

## RESEARCH ARTICLE

# Effectiveness and Evaluation of Crime Prevention Programs in Minas Gerais

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This essay analyzes previous studies evaluating the effectiveness of the crime prevention policies adopted by the Government of Minas Gerais (Brazil). In this work, greater emphasis is placed on studies evaluating outcomes than on studies dealing with the process of setting up and implementing programs and projects. In order to allow a more systematic discussion, the Maryland Scale, which categorizes research and evaluations according to the methodological strengths and weaknesses in five levels, is employed. Subsequently, the authors draw a parallel between Brazil and other settings. Finally, this essay lays out the implications of this discussion regarding the prevention programs.

## Introduction

A mix of social policy and crime prevention programs is often proposed to keep crime rates low. Although the association between general social programs and specific programs to fight crime is unclear, this type of social intervention is commonly associated with a reduction in crime (Welsh and Farrington 2012; Rolim 2006).

What are the most important effects of these policies for reducing crime? The difficulty of evaluating these policies partly stems from the fact that social policies are devised and implemented at different levels of public administration (municipal, state, and federal). In Brazil for instance, such policies are under the control of state governments. Municipal districts however, have a

broader reach in the execution of programs targeting more specific groups such as the young, high-risk families, youths on probation schemes or street dwellers just to name a few, that can be more directly linked to the issue of violence prevention (Banco Mundial 2003; Soares 2006). Nevertheless, the power of the municipal police is restricted to Municipal Guards, which represents a limiting factor for the structuring of 'Weed and Seed' projects that involve elements of qualified enforcement and crime prevention through social development (Banco Mundial 2003; Soares 2006; Rigakos 1996; Kelly et al 2005). Consequently, many programs of this nature aimed at bringing together different control strategies are derived from state-level agencies, such as UPPs (Pacification Police Units), Pacto pela Vida (Pact for Life) or Fica Vivo (Stay Alive).

To make things worse, there is often a problem with how crime prevention programs are conceptualized. Treating crime prevention programs distinctly and separately from programs connected with policing is a common

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mistake. Many of the assessment projects are run by the police or feature the police in an active role. The IGESP (Integration and Management of Public Security), and GEPAR (Group Specialized in Policing Risk Areas) of the Fica Vivo (Stay Alive) are highly successful examples of prevention programs involving the police. The Patrulhamento Ativo (Active Patrol) program has also shown promise, although more systematic assessment is necessary (Beato 2008; Soares et al 2013).

Another aspect to consider is the scope of the interventions, which directly influences the difficulty of conducting evaluations. In Latin American literature, particularly from Brazil, there is a predominance of analyses concerning institutional projects of a broader and more systemic nature (Beato 2012). Thus, as a general rule, these analyses range from interventions of a managerial nature for integrating actions at different levels, to specific programs and projects aimed at different audiences. Examples include urban restructuring and requalification projects, or schemes for the reeducation and reintegration of juvenile offenders or individuals leaving the prison system. It therefore follows that the most renowned policies of this nature are endorsed by state governments, which often seek federal funding for them.

One of the texts most central to the discussion of evidence-based crime-prevention policies is the work of Lawrence Sherman (Sherman et al 2002), which draws on over 500 studies, assessing their effectiveness in the United States and England. These studies are grouped into seven institutional settings for evaluation: a) family; b) schools; c) communities; d) job market; e) places; f) police agency; and g) courts and correctional facilities. The North American and English cases comprise numerous experiences, projects and programs specifically focusing on particular violence and crime-related issues. These consist of highly specific projects with a well-defined focus, enabling robust scientific evaluation in which causal relationships can be established. However, the narrow

focus of such projects greatly reduces their potential for generalization toward application in broader policies.

The Brazilian tradition entails a broader strategy, with groups of projects comprising a state policy, as opposed to specific programs within localized institutional settings (Beato 2012; Soares 2006). As a result, in Brazil, many discussions are centered on evaluating how programs were run rather than their outcomes. While it is true that this type of strategy is virtually inevitable, given Brazil's context of short-term urgency, institutional and constitutional constraints, and cognitive capacity prevailing in public security, it also severely limits the ability to critically assess which components and elements work in crime prevention (Beato 2012; Silveira 2007). This renders the programs more vulnerable to the development of inefficient, expensive and largely ineffective policies. There are exceptions however, some of which will be discussed below.

### **Prevention of crime and violence in Brazil**

The Federal Government of Brazil began incorporating 'elements of prevention' proposing interventions upon known causes of crime and violence by setting up the Public Security Fund established by Minister Jose Gregorio. More recently, since 2003, the Federal Government has proposed a National Policy for Public Security whose agenda features the prevention of crime and violence. In particular, the reformulation of the Law of the National Fund for Public Security opened the door for possible municipal financing for crime prevention programs. Although these programs have not yet been formally assessed by the Ministry of Justice, a database has been built to compile, systematize and disseminate the public's experience with the programs. In 2005, through the document entitled 'Profile of the Practices Recorded at the Democratic Monitoring Unit of Practices for the Prevention of Violence and Crime in Brazil,' the Ministry of Justice reported the

basic characteristics of 168 prevention practices registered at the Unit up to May 2005 (MJ 2005). In all, only half of the programs were found to have undergone some type of evaluation (Silveira 2007).

The report revealed that the Military Police and Fire Service were the institutions that most promoted prevention of violence and crime, accounting for 56 per cent of all such actions. The Civil Police conducted 23 per cent, while the state secretariats and other NGOs accounted for 11 and 10 per cent of actions, respectively. The most commonly cited problems, particularly by the police forces, were drug trafficking and use along with drug addiction. Among state secretariats, Civil Police and other organizations, a third of the projects were dedicated to the prevention of juvenile crime and to promoting the Child and Adolescent Statute (ECA). The main obstacles cited in attaining program objectives included a lack of coordination of 'counter-advertising', skepticism of the community, interaction problems, lack of engagement, interest, integration, participation, and reluctance and resistance from the community. Also, some two-thirds of the programs reported a lack of human, physical and material resources as an obstacle to progress (MJ 2005).

The majority of the programs were devised with urban populations in mind. The most common level of intervention was at the community level, where 12–24 year-olds were the target population in 42.9 per cent of interventions while 55.4 per cent of initiatives involved victims and aggressors. Some 32.3 per cent of the programs reported having reached more than 2,000 individuals during the 12 months leading up to the survey, whereas 64.9 per cent stated that different types of intervention were employed (MJ 2005).

Overall, 34.5 per cent of programs had at least one partner institution, 32.7 per cent two or more partners, 19.6 per cent three or more, and 13.1 per cent had no partner institution. Only 7.7 per cent of the programs focused on risk factors. Nonetheless, 28 per

cent of public respondents deemed the actions successful (MJ 2005).

Although the database listed only 168 initiatives, professionals from the field have acknowledged the existence of a greater number of prevention programs and projects in place, many conducted by NGOs, religious institutions, and OSCIPs (Civil Society Organizations of Public Interest). The majority of these initiatives operate at the community level with a target population of children and young adults. Most of the projects offer workshops for recreation, sports, vocational training, remedial tutoring, culture and art. The idea of keeping youths occupied in a venue for socializing—and therefore off the streets—is prevalent.

In the field of health policy, Administrative Rule no. 737/GM 16 of May 2001 concerning the National Policy for Reducing Mortality by Accidents and Violent Acts plays an important role in establishing different institutional responsibilities, and also 'embrace[s] measures inherent to the promotion of health and prevention of these events, through the implementation of processes of coordination with different social segments (Brasil 2001).' This policy is grounded in the Brazilian legal concept of health, which encompasses issues related to lifestyle and to social, historical and environmental conditions existing in Brazilian society.

To this end, the policy's first directive is promoting the adoption of behaviors and safe and healthy environments, via 'broad mobilization of society at large, and particularly of the media, to recognize the importance of accidents and violent acts, in addition to bolstering inter-sector actions pertinent to the subject' (Brasil 2001). Accordingly, strategies are proposed such as *Municípios Saudáveis* (Healthy Cities), *Prefeito Amigo da Criança* (City Hall - Child Advocates) and 'Health Promoting' Schools, the technical dissemination of statistics on accidents and violent acts, support for seminars, vocational and academic workshops, and incentives to publishers of scientific journals to promote

discussions and publish on these topics. The Rule's legal wording also expounds upon the need to foster:

co-responsibility of citizens in a wider sense, including their collective role in upholding, providing input on and monitoring this Policy. The strategy also includes the promotion of safe environments and healthy behaviors conducive to the prevention of accidents and violent acts and their respective risk factors, such as drugs and alcohol abuse, firearms, non-compliance with security rules, and interpersonal conflicts. These measures encompass all domestic, leisure, work and transportation settings, as well as those involving the processes of community living (Brasil 2001).

The Ministry of Health further advocates that prevention actions be incorporated into all the assistance programs, plans and projects for specific groups of the population and different health themes.

The second directive deals with the monitoring of accidents and violent acts, including the training and mobilization of health professionals working across all levels of SUS care (Brazil's Public Health System), given that improvement in the quality of information is deemed a priority.

The third directive concerns systematization, expansion and consolidation of pre-hospital care so as to reduce the mortality of violent incidents, through promoting the organization and implementation of pre-hospital care services, including the establishment of technical procedures, standardization of equipment and vehicles for transporting victims, and training of personnel.

The fourth directive addresses interdisciplinary and intersectoral assistance to victims of accidents and violent acts, through the structuring and organization of the network of SUS services, to enable the system to better diagnose and treat users. The rule suggests the deployment of an 'interdisciplinary team

that provides victims and their families with the necessary medical, psychological and social support.' It also recommends specific care for female victims of violence, activities centered on the re-education of aggressors, support networks for care, such as shelters and units that provide legal abortions and the physical and psychological rehabilitation of victims of violence.

Although the prevention activities envisaged are both fitting for the mission of the health area and technically pertinent, the preventive actions implemented remain in practice limited, with the exception of the pre-hospital assistance carried out by the rescue services and SAMU (Urgent Mobile Care Service), which works reasonably well (Machado et al 2011). The programs for drug prevention and treatment are weak, leaving users who want to overcome their addictions with little or no support, or at the mercy of clinics and farms, both private and affiliated with religious groups, which are not always trustworthy from a technical, ethical, and health standpoint. This situation has worrying implications for other prevention programs, since addicted felons have few alternatives for treatment under the state public system and often become involved in violent and criminal activities (Silva et al 2009).

### **Prevention Programs in Minas Gerais**

One of the most comprehensive surveys of the Minas case sought to assess the explanations proposed by scholars for the drop in the number of violent crimes in the state of Minas Gerais. According to Betânia Peixoto (Peixoto et al 2011), the majority of the evaluations carried out on the successes of the Minas Gerais policy point to the institutional nature of the interventions performed. In particular, the development of mechanisms of management was found to be key. This involved activities ranging from integration among policies to the institutional partnerships formed in projects such as Fica Vivo (Stay Alive) and the IGESP (Integration and Management of Public Security). This is yet

another example of the Brazilian tendency to focus on the implementation of public policies in a broader context, with no specific focus on the different elements included in these policies.

According to the review conducted, literature hypothesizes that the factors contributing to the success were:

- 1) The creation of an institutional structure by the Secretary for Social Defense and related structures. The institutional innovation employed by the government of Minas Gerais, which sought to pool police prevention actions and prisons together under the same organizational umbrella, was one of the factors considered (Sapori 2007). Actions included:
  - a. Integrated Management of the Social Defense system
  - b. Management of the prison system
  - c. Social prevention of crimes
- 2) The joint mobilization of other actors
  - a. Interaction among different public actors
  - b. Interaction between public actors and the community
- 3) The process of 'metropolizing' the strategies adopted

This whole process of structuring actions was organized along several axes. The Government of Minas Gerais, for its part, lists five actions for structuring programs in the ambit of Social Defense: 1) actions related to provision of Social Defense infrastructure; 2) Integrated Management of Social Defense; 3) Minas Mais Segura (Safer Minas); 4) Aliança pela Vida (Pact for Life); and, more recently, 5) actions associated with the World Cup. The most relevant axes to the present discussion are addressed below.

### **Infrastructure**

The set of actions aimed at the provision of an adequate infrastructure for the implementation of public policies ranges from the construction of buildings and facilities

for the incarceration and handling of juvenile offenders to the management of fleets of police vehicles. Many programs that were not directly conceived as part of violence prevention strategies have a direct impact, since they involve actions that modernize the prison system, attenuating the level of tension, which can lead to higher rates of recidivism in the system. In this respect, one of the most important actions taken was the implementation of the APACs (Associations for the Protection and Assistance of Convicts), which promote a methodology that has gradually been adopted at new detention centers (Muhele 2013).

Curiously, although a ubiquitous item in all manifestos of union and corporate demands, there has been no consistent evaluation of the impact of investments in this plan on crime or violence. Without doubt, improved working conditions and infrastructure are important to professional work, but the benefits of this in terms of effectiveness have yet to be shown.

### **Integrated Management of Social Defense**

The second group of structured projects concerns the Integrated Management of Social Defense, and entails actions such as the Implementation of Videomonitoring ('Live Eye'), Integrated Building Units (State Secretariat of Civil Defense – SEDS), Training Academy of the Social Defense System, Strengthening of Social Defense Analysis and Intelligence, Implementation of the Integrated Command and Control Center, Management of the Integration Policy of the Social Defense System, Rural Security, Integrated Criminal Investigation (Civil Police), and Model Police Precinct (Civil Police). Several more solid evaluations of actions are available, particularly for a previous version of the Integration of the Social Defense System, which unequivocally showed the effectiveness of this type of action (Soares 2011).

Created in the middle of 2005, the management model 'Integration and Management of Public Security' (IGESP) constitutes the

central plank of the policy for integrating the military and civil police forces of Minas Gerais. This comprises a management model based on the COMPSTAT (Computer Statistics) police management system implemented in New York during the early 1990s and subsequently adapted to cater for local needs by the Center for Studies on Crime and Public Security of the Federal University of Minas Gerais (CRISP/UFGM 2008). The specificity of the IGESP lies in the systematic interlocution and integrated action between the various different agencies of the social defense system. For instance, there is the qualified identification of recidivist felons in specific integrated areas and of problems that go beyond the limits of these areas and that permeate the city, such as car theft and robbery, assault and robbery of individuals, and the involvement of adolescents in numerous illicit activities. This consists of an evidence-based, results-oriented policing experience.

Analysis of the results for 56 cities in which the model was found revealed a correlation between the introduction of the IGESP and a reduction in the number of crimes perpetrated. An evaluation of the impact of this model was performed based on the use of regression models and of a control for the implementation period in question (Ferreira 2011). The results showed that, based on conservative estimates, there was a 24 per cent reduction in property crimes and a 13 per cent drop in personal crimes. Some evidence also points to a delayed effect of the model on homicide rates (Ferreira 2011).

Recently, corporate rivalries have affected the results attained, a factor which has certainly contributed to the alarming rise in violent crime seen in the last three years. Following the subsequent deterioration of the program, no further outcomes evaluations have been conducted. This case warrants a more in-depth study of the evaluations of the processes in a bid to identify the various challenges faced by the program, which ultimately led to a total distortion of the original conception.

Other actions, such as those related to videomonitoring, were assessed in a rather unscientific manner, being limited to the temporal comparison of the rise and fall of indicators, with no concern for the analysis of control areas or of confounding variables.

The actions for strengthening and analyzing intelligence were also never properly evaluated owing to implementation problems. The first of these concerned the Integrated information system, the complexity of which required much more intensive training of those responsible for data entry—training which appears to have been provided at only a preliminary level. In addition, a major shortcoming in the ability to analyse the data was evident, which led to shortcomings in diagnoses and in crime analysis reports. Some of these difficulties can be attributed to the obstacles imposed by State Secretariat for Social Defense making it difficult for researchers to access data and its utilization (Castro et al 2003; *Jornal O Tempo* 2014; *Tribuna de Minas* 2012).

Furthermore, there is a growing number of reports from numerous press and research bodies, highlighting the low quality of data and even claiming information tampering by the agents overseeing the system (Castro et al 2003; *Jornal O Tempo* 2014; *Tribuna de Minas* 2012).

Recently, actions such as the implementation of the Command and Control Center, heavily funded by the Federal Government, have been the focus of investigations at the behest of various Ministries including the Ministry of Sports and of Science and Technology, in a process that remains ongoing and inconclusive.

### **Safer Minas Gerais**

The third group of projects bears closer resemblance to those typically conceived of as social prevention projects. The group includes the Fica Vivo (Stay Alive) program, the Implementation of Centers for Crime Prevention and the Police for Community.

Special attention should be given to the Stay Alive program, in that it ranks among

the most exhaustively assessed prevention programs in Latin America, having been the subject of numerous monographs, theses and dissertations, as well as reports and papers. This is partly due to its having its roots in the academic world and subsequently being transformed into public policy (Beato 2005; Andrade & Peixoto 2006; Matta & Andrade 2006; Silveira 2007; Peixoto 2008; Silveira 2008; Silveira 2010).

### ***Fica Vivo (Stay Alive)***

Stay Alive is a program in the mold of the 'Weed and Seed' strategy that incorporates several elements from Boston's 'Ceasefire' program (Braga et al 2001; US Department of Justice 2005; CCDP 2005). The program entailed the devising of supplementary Qualified Enforcement actions via a network of institutions such as the civil and military police forces, the Ministry of Justice and criminal judges, and via a Social Protection Network comprising educational activities, professional training, and the use of schools and support for local business ventures. The program is aimed at gang-affiliated and other at-risk youth.

Given the program's aims and the way it is implemented, Stay Alive can be considered a broad (comprehensive) and focused project at the same time (Silveira 2007).

The program is broad since it fosters the implementation of projects and actions aimed at reducing the different risk factors for crime existing in the community, and the strengthening of other protective factors against crime. The program is community-based since the actions implemented are not only aimed at, and implemented by, the community, but are essentially devised and executed together with the community, who thus play a key role in developing local plans for public security, executing certain actions and monitoring the program. In addition, the program draws on different local actors, seeking to form partnerships among them for the implementation of prevention actions. Stay Alive is implemented by different actors in a range of settings, with an emphasis on

schools, the police, community-based associations and other forums within the community. The eligibility criteria defined by the State Secretariat for Social Defense to host the program are based on the existence of high rates of homicide in the community, with the program's target population comprising young adults aged between 12 and 24 years (Silveira 2007).

It is important to point out that, despite being presented as a prevention program, Stay Alive has never explicitly outlined the risk factors that make up its mandate (Silveira 2007). Several risk factors can be deduced by interpreting the project it financed together with the Ministry of Justice (SEDS 2003) for expansion of the Program in Belo Horizonte and the metropolitan region as of 2003, and by gleaning from other documents produced by those running the program, namely:

- Social vulnerability (as measured by indicators such as rate of entry to the formal job market, educational level, local access to essential services, mortality rate, teenage pregnancy, housing quality, etc.);
- Presence of a large number of youth without proper supervision by adults and/or involved in gangs;
- Low capacity of the community to exert social control and mobilize external resources for it.

The promise of the program lies not only in the fact that it is inspired by community-based programs, implemented at other sites (Braga et al 2001; US Department of Justice 2005, Community Capacity Development Office, n/d; Morrison, n/d), but also in its acknowledgement of the pivotal importance of the local community in the prevention of crime through informal social control, social cohesion and trust among neighbors (Banco Mundial 2003; English et al 2002; Sampson et al 1997) and also in the importance placed on primary and secondary prevention activities whose main target

audience is the younger population (Mihalic et al 2001; Mihalic et al 2004). Underpinned by an alternative theoretical approach, which views crime as a common event pervading everyday activities, the occurrence of which requires the convergence of a motivated actor, a target, and the absence of guardians of this target (Cohen & Felson 1979), it further reiterates the importance of the community in prevention, since this is also centered around everyday activities and whose emphasis is informal social control (Souza 2013).

A number of different types of evaluations of the program have been carried out. One such evaluation, by Andrea Silveira (2007), sought to describe the different procedural components contained in the program. Silveira et al (2010) performed a quasi-experimental study involving analysis of time-series of the occurrence of homicides in the shantytown of Morro das Pedras in Belo Horizonte, Minas Gerais state, between 2002 and 2006. The number of homicides committed in the town was compared against those recorded in other violent and non-violent shantytowns and within other neighborhoods of the city, at each of the Stay Alive Program's phases. In order to test the hypothesis that the reduction in homicides resulted from the actions implemented by the Program, a statistical model was built based on generalized linear models. In the first six months, a 69 per cent reduction in the mean number of homicides was observed. In subsequent periods of fluctuations and partial resumption of the Program, the effect of reduced homicides decreased, but the difference among coefficients compared with that of the initial period did not reach statistical significance. Even with full Program implementation, the effect continued to be similar to the previous periods, probably because the program was implemented in other violent slums in the city.

Another study on effectiveness conducted by Betânia Peixoto (Peixoto et al 2008)

employed the Difference-in-Differences method with Propensity Score Matching to analyse census sectors of shantytowns in which the Program was implemented. For Difference-in-Differences, two samples not receiving the program were used: the city as a whole and a similar group of shanty towns. The results show that between 2004 and 2006 the program reduced 10.72 homicides per one hundred thousand inhabitants per semester less in the pilot area in relation to the areas of comparison. The cost of a homicide avoided by the Stay Alive varies between about 93 and 112 thousand dollars. The rate of return of the program is favorable for practically all parameters utilized, varying from a small return tax, 4 per cent, to a large return tax, 840 per cent. These results suggest that the Stay Alive Vivo present a favorable cost-benefit ratio.

This type of networked action provided the inspiration for the integration programs of the IGESP.

### **Projects involving other areas**

The most important project underway involving other areas is the Escola Viva, Comunidade Ativa - EVCA (Living School, Active Community), which has been rigorously assessed.

#### **Escola Viva, Comunidade Ativa – EVCA (Living School, Active Community)**

This project was set up by the Secretary of State for Education of Minas Gerais with a two-pronged objective: reducing violence and improving school performance in vulnerable areas. An experimental, non-randomized evaluation was performed involving two groups: one group comprising 79 schools participating in the project and a second group of 21 schools serving as a control (Corrêa 2007).

This project was run in the context of second-generation administrative reforms and sought to go beyond the economic and fiscal reforms in an effort to introduce elements



of accountability and foster development in public state policies. In the field of education, the aim was to intervene in cities with a lower Human Development Index (HDI) and greater Social Vulnerability Index (SoVI). The project was formally created in 2003, via Resolution SEE/MG n° 416/2003. The document outlines the project goal as 'better preparing public schools to cater to the needs of children and young adults most impacted by the phenomena of violence and social exclusion and providing the stability and conditions required for the learning process' (SEE/MG 2004).

The Program's target schools and controls were selected based on the Social Vulnerability Index – SVI<sup>1</sup> and criminal occurrences affecting the integrity of the school and the school community members (Westin et al 2007; Soares and Andrade 2006).

Comparison of the results for the two groups (see **Table 1** and **2**) revealed an increase in both, but the increase in the control group was found to be 20.9 per cent lower than in the other schools, even after controlling for

all other variables (financial resources, school size and school performance).

This constitutes one of the few quasi-experimental evaluations carried out regarding public security policies. In fact, Stay Alive, IGESP, and the EVCA project are among the few structured projects that have been submitted to rigorous evaluation of results.

**Using the Maryland scale for projects and programs evaluations**

One approach for organizing the programs' evaluations more systematically is through the use of the Maryland Scale (Sherman et al 2006). Using this instrument, the performed evaluations are placed along a scale with levels ranging from one to five described as follows:

**Level 1**

Correlation between a prevention program and a crime measure at some point in time.

Example: Areas running the 'Live Eye' project are less violent than those which are not.

Socioeconomic level	Number of Schools in the EVCA	No. of Schools in Control Group at 25%
-0.11 to 0.03	16	4
0.04 to 0.18	37	8
0.19 to 0.33	17	6
Above 0.34	9	3
<b>TOTAL</b>	<b>79</b>	<b>19</b>

**Table 1:** Number of schools by socioeconomic level and group. Source: (Correa 2007).

School size	1999/2000		2005/2006		Difference
	Mean/100 students	N	Mean/100 students	N	
<b>Project</b>	5.5	73	6.3	75	14.50%
<b>Control</b>	4.8	19	6.5	19	35.40%
<b>TOTAL</b>	5.3	92	6.3	94	18.90%

**Table 2:** Results by school size.

There are problems regarding the internal validity of the affirmation, since this causal relationship cannot be established. It is possible, for instance, that these areas are populated by individuals who are more predisposed to exercising some degree of control over events in their neighborhoods, where this has a greater influence than the program itself.

### **Level 2**

Measures of crime before and after the program, with no comparable condition to serve as control. In many cases, a control group will be used, although researchers cannot demonstrate comparability with the experimental group.

Example: Crime fell after implementing the Live Eye cameras. Comparisons between areas with the Live Eye *versus* those in cities without it, show that crime declined.

There is a causal relationship, but the internal validity cannot be affirmed. Although there may be a causal nexus between implementation of the program and the results, other factors were not controlled for, such as the decline in crime in other areas without the program, while other variables may have contributed to the decline (e.g. a more visible police presence). Also, the terms of comparison were not explicitly defined. Some authors hold that levels 1 and 2 should not be regarded as valid evidence (Cook and Campbell 1979).

### **Level 3**

Measures of crime before and after the program under experimental and comparable control conditions. The result is in fact derived from a regression model in which all variables involved are controlled.

Example: Crime fell in an experimental area running the Live Eye program, but no decrease was observed in comparable control areas.

Many deem this to be the minimum acceptable level for an evaluation. It considers many of the problems of internal validity, including history, maturation/trends, instrumentation, test and mortality. The main problems include the effects of the selection employed in the model, as well as the regression to the mean, given the non-equivalence of the experimental and control conditions. One of the evaluations of the IGESP carried out by the Catholic University of Rio de Janeiro (PUC-RJ) attains this level.

### **Level 4**

Measures before and after the program in multiple experimental and control units.

Example: Crime measures decrease when comparing various comparable areas running the Live Eye with those in which the program was not tested.

This design has a much better design of statistical control of the extraneous influences on results. Only one of the evaluations out of the various programs, performed for the Stay Alive by the World Bank attained this level of analysis.

### **Level 5**

Random choice of the areas to host the programs and of the control areas.

Example: Randomization of the areas to receive the Live Eye and those to serve as controls.

This level has the highest internal validity.

The following table (**Table 3**) includes some, but not all, of these studies. Only those studies deemed relevant to the scope of this paper are listed.

## **Conclusions**

One of the major differences between Brazil and the United States, in terms of governmental actions in the area of security, is that the urgency of Brazil's problems compel policy-makers to adopt multidimensional

Author	Year	Text	Instit	Program	Title	Objective	Type	Method used	Maryland Scale
<b>PhD theses</b>									
Silveira, Andrea	2007	PhD thesis	UFMG	Fica Vivo (Stay Alive)	To manage public order and application of the law: forms of policing in Brazil-United States – An analysis of the experiences of Belo Horizonte – MG and Washington-DC	Qualitative, comparative case study	Process and outcome	Observation, interviews, descriptive analyses and regression model	2
Sapori, Luis Flavio	2007	PhD thesis	Ed. FGV	The whole Social Defense system of MG.	Public Security in Brazil: challenges and perspectives		Process and outcome	Observation, interviews, descriptive analyses	1
Peixoto, Betânia		PhD thesis	UFMG	Fica Vivo (Stay Alive)	A contribution to crime prevention	Quasi-experimental	Outcome	Control group:	4
<b>Master theses</b>									
Márcia Cris-tina Alves	2008	Masters dissert	FJP	Fica Vivo (Stay Alive)	Crime prevention programs: from social processes to innovations in Public Policy. Expertise of Stay Alive!	To 'understand' elements of the prevention program	Process and outcome	Interviews, time-series	1
Carvalho, E. A.	2008	Masters dissert	PUC MG	Live Eye	Live Eye Project, the iris of the eyes of public security: a geographic analysis.	Assess Live Eye impact on BH city center	Outcome	Time-series	1

Contd.

Author	Year	Text	Instit	Program	Title	Objective	Type	Method used	Maryland Scale
Carvalho, Deborah	2007	Masters dissert	UFMG	Escola Viva (Living School)	Evaluation of public policies for reducing school violence in Minas Gerais: The case of the Escola Viva, Comunidade Ativa (Living School, Active Community) Project.	Evaluation with control group of the program	Outcome	Control group	4
<b>Evaluation reports</b>									
Beato Filho	2005	Report	WB	Fica Vivo (Stay Alive)	Fica Vivo (Stay Alive) case study	Case study for implementation of program	Process	Observation, interviews, descriptive analyses	n/a
Peixoto, et al.	2011	Report	FJP	BH Security Policy	Literature review (83 titles) on explanations for MG	Assess explanations behind drop in violent crime in MG, based on literature review	Literature review	Texts and articles on the subject	not applicable
<b>Papers and chapters</b>									
Beato Filho, Claudio c.	2001	Book Chap.	BID	Community policing in BH	Reinventing the police: implementation of community policing	Assess implementation of community policing in BH, identifying implementation difficulties	Outcome	Interviews, questionnaires and observation	2

Contd.

Author	Year	Text	Instit	Program	Title	Objective	Type	Method used	Maryland Scale
Andrade, M.V. and Peixoto	2008	Book Chap.	UFMG	Fica Vivo (Stay Alive), Bolsa Família (Family Allowance), Uerê, Paz nas escolas (Peace in Schools), Proerd, Apac	Evaluation of Cost/benefit of crime prevention and control programs in Brazil	Evaluation of primary, secondary and tertiary prevention programs	Outcome	Cost/benefit comparison of different types of program	3
Beato F., C/, Silveira, A., Leite, K.R., Souza, E.	2007	Book Chap.	WWC / USA	Community Advice, Fica Vivo (Stay Alive), Igesp	Citizen security in Brazil: Experience underway in Belo Horizonte. Citizen Security in the Americas- Active Investigation Project	Description of Citizen Security programs	Process	Interviews, official data, questionnaires	n/a
Soares, Rodrigo and Viveiros, Igor	2010	Paper	FJP	IGESP	Organization and Information in the Fight against Crime: An Evaluation of the Integration of Police Forces in the State of Minas Gerais, Brazil	Modeling IGESP Impact	Outcome	Regression Model	3

**Table 3.**

strategies which act at different levels of intervention. The preference in Brazil is for broader policies as opposed to programs and projects, explaining the immense difficulties in carrying out evaluations of outcomes as well as determining costs and benefits. The outcome is that it becomes impossible to ascertain exactly what is working and what is not.

Latin America is distinguished from the US by the dearth of evaluations of the numerous crime prevention programs. Even areas that have received attention, such as Bogotá, Cali, Medellín, or Diadema in Brazil, have been subject to only superficial evaluation of a highly preliminary nature (Beato 2002). The academic output and the documented experiences centered on the crime prevention programs and projects run in developed English-speaking countries, particularly England and the United States, far outnumber those conducted in the developing countries of Latin America, where this output and documenting of experiences remains scant.

Several characteristics contribute to this imbalance. The first of these concerns the poor state of information systems in public security. All exploratory studies or literature reviews on crime, violence, and the control policies in Latin America appear to either start or finish by highlighting the numerous shortcomings in the information bases on crime and violence. This is a serious situation which severely hampers performed studies as well as policies, programs, and projects on public security. The major challenge faced in crime studies across Latin America today involves the information bases needed for advancing toward the attainment of empirical proposals, as well as performing more sophisticated theory testing. Without this knowledge there can be no effective and meaningful actions.

The implications of this situation for the design and evaluation of security policies are clear. Policy-making in the crime and justice area is blindly based upon impressions, without guidance instruments. This state of

affairs has led to a sharp increase in crime rates, to heightened fear and greater perceived risk among populations in the large urban centers. The skepticism and disbelief over the apparent impossibility of obtaining results is leading to a 'banalization' of the phenomena of crime and violence, as if the public is doomed to live with fear and insecurity. It is fair to suggest that, when it comes to crime prevention, our own ignorance on the subject ranks high (Beato 2012: Chap. IV).

The specific impact of social policies and programs is even hazier, since the need for such projects is so pressing that any results attained, irrespective of the implications for the problem of crime, are associated with project success. No evaluations of these programs' costs in terms of the results achieved are available, nor on their effectiveness. What is their effective impact on rates of violence and crime? Which aspects work best? What timeframe is necessary for these to yield results? Which combinations are needed to produce the most promising results? How can unnecessary spending on well-meaning but ineffective approaches be avoided? The analysis of these questions is of growing importance, given the frequent shortage of resources which governments at many different levels face, coupled with the natural tendency of identifying and reworking crime prevention policies based on decisions derived from cost-benefit models. In summary, the challenge is how to generate data on the problems of security, how to transform this data into information, and how to translate this information into knowledge, which can provide a solid basis for actions that are ultimately assessable.

Another notable hindrance to progress is the shortage of professional managers specialized in crime and other techniques with the expertise needed to carry out diagnoses, implementation, monitoring and evaluation of programs of this nature (Bengochea 2004; Silveira 2008; Soares et al 2009). Latin America boasts very few specialists in crime

or in the evaluation of public policies in the field. The academic clout of the vast majority of North American prevention programs, which invariably involve the collaboration of universities and research centers not only in the conception and execution of the programs, but also in their monitoring and assessment, is rare in the Latin American milieu. Conversely, aversion and distrust still prevail in these nations.

In the specific field of Brazilian criminology, few academic centers are dedicated to the area, and even fewer study crime prevention and undertake empirical research into prevention. This also holds true for centers dedicated to public policies able to generate applied knowledge focused on the evaluation and devising of programs and projects. Although researchers dedicated to the study of violence in general do exist, the studies they produce are spread amongst a number of different disciplines such as the fields of health, education, law, sociology, political science, anthropology etc., with no specific focus on prevention programs (Minayo 2003; Cano 2006). This results in the publication of low academic output that is removed from the practical implementation of public policies. Again, this is in stark contrast with the North American academic scenario, which boasts a high volume of published papers, books, bulletins, research reports and sites on the internet describing experiences, providing manuals for implementing prevention programs, and disseminating results of evaluations of these programs, which evidences a strong link between academic research and public policy making and management.

Another important aspect of academic underdevelopment in Latin America is the scant amount of public resources available through government research funding bodies and agencies responsible for implementing public security policies, as well as private institutions dedicated to financing studies and commissioning studies on crime prevention and evaluations.

The specific case of Minas Gerais affords another perspective on the growing divide in recent years between universities and research centers, which could well be conducting evaluations of the actions implemented. Despite being one of the states in which this partnership was most developed, budget restrictions together with corporate interests have contributed to a widening of this gap. However, assuming this remains a strictly Brazilian problem is erroneous. In the plenary presentation at the meeting of the American Society of Criminology in 1998, the Director of the National Institute of Justice imagined a hypothetical and undesirable world in which the academic community was completely divorced from the interests of the practical nature of the criminal justice organizations:

I suppose we could imagine a world in which the academic community and the practice community did not communicate, except to criticize each other. We could imagine a world in which the academic community goes about its research, maintaining appropriate distance from the nitty-gritty world of practice, publishing in academic journals, and criticizing the crime policies of the country. In this same world, we could envision a community of practitioners who go about their business, doing what they thought best, criticizing the aloofness of academe, and ignoring the findings of research. Yet we clearly do not want to live in this world –we want to see some interaction between research and practice (Travis 1998).

Inadvertently, the director ended up painting a vivid portrait of the current situation in Brazil. Apart from some advances involving NGOs and a few research centers dedicated to this theme, the advances made are extremely limited. At present there is no pipeline of studies, evaluations and experi-

ments involving the police and these bodies. The relationship between the academic world and the practical world of implementing public policies in the area of justice deserves its own chapter. Tensions between these communities on issues such as the economy, health or education.

Another possible scenario is worth noting—one which Minas Gerais shares with other States; namely, the growing 'corporatization' of public security as practiced by the police forces. There are several mechanisms by which this corporate isolation manifests and leads to a dearth of solid evaluations of effectiveness. The first and most important is the corporate ownership of data and information, justified by a certain 'culture of secrecy,' a remnant harking back to the exception period during the military governments (1964–1985) (Bengochea 2004). The prevailing ideology of the intelligence community that persists within the police forces, and whose low degree of transparency serves as a limited version of the 'doctrine of national security,' is now applied to public security issues (Nóbrega 2010). There is a growing consensus among scholars on the subject that security is one of the sectors of the public administration that has least benefited from the process of democratization of the country. Over thirty years after the period of military governments, the sector remains wedded to dogmas which preclude the consolidation of a greater degree of scientificity, transparency and accountability.

Add to this the fear that, because the implementation strategy was established at a broader and more systemic level of public policy, public administration as a whole will be held accountable for negative evaluations that might emerge. It should also be mentioned that this is not a characteristic unique to Minas Gerais, but is common to the handful of States that have conceived and implemented public security policies. However, Minas Gerais is one of the states where this type of evaluation was systematically carried out and where pioneering partnerships were

forged, paving the way for expansion of this type of strategy.

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### Notes

- <sup>1</sup> The indicator is related to population access to 'five citizenship dimensions': Environmental (access to quality house and sanitation); Cultural (access to schools); Economical (access to work and incomes); Juridical (access to juridical support); Security to Survival (access to health services, alimentary security and public welfare).

### References

- Andrade, M V and Peixoto, B T** 2006 *Cost Effectiveness of violence programs in Brazil*. World Bank Report, n. 36525. Washington, D.C: World Bank.
- Beato, C F** 2012 *Crime e Cidade*. 1<sup>st</sup> ed. Belo Horizonte: Editora UFMG.
- Beato Filho, C C** 2002 *Crime and Social Policies in Latin America: Problems and Solutions*. Woodrow Wilson Center Update on the Americas. Available at <http://www.wilsoncenter.org/sites/default/files/CitizenSecurity7.pdf>. [Last accessed 18 April 2014].
- Beato Filho, C C** 2005 *Case Study "Fico Vivo" Homicide Control Project in Belo Horizonte*. Washington, D.C.: World Bank.
- Beato Filho, C C** 2008 *Compreendendo e Avaliando Projetos e Programas de Segurança Pública*. Ed. UFMG.



- Bengochea, J L P** et al 2004 A transição de uma polícia de controle para uma polícia cidadã, *São Paulo Perspec*, 18(1): 119–131. DOI: <http://dx.doi.org/10.1590/S0102-88392004000100015>
- Braga, A, Kennedy, D M, Piehl, A M** and **Waring, E J** 2001 *Reducing gun violence – The Boston Gun Project’s Operation Cease-fire*. Washington D.C.: National Institute of Justice.
- Cano, I** 2006 Políticas de segurança pública no Brasil: tentativas de modernização e democratização versus a guerra contra o crime. *Sur, Rev. int. direitos human*, 3(5): 136–155. DOI: <http://dx.doi.org/10.1590/S1806-64452006000200007>
- Centro de Estudos de Criminalidade e Segurança Pública** 2008 O Que é o IGESP. Informativo Crisp/UFGM: Crisp/UFGM.
- Cohen, L E** and **Felson, M** 1979 Social change and crime rate trends: a routine activity approach. *American Sociological Review*, 44: 588–608. DOI: <http://dx.doi.org/10.2307/2094589>
- Community Capacity Development Office- US Department of Justice** 2005 *Weed and Seed Implementation Manual*. Washington D.C.: US Department of Justice.
- Corrêa, D** 2007 Escola Viva e Comunidade Ativa. Unpublished dissertation (MA), Faculdade de Educação (UFGM).
- Ferreira, S G** 2011 Segurança Pública nas Grandes Cidades In: Bacha E, Schwartzman S Brasil: *A Nova Agenda Social*. Rio de Janeiro: LTC. pp. 287–313.
- Kelly, K D, Caputo, T** and **Jamieson, W** 2005 Reconsidering sustainability: some implications for community-based crime prevention. *Critical Social Policy*, 25(3): 306–324. DOI: <http://dx.doi.org/10.1177/0261018305054073>
- Machado, C V, Salvador, F G F** and **O’Dwyer, G** 2011 Serviço de Atendimento Móvel de Urgência: análise da política brasileira. *Rev. Saúde Pública*, 45(3): 519–528. DOI: <http://dx.doi.org/10.1590/S0034-89102011005000022>
- Mihalic, S, Irwin, K, Elliot, D, Fagan, A** and **Hansen, D** 2001 Blueprints for violence prevention. *Juvenile Justice Bulletin*, July 2001.
- Mihalic, S, Irwin, K, Fagan, A, Ballard, D** and **Elliot, D** 2004 Successful program implementation: lesson from blueprints. *Juvenile Justice Bulletin*, July 2004.
- Minayo, M C S, SOUZA, E R de** (Eds.) 2003 *Violência sob o olhar da saúde: a infra-política da contemporaneidade brasileira*. 1<sup>st</sup> ed. Rio de Janeiro: Editora Fiocruz.
- Morrison, S** *The city of Albuquerque, New Mexico – weed and seed, best practices: Evaluation-based series*. Washington, D. C.: US Department of Justice, Community Capacity Development Office.
- Muhle, E P** 2013 A prisão terrena no paraíso celestial: APAC, uma alternativa humana ao cumprimento da pena privativa de liberdade. Unpublished thesis (MSc) Pontifícia Universidade Católica do Rio Grande do Sul.
- Nóbrega Jr., J M P** 2010 A semidemocracia brasileira: autoritarismo ou democracia? *Sociologias*, (23): 74–141. DOI: <http://dx.doi.org/10.1590/S1517-45222010000100005>
- Peixoto, B** 2008 Uma contribuição para a prevenção da violência. Unpublished thesis (PhD). Cedeplar/UFGM.
- Peixoto, B, Andrade, M V** and **Azevedo, J P** 2008 Prevention and Control of Homicides: An Evaluation of Impact in Brazil. In: The Annual Meeting LACEA-LAMES 2008 on Rio de Janeiro.
- Peixoto, B G, L S, Cruz, S F V** and **Sousa, R** 2011 Reflexões sobre a atuação governamental na promoção da segurança pública (Belo Horizonte, 2003, 2010). *Texto para Discussão 2/2011*. FJP. MG.
- Rigakos, G** 1996 New right, new left, new challenges: understanding and responding to neoconservatism in contemporary criminology. *Critical Criminology*, 7(2): 75–91. DOI: <http://dx.doi.org/10.1007/BF02461115>

- Rolim, M** 2006 Prevenção e Fatores de Risco In: Rolim M. *A síndrome da rainha vermelha, policiamento e segurança pública no século XXI*. Rio de Janeiro: Jorge Zahar Editores.
- Sampson, R J, Raudenbush, S and Earls, F** 1997 Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277: 918–924. DOI: <http://dx.doi.org/10.1126/science.277.5328.918>
- Silva, J et al** 2009 Familiares e Pessoas Conhecidas de Usuários de Drogas Ilícitas: Recorte de Opiniões Sobre Leis e Políticas Públicas de uma Comunidade da Zona Oeste do Rio de Janeiro, Brasil. *Rev. Latino-Am. Enfermagem*, 17: 803–809. DOI: <http://dx.doi.org/10.1590/S0104-11692009000700008>
- Silveira, A M** 2007 Avaliação do programa Fica Vivo no morro das pedras em belo horizonte. Unpublished thesis (PhD), Universidade Federal de Minas Gerais.
- Silveira, A M** 2008 A Prevenção de Homicídios: a experiência do Programa Fica Vivo no Morro das Pedras, *Revista Educação & Realidade*, 33(2): 163–176. DOI: <http://dx.doi.org/10.1590/S0034-89102010000300013>
- Silveira, A, Assunção, R, Silva, B and Beato, C** 2010 Impacto do Programa Fica Vivo. *Revista de Saúde Pública*, 44(3): 496–502. DOI: <http://dx.doi.org/10.1590/S0034-8910201000030001>
- Soares, L E** 2006 Segurança pública: presente e futuro. *Estud. av.* 56: 91–106. DOI: <http://dx.doi.org/10.1590/S0103-40142006000100008>
- Soares, L E, Rolim, M and Ramos, S** 2009 *O que pensam os profissionais da segurança pública, no Brasil*. Brasília: Ministério da Justiça. Available at [http://www.rolim.com.br/2002/\\_pdfs/300809.pdf](http://www.rolim.com.br/2002/_pdfs/300809.pdf) [Last accessed 18 April 2014].
- Soares, R and Viveiro, I** 2010 *Organization and information in the fight against crime: An evaluation of the integration of police forces in the state of Minas Gerais*. F.J.P. MG.
- Soares, R and Viveiros, I** 2013 The program of Integration and Management in Public Safety in Minas Gerais: Brazil. A descriptive analyses. In: Cook P J, Machin S, Marie O, Mastrobuoni G *Lesson of Economics of Crime: What reduces offending?* Massachusetts Institute of Technology.
- Travis, J** 1998 *Plenary Presentation to the American Society of Criminology*. Available at <http://www.nij.gov/about/speeches/past-directors/Pages/asc.aspx> [Last accessed 18 April 2014].
- US Department of Justice** 2005 *Weed and seed implementation manual*. Community Capacity Development Office. Washington, D.C.: Department of Justice.

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