

**Alternate View Paper  
Violence and Crime in Latin America**

**Andrew Morrison\***  
**World Bank**

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**\* Andrew Morrison is a Lead Economist in the Gender and Development Group of the World Bank.  
The views expressed in this paper are those of the author and not of the World Bank.**

## **I. Overview of the Solutions Paper**

The Solutions Paper: i) reviews evidence on levels and trends in crime and violence in Latin America; ii) discusses, in summary fashion, the evidence on good practices in crime and violence reduction; and iii) presents four proposed solutions for Latin American countries, with benefit-cost ratios provided for three of the four proposed solutions.

The authors of the solution paper “Violence and Crime in Latin America,” (henceforth Cohen and Rubio) recognize that heroic nature of the quest to provide a benefit-cost analysis of crime and violence prevention initiatives for Latin America:

Unfortunately, most of the evidence [on what works is]...in the U.S. and to a lesser extent in the U.K. or Europe...The few programs [in Latin America] that have been evaluated or reported on as being promising have not had the benefit of independent reviews and thus should not be considered as reliable evidence. Indeed, it is not easy to find even a rough inventory of what is being done.

Faced with such a weak knowledge base from which to formulate public policy recommendations, few options are open to Cohen and Rubio. They adopt an eminently sensible strategy: survey the developed country literature on what works and what doesn't; locate benefit-cost estimates for those interventions which have been identified as having been successful in reducing crime; and propose as solutions for Latin America some of the interventions with attractive benefit-cost ratios.

While an eminently reasonable strategy, there are some problems in execution; these limitations will be discussed in more detail below. It is important to emphasize at the outset, however, that Cohen and Rubio have produced a solid Solutions Paper. They have been creative in identifying promising approaches to crime and violence reduction for Latin America, despite quite serious limitations of available information.

## **II. Strengths of Solutions Paper**

There is much to be praised in the solutions paper. As noted in the preceding section, the overall strategy adopted is sensible given the data constraints faced by the authors—principally, the lack of program evaluations in Latin America for interventions that might reduce crime and violence.

The authors are also correct in debunking the notion that crime and violence in Latin America are spiraling out of control, correctly noting that the evidence on *trends* “is not conclusive (p. 2).” At the same time, they also accurately note that the *levels* of violence in Latin America—at least as measured by the homicide rate—place the region as one of the world's most violent.

The four solutions to reduce crime and violence proposed by Cohen and Rubio are:

- Comprehensive programs targeting at-risk mothers and young children under age five
- Comprehensive program to deal with youth and gang violence
- Comprehensive prison treatment (sic) and reintegration program
- Domestic violence prevention and control

The solutions proposed by Cohen and Rubio fall within mainstream approaches to crime and violence prevention. A recent World Bank publication (World Bank, 2007) identified three sector-specific approaches to violence prevention (criminal justice, public health and conflict transformation and human rights) and three cross-sectoral approaches (crime prevention through environmental design, citizen security/public safety, and community-driven development/social capital). Three of the solutions proposed by Cohen and Rubio can be categorized primarily as public health approaches (although domestic violence and youth/gang violence prevention, depending upon the approach used, may also be labeled as criminal justice or human rights interventions.) Only one of the proposed solutions—comprehensive rehabilitation of inmates and reintegration of ex-offenders—falls unambiguously under the category of criminal justice. No cross-sectional approaches are recommended, presumably because of lack of benefit-cost estimates.

### **III. Different views on problem and solutions**

While the paper offers reasonable proposed solutions, it also has a few serious shortcomings which should be addressed:

- an incomplete discussion of domestic violence;
- an over-reliance on one landmark paper on the cost-benefit ratios of crime prevention measures;
- use of a somewhat out-dated paper on what works in violence and crime prevention, instead of more recent meta-analyses that could provide information on the relative effectiveness of specific approaches to crime reduction; and
- lack of attention to several promising (and potentially cost-effective) approaches to crime reduction.

*Incomplete discussion of domestic violence.* The authors claim that “there is no systematic data available by which we could judge the severity of the domestic violence problem in Latin America compared to elsewhere (p. 17).” While this was the case several years ago, it no longer is: the World Health Organization recently undertook a multi-country study in which it administered a comparable survey on intimate partner violence (see footnote 3 below) in 15 locations across ten countries (WHO, 2005).<sup>1</sup> Two

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<sup>1</sup> The term “domestic violence” currently is very infrequently used. Domestic violence implies that the violence takes place in the home, when in fact it can take place in public spaces or in the workplace. It also fails to distinguish between violence against women, child abuse and elder abuse. Thus, I use the term

of the 15 countries—Brazil and Peru—are Latin American. The results distinguish between lifetime and current physical and sexual violence committed by intimate partners, and between rates in rural and urban areas. The prevalence rate of physical violence in rural Peru was higher than in any other country or area in the sample, and the rate of physical violence in urban Peru was the third-highest rate among any country or area.<sup>2</sup> Prevalence rates of physical violence in Brazil, on the other hand, were at the lower end of the spectrum.<sup>3</sup> In terms of rates of sexual violence by intimate partners, neither country ranked particularly high. The bottom line is that there is evidence that prevalence rate of physical violence is unusually high in Peru; of course, whether this is the case in other Latin America countries must await expansion of the WHO survey to other countries.

There are also problems with the discussion of the risk factors for intimate partner violence (henceforth, IPV) on page 26. Cohen and Rubio identify the close correlates of IPV as poverty, unemployment and the lack of a social support network. These conclusions are based on a single—albeit interesting—study from Peru. More serious work on the risk factors for IPV identifies many more factors operating at the individual, relationship, community and societal levels, including witnessing IPV as a child, suffering abuse as a child, differences in age between male and female partners, neighborhood rates of crime, cultural norms that support violence, and norms that support male dominance over women (Heise, 1998; Morrison et al., 2007).

*Over-reliance on one landmark paper on the cost-benefit ratios of crime prevention measures.* Cohen and Rubio base their four proposed solutions with high benefit-cost ratios “on the analysis conducted by Aos and our review of the literature (p. 20).” There is no doubt that Aos’ (2004, 2005, 2006) work on estimating benefit-cost ratios is of seminal importance.

But there are several other studies that should have been consulted and which might have modified the list of proposed solutions. One key source is the series of benefit-cost studies for the U.S. summarized by Miller and Levy (2000). In particular, Miller and Levy are significantly less optimistic about benefit-cost ratios of prisoner rehabilitation than are Aos et al. (2006).<sup>4,5</sup> This finding is of particular relevance for Latin America,

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violence against women, which includes both intimate partner violence and sexual coercion by non-family members. For a fuller discussion, see Morrison et al. (2004).

<sup>2</sup> Demographic and Health Surveys also frequently contain questions about women’s experience with violence. Although there are problems about comparability of surveys and questions across different DHS surveys, a recent publication (Kishor and Johnson, 2004) corroborates that Peru may have unusually high rates of physical violence: Peru had the second-highest rate of lifetime physical violence of the nine countries included in Kishor and Johnson’s analysis (second only to Zambia).

<sup>3</sup> By way of illustration, 27.2% and 48.6% of women in urban Brazil and urban Peru (respectively) had suffered physical violence sometime in their lifetime. This compares with rates of lifetime physical violence in urban areas of 39.7% in Bangladesh, 12.9% in Japan, 30.6% in Namibia, 22.8% in Serbia and Montenegro, 22.9% in Thailand, and 32.9% in Tanzania. See WHO (2005) for details.

<sup>4</sup> While Aos et al. cite benefit-cost ratios of drug treatment inside and outside of prison as a crime prevention strategy of 5.9 and 18.5, respectively, Miller and Levy’s for these programs are 0 and 2.9, respectively. Similarly, in-prison vocational education and basic education have much higher benefit-cost

since prisons and social service agencies are far less prepared to offer rehabilitation services than their counterparts in developed countries. In particular, the infrastructure of prisons in Latin American countries is so precarious that significant investments in improving the physical environments in prisons would be needed before investments in rehabilitative services for inmates would have any possibility of being successful. This raises the cost of the total intervention package, and—given the significantly lower benefit-cost ratios for prisoner rehabilitation programs provided by Miller and Levy for the United States—calls into question whether such programs are an attractive investment for crime prevention in Latin America. ...

Cohen and Rubio report that they are unable to find benefit-cost ratios for programs designed to reduce IPV, and it is true that the standard sources (Aos et al. and Miller et al.) do not report benefit-cost ratios on programs to reduce IPV. Indeed, the only benefit-cost analysis available in this area examines the cost-effectiveness of the U.S.'s 1994 Violence against Women Act, which provided U.S. \$1.6 billion over 5 years to “increase penalties for perpetrators and improve resources for police, prosecutors, and victim service providers (Clark et al., 2002).” Clark et al., using cost components of crime developed by Miller et al. (1996), find a benefit-cost ratio of 9.25. While there are no benefit-cost ratios available for developing country initiatives to prevent violence against women generally or IPV specifically, the cost-benefit estimates for the Violence against Women Act are particularly relevant for large number of Latin American countries which have adopted national plans to address violence against women.<sup>6</sup>

Finally, there is one “pseudo” cost-effectiveness study that provides important information on the potential cost-effectiveness of nine important crime and violence prevention initiatives in Brazil (World Bank, 2006).<sup>7</sup> The terms “pseudo” and “potential” are used because—in the absence of studies on the effectiveness of the specific interventions in Brazil—effectiveness data were imported from meta evaluations of substantially similar interventions in developed countries and compared to data on the

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ratios in Aos than in Miller and Levy. On one key point the two authors are in full agreement: cognitive-behavioral therapy for inmates or ex-offenders is extremely cost-effective. Even here, however, the precise benefit-cost ratios diverge significantly. While Aos et al. report a cost-benefit ratio of almost 100 for cognitive-behavioral therapy in prison or the community, Miller and Levy report a much lower (but still impressive) ratio of 33 for moral reconnection therapy, one of the leading forms of cognitive-behavioral therapy. These significant differences in benefit-cost ratios between Aos and Miller/Levy buttress the need to broaden the scope of benefit-cost ratios used to inform policy selection in the Solutions Paper.

<sup>5</sup> Even within the stream of research by Steve Aos and co-authors, it seems the Cohen and Rubio are using a less-than-up-to-date version of this work. Citing Aos et al. (2004), Cohen and Rubio provide a benefit-cost ratio of 2.88 for a home visitation program by nurses. More recent research by Aos et al. (2006), however, provides a benefit-cost ratio 18.5 and 21.6, depending on whether the visiting nurse works with the mother or children, respectively.

<sup>6</sup> Even more basic studies on the effectiveness of programs to address violence against women are rare for developing countries. For a study which summarizes the small amount of evidence about what works in developing countries, see Morrison et al., 2007.

<sup>7</sup> It is important to distinguish between cost-effectiveness and benefit-cost analysis. Cohen (2002) provides a useful definition: “Unlike benefit-cost analysis, which requires all benefits and costs to be expressed in monetary terms, cost-effectiveness only requires that costs be monetized. Benefits still need to be expressed in some common denominator—such as comparable crimes, comparable injuries, lost years of life, and so forth.”

cost of these interventions in Brazil. While this procedure is subject to a host of criticisms (most importantly, that individual initiatives in Brazil will not have the mean effectiveness of similar initiatives conducted in other countries), it does provide the first-ever estimates of cost-effectiveness for violence and crime prevention initiatives in a Latin American country; as such, these estimates are highly relevant for the Solutions Paper. This study finds that the secondary prevention interventions Fica Vivo and Paz nas Escolas are the two most cost-effective of the nine prevention and control initiatives examined.<sup>8</sup>

*Use of out-dated information on what works in violence and crime prevention.* The authors rely on the seminal paper by Sherman et al. (1997) to identify what works and what doesn't in crime and violence prevention. In large part due to the short time available to complete their study, Sherman et al. simply classify what works as all programs that have at least two reasonably rigorous studies supporting effectiveness and an effect size (if reported) of at least one-tenth of a standard deviation.

To put it quite bluntly, the literature has advanced significantly since the Sherman review paper, and more sophisticated analyses of what works in crime and violence prevention are now available. In particular, the meta evaluations produced by the Campbell Collaboration and by Mark Lipsey and co-authors are particularly valuable.<sup>9</sup> By surveying a critical mass of impact evaluations and presenting their results with a common yardstick, meta-analyses provide a very careful measure of the impact of specific approaches to crime and violence prevention. To the extent that the outcome measures used are consistent across meta-evaluations, they can also provide information on the relative effectiveness of specific approaches to crime reduction.<sup>10</sup> In contrast,

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<sup>8</sup> Fica Vivo (Stay Alive) is a homicide prevention program that originally targeted a poor neighborhood (Morro das Pedras) in Belo Horizonte characterized by very high homicide rates. It has since been expanded to all of Belo Horizonte and to the state of Minas Gerais. The program is classified as secondary prevention because of extensive activities targeting at-risk youth, but is also has important elements of problem-oriented and hot-spot policing. It also attempts to improve coordination between law enforcement and social service providers. For more details on the program, as well as a serious evaluation of its impacts, see Almeida de Matta and Viegas, n/d. The program Paz nas Escolas (Peace in Schools) works with teachers, student organizations and police to promote non-violence in schools. For more information of the program, see [www.mj.gov.br/sedh/paznasescolas](http://www.mj.gov.br/sedh/paznasescolas).

<sup>9</sup> The references to Lipsey's work are provided in the references section. The Campbell Collaboration has conducted meta analyses in many areas; some of those most relevant to this solution paper are incarceration-based drug treatment, correctional boot camps, custodial vs. non-custodial sentences, non-custodial employment programs, hot-spots policing, Scared Straight and other juvenile awareness programs, and police-led drug enforcement strategies. Many more meta-analyses are underway within the Campbell Collaboration, including: cognitive-behavioral programs, cost-benefit analysis and cost-effectiveness of sentencing, school bullying prevention programs, closed circuit television surveillance, face-to-face restorative justice, street lighting, school-based cognitive-behavioral anger interventions, electronic monitoring, mentoring programs, police strategies for reducing illegal possession and carrying of firearms, programs for violent and chronic juvenile offenders in secure corrections, and neighborhood watch. See [www.campbellcollaboration.org](http://www.campbellcollaboration.org) for details.

<sup>10</sup> Meta-evaluations of course do not address either cost-effectiveness or cost-benefit, but simply effectiveness.

Sherman's study classified interventions into three very broad categories (works, doesn't work, promising), frequently based on a very small number of impact evaluations.

*Lack of attention to several promising approaches to crime reduction.* As Cohen himself notes in his 2000 article "Measuring the costs and benefits of crime and justice", one of the major shortcomings of the Aos et al. benefit-cost analyses is that they do not include policing and sentencing policies. Nor do they include the cross-sectoral approaches outlined above: crime prevention through environmental design, citizen security/public safety, and community-driven development/social capital.<sup>11</sup> Thus, it is not surprising that the Solutions Paper does not propose actions in these areas, since it bases its recommendations almost exclusively on the benefit-cost estimates of Aos et al, supplemented by Sherman's analysis.

Policing policy has undergone a veritable revolution in recent years. Hot-spot policing, community policing, and problem-oriented policing, and, to name just three of the most commonly used and analyzed approaches, have been used both in OECD countries and in Latin America.

Randomized experiments have shown the utility of hot-spot policing in the United States as a crime control strategy (Braga, 2001). One might suspect that hot-spot policing might be an even more important and effective strategy in Latin America, given the very low clearance rates for many crimes. The only evidence on that score comes from the previously mentioned study by Matta and Viegas (n/d), which shows that the Fica Vivo program in a low-income neighborhood of Belo Horizonte (which involved both prevention initiatives oriented towards youth and hot-spot policing) led to a reduction in crime that was 2.7% larger than that obtained in the city as whole.

There are very few studies examining the impact of community policing on crime in Latin America; tentative evidence from Guatemala and Costa Rica seems to suggest that these programs are much more effective at improving police-civil society relations than they are at reducing crime victimization (Chinchilla, 2004; Chinchilla, 1998). Unfortunately, benefit-cost estimates are not currently available for these various approaches to policing.

The lack of attention to CPTED is a serious omission, since CPTED has been shown to generate significant reductions in crime in quite short time horizons; a meta-analysis of multiple-component CPTED initiatives in the United States finds that they decrease robberies between 30 and 84% (Casteel and Peek-Asa, 2000).<sup>12</sup> A careful impact

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<sup>11</sup> Admittedly, the latter two approaches are more common in developing than in developed countries—so it is not surprising that they were omitted from a benefit-cost study for the U.S.

<sup>12</sup> CPTED relies on physical modification of the built environment to reduce criminality. It usually involves improving natural surveillance, access control, territorial reinforcement (to promote ownership of space) and maintenance. Recently, the concept of "place-specific crime prevention" has begun supplanting CPTED. Place-specific crime prevention goes beyond environmental design to include considerations of *management* of physical space (Feins et al., 1997). It should be noted that some authors (see Roman and

evaluation of the Transmilenio public transit program in Bogota, which has important CPTED elements, found that it decreased commercial robberies by 78%, robberies of individuals by 90% and homicides by 95% along one corridor where Transmilenio was built (Moreno, 2005). Unfortunately, benefit-cost or cost-effectiveness estimates for CPTED do not seem to be available.

The authors' decision to exclude from consideration programs designed to keep youth in school is perplexing, especially given their recognition that "many of these programs appear to have significant crime-related benefits—often high enough to justify the program solely on the basis of crime reductions."<sup>13</sup> Conditional cash transfer programs are a common feature of the Latin American landscape and perhaps the most common approach to maintaining at-risk youth in school. Not only are they one of the easiest crime-prevention initiatives to bring to scale (of course, they have multiple benefits beyond crime reduction), but they have been the subject of several high-quality impact evaluations that demonstrate their effectiveness (at least in the cases of Bolsa Escola in Brazil and Oportunidades in Mexico).<sup>14</sup>

Finally, citizen security approaches—incorporating interventions across sectors to address multiple risk factors and multiple forms of crime and violence—have been employed with notable success in several Latin America cities (Lamas et al., 2005).

In sum, Cohen and Rubio face a serious dilemma: there are several *extremely promising* approaches to crime and violence reduction for which benefit-cost estimates are not available, but for which evidence of effectiveness is available from OECD countries and, in some cases, from Latin America itself. The authors have established the precedent for including as a proposed solution an intervention (domestic violence prevention) for which they claim no benefit-cost estimates are available.<sup>15</sup> Why, then, should policing reform, crime prevention through environmental design and the integrated citizen security approach be excluded?

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Farrell, 2002) are skeptical of the ability of existing benefit-cost methodologies to capture all the relevant benefits of situational crime prevention.

<sup>13</sup> The authors justify this exclusion only by noting that "these are programs that are more appropriately reviewed in a paper on education." This is peculiar logic, since the same argument could be used to relegate comprehensive programs targeting at-risk mothers and young children—one of the proposed solutions—to a paper on early childhood development. The basic point is that programs which have multiple benefits beyond crime reduction should be included in the analysis.

<sup>14</sup> In the cost-effectiveness study in Brazil cited above (World Bank, 2006), Bolsa Escola was found to be the fifth most cost-effective crime prevention program out of nine studied in Brazil.

<sup>15</sup> Though, as was documented above, there is at least one study which does provide a benefit-cost estimate of a national program to address violence against women. It is worth emphasizing once again that this Alternative View Paper strongly supports the inclusion of the prevention of violence against women as one of the proposed solutions. The relatively high benefit-cost ratio found for the Violence against Women Act in the U.S. simply buttresses Cohen and Rubio's intuition that this is an attractive policy option.

#### IV. Additional solution

The rules of the game of the Copenhagen Consensus and the Consulta de San José 2007 limit authors of Alternative View Papers to proposing *one* additional solution. Benefit-cost analysis, the metric of the Copenhagen Consensus, cannot be used to rank the relative attractiveness of the promising approaches (policing reform, crime prevention through environmental design and the integrated citizen security approach) that were omitted from the Solutions Paper; cost benefit estimates are simply not currently available for these approaches. Nor is it appropriate to exclude these approaches from consideration, since reasonably persuasive evidence for their effectiveness is available.

Given this situation, what type of logic can guide the choice of solution? Any additional solution should:

- i) have a *preponderance of evidence* showing its effectiveness;
- ii) produce impacts in a *relatively short time horizon*, given the important role that discount rates play in determining benefit-cost ratios;<sup>16</sup> and
- iii) be relatively *simple to implement*.

One the basis of criteria (i), integrated citizen security approaches cannot be strongly recommended. They are indeed promising, but the impact evaluation evidence is not yet strong enough. As noted above, there is scientific evidence of the effectiveness of both CPTED and hot-spot policing in terms of reducing criminality—and, in both cases, there is at least one impact evaluation study documenting that the approach has worked in Latin America.

Both CPTED and hot-spot policing are capable of producing results in a very short time frame. CPTED, however, has the advantage in terms of simplicity of implementation. Hot-spot policing requires significant institutional change in the police. Data from geographic information systems (GIS) must be made available to police in real-time in order to both allocate resources and to evaluate results. Police decision-making must be decentralized, and decentralized commanders must be held accountable for their performance. This shift toward information-based and decentralized decision-making is nothing less than a seismic shift in police culture and organization—and consequently is far from simple to implement.<sup>17</sup> CPTED, on the other hand, only requires modification in the built environment. Even the more sophisticated place-specific crime prevention, which adds the management of the physical environment (see footnote 12), is well within the capabilities of most municipal governments in Latin America. Thus, while hot-spot policing will pay high dividends if successfully implemented, ***CPTED must be recommended as the additional solution because it has more realistic probabilities of success.***

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<sup>16</sup> Obviously, the size of costs and benefits (and their distribution over time) also matter, but at this time there is no information on these costs and benefits for these interventions.

<sup>17</sup> Despite these challenges, success in implementing hot-spot policing has been achieved in Belo Horizonte (see the discussion of the Fica Vivo program above) and—although the evidence is still tentative—in the Barrios Seguros program in the Dominican Republic (see World Bank, 2007).

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