment Rate											-0.420***	0.127											-0.501***	0.156
Enrolled in private health insurance											0.250***	0.046											0.259***	0.057
Enrolled in public health insurance											-0.116***	0.046											-0.142***	0.060
Enrolled in pension fund											0.103***	0.040											0.083**	0.049
Good health											0.539***	0.035											0.572***	0.041
Constant	0.116	0.145	0.364***	0.150	-0.341	0.388	-0.128	0.396	-0.054	0.393	-0.423	0.448	-0.011	0.183	0.308	0.271	-0.276	0.293	-0.833***	0.235	-1.178***	0.270	-0.161	0.390
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	18,715		18,250		17,936		17,936		17,936		15,228		12,521		11,894		11,894		11,894		11,894		9,875	

Table 10. Life satisfaction models. Dependent variable equal to one if satisfied. The role of the type of victimization

Variable	Living in Current Neighborhood 10 or More Years Ago, Movers												Living in Current Neighborhood 10 or More Years Ago, Always in Current Neighborhood											
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
	(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		(ix)		(x)		(xi)		(xii)	
Homicide rate	-0.004	0.005	**-0.027*** **	**0.011**	**-0.028*** **	**0.011**	**-0.027*** **	**0.011**	**-0.029*** **	**0.011**	**-0.025** **	**0.014**	0.012*	0.007	-0.000	0.008	-0.002	0.008	-0.001	0.008	-0.005	0.009	-0.003	0.010
Capture Rate / Homicide Rate	-0.063	0.235	**0.986*** **	**0.364**	**0.918*** **	**0.358**	**0.886*** **	**0.358**	**0.907*** **	**0.362**	0.517	0.431	-0.036	0.165	-0.309	0.353	-0.304	0.347	-0.342	0.348	-0.335	0.361	-0.816***	0.408
Distance to crime	**0.000*** **	**0.000**	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000	0.000
Years living in this place	-0.002	0.002	-0.000	0.002	-0.000	0.002	0.000	0.002	0.000	0.002	-0.001	0.002	-0.002	0.001	0.000	0.001	0.000	0.001	0.001	0.001	0.002*	0.001	0.002*	0.001
Safe neighborhood	**0.217*** **	**0.069**	**0.195*** **	**0.070**	**0.192*** **	**0.071**					**0.145** **	**0.077**	**0.343*** **	**0.053**	**0.318*** **	**0.058**	**0.299*** **	**0.057**					**0.246*** **	**0.070**
Victim of robbery, burglary, personal	-0.118	0.086	**-0.177** **	**0.096**	**-0.159** **	**0.093**	**-0.198*** **	**0.092**	**-0.231*** **	**0.095**	**-0.209** **	**0.112**	**-0.113* **	**0.074**	**-0.151** **	**0.080**	**-0.146** **	**0.078**	**-0.228*** **	**0.077**	**-0.304*** **	**0.082**	**-0.181** **	**0.093**
Victim of other offenses	-0.066	0.103	-0.010	0.117	0.056	0.124	0.032	0.123	0.073	0.126	0.098	0.149	**-0.243*** **	**0.118**	**-0.326*** **	**0.136**	**-0.281*** **	**0.138**	**-0.333*** **	**0.136**	**-0.344*** **	**0.128**	**-0.241** **	**0.142**
Household income	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
Number of persons in household	-0.067***	0.014	-0.074***	0.014	-0.072***	0.014	-0.072***	0.014	-0.091***	0.014	-0.085***	0.014	-0.063***	0.010	-0.062***	0.011	-0.058***	0.011	-0.057***	0.011	-0.073***	0.011	-0.061***	0.013
Age	0.007	0.010	0.001	0.011	-0.001	0.011	-0.001	0.011	-0.013	0.011	-0.011	0.012	0.001	0.007	-0.001	0.007	-0.002	0.007	-0.002	0.007	-0.008	0.007	-0.008	0.008
Age2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Male	0.048	0.058	0.090	0.065	0.117**	0.066	0.114**	0.066	0.128***	0.065	0.172***	0.073	0.104***	0.052	0.088**	0.052	0.096**	0.051	0.099**	0.050	0.104***	0.050	0.076	0.055
Household head with primary	-0.107***	0.051	-0.042	0.061	-0.042	0.060	-0.046	0.060	0.007	0.063	-0.041	0.068	-0.097**	0.053	-0.026	0.057	-0.029	0.058	-0.024	0.057	0.043	0.057	0.033	0.059
Household head with secondary	-0.061	0.088	-0.033	0.107	-0.036	0.107	-0.041	0.107	0.029	0.112	-0.056	0.119	-0.094*	0.064	-0.001	0.069	-0.017	0.067	-0.006	0.067	0.093	0.068	0.007	0.073
Hhold head with technique education	-0.040	0.147	-0.030	0.179	-0.025	0.180	-0.041	0.176	0.014	0.188	-0.059	0.242	0.040	0.118	0.143	0.129	0.115	0.130	0.111	0.129	0.206*	0.133	0.107	0.145
Household head single	-0.149***	0.071	-0.192***	0.078	-0.195***	0.079	-0.193***	0.078	-0.119*	0.080	-0.130*	0.089	-0.332***	0.065	-0.328***	0.071	-0.318***	0.072	-0.311***	0.072	-0.268***	0.076	-0.179***	0.083
Household head married	0.123*	0.081	0.066	0.090	0.029	0.090	0.032	0.090	-0.019	0.090	-0.089	0.102	0.013	0.072	0.026	0.074	0.006	0.075	0.003	0.075	-0.036	0.076	0.030	0.085
Household head separated	-0.309***	0.081	-0.367***	0.089	-0.358***	0.089	-0.353***	0.089	-0.322***	0.092	-0.327***	0.095	-0.283***	0.065	-0.285***	0.069	-0.275***	0.069	-0.281***	0.069	-0.274***	0.072	-0.175***	0.082
Household head lives with partner	-0.066	0.099	-0.050	0.108	-0.067	0.105	-0.066	0.106	-0.059	0.109	-0.122	0.121	-0.246***	0.077	-0.167***	0.080	-0.172***	0.080	-0.172***	0.080	-0.151**	0.082	-0.064	0.088
Educational attainment	0.066***	0.008	0.042***	0.010	0.039***	0.010	0.039***	0.010	0.023***	0.010	0.018*	0.012	0.067***	0.006	0.049***	0.006	0.047***	0.006	0.047***	0.006	0.027***	0.006	0.023***	0.007
House with fixed phone line					0.449***	0.084	0.446***	0.083	0.303***	0.085	0.284***	0.098					0.454***	0.076	0.455***	0.076	0.360***	0.076	0.301***	0.085
House with electricity					-0.204	0.208	-0.213	0.206	-0.188	0.209	-0.338	0.289					-0.065	0.211	-0.077	0.208	-0.108	0.196	-0.117	0.220
House with aqueduct					0.399***	0.145	0.406***	0.146	0.355***	0.152	0.375***	0.163					0.443***	0.110	0.465***	0.109	0.398***	0.111	0.342***	0.113
House with sewerage					-0.175	0.193	-0.156	0.192	-0.159	0.194	-0.108	0.225					-0.065	0.168	-0.064	0.165	-0.107	0.156	-0.105	0.180
Number of rooms in household					-0.033	0.034	-0.034	0.035	-0.044	0.034	-0.033	0.039					-0.036	0.031	-0.040	0.031	-0.051*	0.032	-0.018	0.037
Socioeconomic stratum 2									-0.001	0.092	-0.061	0.095									-0.014	0.136	-0.052	0.143
Socioeconomic stratum 3									-0.010	0.158	-0.122	0.167									0.184	0.147	0.105	0.154
Socioeconomic stratum 4									0.410**	0.244	0.233	0.262									0.533***	0.210	0.415**	0.235
Socioeconomic stratum 5 or 6									1.180***	0.295	1.195***	0.346									0.747***	0.232	0.557***	0.262
Homeownership, house totally paid									0.276***	0.100	0.213***	0.104									0.199***	0.060	0.141***	0.068
Homeownership, house partially paid									0.144	0.158	0.088	0.172									-0.053	0.128	-0.149	0.145
Tenant									0.200**	0.115	0.115	0.123									0.202***	0.074	0.175***	0.082
House with gas for cooking									-0.160	0.141	-0.182	0.157									-0.065	0.103	0.005	0.109
House with natural gas									0.342***	0.155	0.395***	0.167									0.280***	0.110	0.190**	0.114
House with internet									0.370***	0.077	0.335***	0.092									0.449***	0.052	0.354***	0.060
House with cable TV									0.412***	0.055	0.373***	0.063									0.321***	0.051	0.279***	0.057
Employed											-0.121*	0.078											-0.240***	0.063
Unemployed											-0.221	0.191											-0.553***	0.129
Household occupation Rate											0.389***	0.117											0.309***	0.111
Household unemployment Rate											-0.662***	0.291											-0.503***	0.198
Enrolled in private health insurance											0.182***	0.081											0.339***	0.074
Enrolled in public health insurance											-0.250***	0.096											-0.077	0.074
Enrolled in pension fund											0.036	0.091											0.078	0.063
Good health											0.626***	0.063											0.557***	0.058
Constant	-0.158	0.340	-0.435	1.016	-0.814	1.022	-0.716	0.985	-0.775	0.991	-0.868	0.816	0.084	0.212	0.650***	0.221	-1.074	0.858	0.594***	0.222	0.865***	0.259	0.536**	0.321
FE Past Neighborhood	No		Yes		Yes		Yes		Yes		Yes		No		Yes		Yes		Yes		Yes		Yes	
FE Current Neighborhood	No		No		Yes		Yes		Yes		Yes		No		No		Yes		Yes		Yes		Yes	
N	4,705		4,251		4,251		4,251		4,251		3,567		7,811		7,181		7,181		7,181		7,181		5,897	

Appendix A1

We use a bi-variated kernel density estimator to construct the variables used in our estimations (homicide rate, distance to crime, and arrest rates), and the maps. We use two variables: the distance, in meters, from the centroid of each block to the place where the homicide was committed, and numbers of months elapsed between the date of each homicide and the date the survey was carried out. Given random *r*-vectors $X_1, X_2, \ldots, X_n$ the multivariate kernel density estimator is defined,

$$\hat{p}_H(x) = \frac{1}{n|H|}\sum_{i=1}^{n} K\left(H^{-1}(x - X_i)\right), \quad x \in \Re^r$$

Where H is an $(r \times r)$ nonsingular matrix that generalizes the window width and *K* is a multivariate function with mean 0 an integrates to 1. We tried with Bartlett Epanechnikov kernel, since it is the one with the minimal asymptotic integral squared error, and Gaussian kernel. We use *Rule-of-Thump Method* and Likelihood Cross-Validation to the window width

Appendix A2

Variable	Description
Homicide rate	Homicide rate per 10,000 inhabitants, by block of each individual interviewed by ECV 2008 (constructed with Kernel procedure)
Capture Rate / Homicide Rate	Homicide rate per 10,000 inhabitants divided by capture rate per 10,000 inhabitants of the block where the individual live (constructed with Kernel procedure)
Distance to crime	Average distance between the centroid of each block where individual interviewed by ECV 2008 live and the place where homicides occurred (Estimated using the kernel)
Years living in this place	ECV 2008 asked how many year the people have been living in the place where they are actually living
Safe neighborhood	We constructed a dummy variables that is 1 if individuals answered to have "very safe" and "safe" feeling perceptions of the neighborhood or district where you live .
Victim of robbery, burglary, personal	We constructed a dummy variable that is 1 if individuals interviewed or other member of their household were victims of robbery, burglary, personal.
Victim of other offenses	We constructed a dummy variable that is 1 if individuals interviewed or other member of their household were victims of other offenses
Household income	The sum of the income of the members of the household.
Number of persons in household	Number of persons living currently in the same home
Age	Age of the interviewed individual
Age2	Age of the interviewed individual squared
Male	Dummy variable if the interviewed individual is male
Household head with primary	Dummy variable equal to 1 if educational level of the household head is at least primary studies
Household head with secondary	Dummy variable equal to 1 if educational level of the household head is at least secondary studies
Hhold head with technique education	Dummy variable equal to 1 if educational level of the household head is at least technique studies
Household head single	Dummy variable equal to 1 if the household head is single
Household head married	Dummy variable equal to 1 if the household head is married
Household head separated	Dummy variable equal to 1 if the household head is separated
Household head lives with partner	Dummy variable equal to 1 if the household head lives with partner
Educational attainment	Educational attainment
House with fixed phone line	Dummy variable equal to 1 if the house has fixed phone line
House with electricity	Dummy variable equal to 1 if the house has electricity
House with aqueduct	Dummy variable equal to 1 if the house has aqueduct
House with sewerage	Dummy variable equal to 1 if the house has sewerage
Number of rooms in household	Number of rooms in household
Socioeconomic stratum 2	Dummy variable equal to 1 if socioeconomic stratum where individual live is equal to 2
Socioeconomic stratum 3	Dummy variable equal to 1 if socioeconomic stratum where individual live is equal to 3
Socioeconomic stratum 4	Dummy variable equal to 1 if socioeconomic stratum where individual live is equal to 4
Socioeconomic stratum 5 or 6	Dummy variable equal to 1 if socioeconomic stratum where individual live is equal to 5 or 6
Homeownership, house totally paid	Dummy variable equal to 1 if the house is own and totally paid
Homeownership, house partially paid	Dummy variable equal to 1 if the house is own and partially paid
Tenant	Tenant
House with gas for cooking	Dummy variable equal to 1 if the house has gas for cooking
House with natural gas	Dummy variable equal to 1 if the house has gas natural gas
House with internet	Dummy variable equal to 1 if the house has internet
House with cable TV	Dummy variable equal to 1 if the house has cable TV

Variable	Description
Employed	Dummy variable if individual is employed
Unemployed	Dummy variable if individual is unemployed
Household occupation Rate	Number of people with employment divided by the number of persons in household
Household unemployment Rate	Number of people unemployment divided by the number of persons in household
Enrolled in private health insurance	Dummy variable equal to 1 if interviewed is Enrolled in private health insurance
Enrolled in public health insurance	Dummy variable equal to 1 if interviewed is enrolled in public health insurance
Enrolled in pension fund	Dummy variable equal to 1 if interviewed is enrolled in pension fund
Good health	Dummy variable equal to 1 if the interviewed answer to has "very good" health or "good" health
Constant	Constant
FE Past Neighborhood	Fixed effect of past neighborhood
FE Current Neighborhood	Fixed effect of current neighborhood