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involves a moral dilemma: to commit a socially reprehensible act or not. The higher the level of social capital in the criminal's society, the greater the disappointment when the society's members become aware that one member has committed a crime and the greater the chance that the criminal will suffer feelings of guilt associated with unethical behavior. In this way, a higher level of social capital within a society would increase costs inherent in a member's commission of a crime. If the benefits from the criminal activity exceed not only the costs in terms of institutional punishment and lost wages, but also the costs arising from societal disapproval and ethical consternation, then the potential criminal's moral threshold will have been crossed and the crime will be committed.

From the perspective of the victim, Putnam (1993) and Dilulio (1996) point out that a higher level of social capital makes it more likely that a society's members will cooperate for their mutual benefit and provide the efficacy of the collective. This could generate mechanisms of social control to fight crime, such as the hiring of private security guards and monitoring the neighborhood. Bursick and Grasmick (1993) also argue that societies with a higher level of social capital inhibit victimization because they are more likely to obtain public services, such as those offered by the police.

According to Bursick and Grasmick (1993), social capital must be an important consideration when trying to lower crime rates. A practical example of this can be found in the *Programa Desarollo, Seguridad y Paz* (Desepaz), a public policy implemented in Cali, Colombia. Desepaz seeks to increase social capital by encouraging civic participation, strengthening public institutions, and taking action to reduce social conflict. Cuesta et al. (2007) found that the resulting increase in social capital reduced violence and crime in the city.

A number of empirical studies have tested the relationship between social capital and crime. In

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$$; 0 \qquad 1 \qquad\qquad (4)$$

Substituting Eqs. 2 and 4 in Eq. 1 follows that

$$\qquad (5)$$

It is also be assumed that capital stock ( ) and social distance ( ) are fixed. Again, by evaluating the case of individual   committing a crime against , changes in the confidence level of   relative to   would affect the net benefit of committing the crime. This can be seen in Eq. 6, where   is the total derivative of   from Eq. 5. It is assumed that

$$\overline{\qquad} \qquad \overline{\qquad} \quad - \overline{\qquad} \qquad \overline{\qquad} \qquad \overline{\qquad} \qquad \overline{\qquad} \qquad (6)$$

In 1 0.1 0 0 1 DɟTɟTJ9ɟTJ9f 0 1 7.3 TmC /P 5 1 458.38 520.63!

and the visibility of that individual's material goods at any time and place. Proximity, in turn, concerns the individual's distance from areas where violent behavior is more prevalent and that are historically characterized by criminal activities. The capacity to secure protection depends on the effectiveness of actions taken by potential victims to protect themselves from criminal activities (hiring security, installing cameras and safety equipment). A potential victim's attractiveness refers to the apparent physical ability of the victim to resist criminal attack. Finally, the nature of the crime is defined by the type of crime to be committed by the potential offender, which influences the victim's level of risk.

As stressed by Justus and Kassouf (2013), the theory proposed by Cohen, Kluegel and Land (1981) is very broad, and it is difficult to precisely define or determine the influence of theory's variables; however, it is not hard to accept the notion that social capital affects the variables' influences. For example, if the individual feels secure and confident in their community, they will be more likely to explore the neighborhood and use and display items of value. Being rational, a potential victim that feels secure would be expected to have higher levels of confidence in the places and societies in which they feel less likely to be at risk (Justus; Kassouf, 2008).

3 Methodology

3.1 Data

The majority of this study's data sources are Latin American Public Opinion Project - LAPOP surveys conducted by Vanderbilt University. Data for the variables *inequality* and *homicide* were obtained from data compiled by Ipeadata. The Lapop surveys have been conducted bi-annually since 2004 in 26 Latin American, Central and North America countries. The first of these surveys carried out in Brazil was in 2006, and the last edition of Brazilian survey results was published in 2014. The main objective of the research is to collect public opinion on issues involving politics, economics, democracy, and civil participation. The survey uses a representative sample of the adult population of eligible voters who are generally over 16 years of age. Only individuals living in "normal" society are able to participate, which excludes people living in boarding schools, hospitals, police academies, military barracks and prisons. The observation unit is the individual, preferably a reference person in the household being interviewed. The sampling method involves stratification determined by the size of municipalities, urban and rural areas, and regions.

For most variables, our study uses Lapop data from surveys conducted in 2010, 2012 and 2014. These data were then organized into sets of pooled data. The surveys from 2006 and 2008 were not used because the data from those surveys were not separated into categories that distinguished victimization of property from victimization of persons.

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In order to avoid bias caused by

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by Corbacho et al. (2014) that addresses

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It is observed that in the sample only 20.4 percent of the surveyed Brazilians, both non-victims and victims, consider people very trustworthy, 70.7 percent consider people to be somewhat trustworthy or not very trustworthy, and 8.8 percent consider people to be untrustworthy. It can be seen that victims

Table 4 – Continuation

	Non-victimized	Victmized	z/t test
Classpop (25k to < 50k)	0.20	0.24	-0.05***
	(0.40)	(0.43)	(0.02)
Classpop (50k to <200k)	0.22	0.21	0.01
	(0.42)	(0.41)	(0.02)
Classpop (200k to <500)	0.25	0.15	0.09***
	(0.43)	(0.36)	(0.02)
Classpop (500 thousand inhab.)	0.08	0.05	0.02***
	(0.28)	(0.23)	(0.01)
Age (16-25)	0.23	0.27	-0.04***
	(0.42)	(0.44)	(0.02)
Age (26-35)	0.25	0.26	-0.01
	(0.43)	(0.44)	(0.02)
Age (36-45)	0.20	0.25	-0.04***
	(0.40)	(0.43)	(0.02)
Age (46+)	0.32	0.22	0.10***
	(0.47)	(0.41)	(0.02)
Schooling	8.25	9.26	-1.07***
	(3.91)	(3.75)	(0.15)

Income (class A)

instrumental variables (IV-Probit 1 & 2). Model I includes only the instrumental variable *politics*. Model II includes both *politics* and *news,* the other instrumental variable. The

Table 5
Estimated coefficients in the first stage and marginal effects in the mean (M.E.) obtained in
the estimation of IV-Probit and the Probit models

The empirical results presented in Table 5 for the relationship between social capital and the risk of victimization align with those predicted in Section 2's discussion of the theoretical model. For the LLM theoretical model, higher confidence levels imply a reduction in the net benefit of a

economic and social relations that favors the occurrence of crime. This result is theoretically supported by the CKL theory. It should be noted that the *urban* variable together with the categorical *classpop* was used to control the distance between individuals ( ), as established in the LLM theoretical model and specified in Eq. 3.

For the income variable, Gavíria and Pagés (2002) suggest that individuals' incomes determine both their attractiveness to criminals and their ability to contract security services to protect their residences and themselves and minimize exposure in unsafe

willing

BEATO, F.; PEIXOTO, B. T.; VIEGAS, M. A. Crime, oportunidade e vitimização. *Revista Brasileira de Ciências Sociais*, v. 19, n. 55, p. 73-89, 2004.

BECKER, G. S. Crime and punishment: an economic approach. *Journal of Political Economy*, v. 76, n. 2, p. 169-217, 1968.

BERGH, A.; BJØRNSKOV, C. Trust, welfare states and income equality: sorting out the causality. *European Journal of Political Economy*, v. 35, n. 9, p. 183-199, 2014.

BEUGELSDIJK, S. A note on the theory and measurement of trust in explaining differences in economic growth. *Cambridge Journal of Economics*, v. 30, n. 5, p. 371-387, 2006.

BLACK, D. J. *The behaviour of law*. New York: Academic Press, 1976.

BLANCO, L. R. The impact of crime on trust in institutions in Mexico. *European Journal of Political Economy*, v. 32, n. 12, p. 38-55, 2013.

BLANCO, L. R.; RUIZ, I. The impact of crime and insecurity on trust in democracy and institutions. *American Economic Review: Papers & Proceedings*, v. 103, n. 3, p. 284-288, 2013.

BURSIK, R. J.; GRASMICK, H. G. *Neighborhoods and crime*: the dimensions of effective community control. Lexington Books, 1993. 240p.

CAMERON, A. C.; MILLER, D. L. A practitioner's guide to cluster-robust inference. *Journal of Human Resources*, v. 50, n. 2, p. 317-372, 2015.

CAMERON, A. C.; TRIVEDI, P. K. *Microeconometrics*: methods and applications. Cambridge University Press, 2005.

COHEN, L. E.; 25 Tm2907(G)0 1 5 Tm(264 LTBT1 0 0 1 229.37 395527 Tm(,)-151(L.)-)-2

DILULIO, J. Help wanted: economists, crime and public policy. *Journal of Economic Perspectives*, v. 10, n. 1, p. 3-24, 1996.

FUKUYAMA, F. *Social capital and civil society*. The Institute of Public Policy. George Mason University, 1999.

GAVÍRIA, A.; PAGÉS, C. Patterns of crime victimization in Latin American cities. *Journal of Development Economics*, v. 67, n. 1, p. 181-203, 2002.

GOMES, F. A. R.; PAZ, L. S. The determinants of criminal victimization in São Paulo State, Brasil. *Brazilian Review of Econometrics*, v. 28, n. 2, p. 217-238, 2008.

GOTTFREDSON, M. R.; HINDELANG, M. J. A study of the behavior of law. *American Sociological Review*, v. 44, n. 1, p. 3-18, 1979.

HAUSMAN, J. A. Specification tests in econometrics. *Econometrica*, v. 46, n. 6, p. 1251-1271, 1978.

JACOBS, J. *The life and death of great American cities*. Random House, 1961.

JUSTUS, M.; KASSOUF, A. L. Existe explicação econômica para o sub-registro de crimes contra a propriedade? *Revista de Economia Aplicada*, v. 12, n. 1, p. 5-27, 2008.

JUSTUS, M.; KASSOUF, A. L. Evidence of the effect of wealth observed by criminals on the risk of becoming a victim of property crimes. *Economia,* Brasília, v. 14, p. 1-14, 2013.

JUSTUS, M.; SCORZAFAVE, L. G.; SANT'ANNA, E. G. Crime and victimization in rural Brazil. In: DONNERMEYER, Joseph F. (Org.). *International Handbook of Rural Criminology*. Routledge: Taylor & Francis, 2016.

KNACK, S.; KEEFER, P. Does social capital have an economic pay-off? A cross country investigation. *Quarterly Journal of Economics*, v. 112, p. 1251-1288, 1997.

KNACK, S.; ZAK, P.J. Building trust: public policy, interpersonal trust, and economic development. *Supreme Court Economic Review*, v. 10, p. 91-107, 2002.

LAPOP. *Latin American Public Opinion Project Survey*: 2010-2014. Vanderbilt University. Disponível em: http://www.vanderbilt.edu/lapop. Acesso em: Oct. 2015.

LEDERMAN, D.; LOAYZA, N.; MENENDEZ, A. M. Violent crime: does social capital matter? *Economic Development and Cultural Change*, v. 50, n. 3, p. 509-539, 2002.

MADALOZZO, R.; FURTADO, G. M. Um estudo sobre vitimização para a cidade de São Paulo. *Revista de Economia Política*, v. 31, n. 1, p. 160-180, 2011.

McCARTHY, D. M. P. *An economic history of organized crime*: a national and transnational approacho2002.MENENDEZ

approacho20

MUHAMMAD, B. *Rural crime and rural policing practices* (Multicultural law enforcement). Detroit Police Department, 2002.

NORRIS, P. Does television erode social capital? A reply to Putnam. *Political Science and Politics*, v. 29, n. 3, p. 474-482, 1996.

PAPAGAPITOS, A.; RILEY, R. Social trust and human capital formation. *Economics Letters*, v. 102, n. 3, p. 158-160, 2009.

PEIXOTO, B.; SOUZA, L. G.; LIMA, R. S. Uma análise sistêmica: vitimização e políticas de segurança em São Paulo. *Revista do Serviço Público*, v. 63, n. 2, p. 217-236, 2012.

PUTNAM, R. *Making democracy work*: civic traditions in modern Italy. Princeton University Press, 1993.

PUTNAM, R. D. *Bowling alone*: the collapse and revival of American community. Simon & Schuster, 2001. 544p.

QUDDUS, M.; GOLDSBY, M.; FAROOQUE, M. Trust: the social virtues and the creation of prosperity – a review article. *Eastern Economic Journal*, v. 26, n. 1, 2000.

RAND, M.; CATALANO, S. Criminal victimization, 2006. *Bureau of Justice Statistics* Bulletin, Dec. 2007.

ROH, S.; LEE, J. Social capital and crime: a cross-national multilevel study. *International Journal of Law, Crime and Justice*, v. 41, n. 1, p. 58-80, 2013.

SARGAN, J. D.; The estimation of economic relationships using instrumental variables. *Econometrica*, v. 26, n.1, p. 293-415, 1958.

SCORZAFAVE, L. G.; JUSTUS, M.; KASSOUF, A. L. *Determinantes da vitimização e do sub-registro de crimes na cidade de São Paulo*. CPP-Insper, 2011. 47p. (Relatório de Pesquisa).

SCORZAFAVE, L. G.; JUSTUS, M.; SHIKIDA, P. F. A. Safety in the global south: criminal victimization in Brazilian rural areas. *Journal of Rural Studies*, v. 39, n. 1, p. 247-261, 2015.

SCORZAFAVE, L. G.; SOARES, M. K. Income inequality and pecuniary crime. *Economics Letters*, v. 104, n. 1, p. 40-42, 2009.

SEIGEL, L. *Journal of Criminology*, 10th ed. University of Massachusetts. Thomson Wadsworth, 2006.

TAKAGI, D.; IKEDA, K.; KAWACHI, I. Neighborhood social capital and crime victimization: comparison of spatial regression analysis and hierarchical regression analysis. *Social Science & Medicine*, v. 75, n. 10, p. 1895-1902, 2012.

USLANER, E. M. *The moral foundations of trust*. Cambridge University Press, 2002. 316p.

WARNER, B. Directly intervence or call the authorities? A study of forms of neighborhood social control within a social disorganization framework. *Criminology*, v. 45, n. 1, p. 99-129, 2007.

WISHEIT, R. A.; FALCONE, D. N.; WELLS, L. E. *Rural crime and rural policing*. National Institute of Justice. Research in Action, 1994.

WORLD HEALTH ORGANIZATION – WHO. *Global Status Report on Violence Prevention*. 2014. 292p.

ZAK, P. J.; KNACK, S. Trust and growth. *The Economic Journal*, v. 111, n. 4, p. 295-321, 2001.