Measuring the impact of law enforcement on organized crime

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Abstract This article explores the possibility of measuring the impact of law enforcement on organized crime in a reliable and accountable manner, both in general terms and with a practical focus on the Canadian context. In considering measures to combat organized crime, a focus on process measurement has obscured the more substantial question of progress as regards the dependent variable itself: the bottom line of reducing the impact of organized criminal behaviour. While outcome measures are more challenging to identify than process measures, this fact alone does not minimize the need to demonstrate the connection between organized crime enforcement and its presumed outcomes to a greater degree of certainty. To date, this has not been realized to any significant degree, as revealed by a review of existing international approaches to measuring the impact of enforcement activity. The article argues that a multidisciplinary focus on community level indicators of crime, if initially less accessible than process measures of impact on organized crime groups, offers promise as a measurement of absolute and relative impact of state investment in enforcement.

Keywords Organized crime · Accountability · Performance measurement · Evaluation · Canada · Federal policing · Criminal intelligence · Comparative enforcement

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Criminal Analysis, Royal Canadian Mounted Police (Pacific Region), 5255 Heather St, Vancouver, BC, Canada V5Z 1K6 e-mail: a.castle@rcmp-grc.gc.ca What is the impact of law enforcement activity on organized crime, and how would we know it if we saw it?¹ For the administration of organized crime enforcement strategies, there can be no more essential question. However, in the substantial body of knowledge, argument and opinion developed by police, bureaucrats, academics and journalists on the subject of "organized crime" in the past four decades, this question has frequently been eclipsed by other concerns.

In particular, much has been written on the nature or definition of organized crime (Hagan 2006), by those wondering (for example) how organized it was (Reuter 1983); whether it was naturally an alien, "foreign" issue or a domestic challenge (Bell 1962); or whether the rhetoric surrounding it was overblown and the response heavy-handed, either for cynical political reasons or due to ignorance or sloppy scholarship (Naylor 2002; Beare 2003a, b; Sheptycki 2003). The collapse of the Soviet Union and the consequent lawlessness and criminal opportunism in that part of the world generated another substantial literature, much of which suggested a substantial threat to Western societies as well as to those in the former Eastern bloc (Sterling 1994; Shelley 1995; Kerry 1997; Adamoli et al. 1998); it was also suggested that "transnational organized crime" had emerged with some characteristics that were comparable to the international expansion of licit business in the twentieth century (Williams 1995). Others have wondered whether organized crime and terrorism were converging (Dishman 2001; Sanderson 2004).

Flowing logically from issues of definition is the question of legislative change, the task of providing police and prosecutors with tools to single out and counter criminal actors whose perceived threat and capacity were beyond the resources of historical judicial response. Changes in national legislation such as the RICO provisions in the United States, or in Canada the series of legislative developments concerning "criminal organizations" (CCC^2 467.1) have been hastened and standardized by (and have also conditioned) the United Nations Conventions of 1988 and 2000 dealing with matters of illicit drugs, organized crime and money laundering, as well as by earlier instruments.

A second significant discussion, primarily within policing and government circles although certainly spurred on by external critique, emerged from the realization that intelligence functions within law enforcement—both within states and internationally—were, until very recently, trivial, under-funded, marginalized, unprofessional and in essence anecdotal (Reuter 1983). Although the conflict between "Islamism" and its self-identified Western opponents has led recently to broad remedial measures in many countries aimed at improving intelligence infrastructure and performance, it is important to recall that many of these changes were already identified as necessary from an analysis of conventional policing in the years prior to 2001, and it is in fact from this earlier era that the phrase "intelligence-led policing"

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² Criminal Code of Canada, hereinafter CCC.

dates. In particular, the apparent expansion of international drug markets in the 1980s and 1990s, a policy focus on new criminal actors internationally (for example, South American cocaine exporters) and domestically (in Canada, for example, the emergence of the Hells Angels as a headline-making criminal phenomenon), and international calls for improved knowledge regarding organized crime as a component of international instrumental response (such as the 1988 or 2000 UN Conventions), all laid bare how little police agencies and their governments were able to produce in terms of their own knowledge of the principal source of concern.

But in the discussions over exactly what organized crime is or is not, and over whether we had the tools to identify the threat and support an appropriate response, lost was the matter of how effective our responses are in combating organized crime— do they work? Although there was no shortage of statistics on enforcement successes related to the project of controlling organized crime—spurred on by the requirements of the 1988 UN Convention, comparable drug seizure statistics and other metrics are available in quantity and reasonable quality across the developed world and in much of the developing world—the relationship between means and ends in analysis of these statistics became blurred. Did a large seizure of cocaine have an impact on local or national drug markets? on the organizations involved in growing and selling the drug? on the individual consumers? Furthermore, what amount (of e.g. drugs, vice activity, fraud, money laundering) would need to be apprehended, confiscated, or otherwise stopped to cause an appreciable, noticeable, or *measurable* difference to the communities funding police responses to these harms?

It is of course unfair to suggest that these sorts of questions should have been answered at the time. There is no way that they could have been, because as noted above the only means of establishing the scope of the challenge facing law enforcement agencies and the utility of their methods-namely, a well-developed and competent intelligence program—was absent, and this may be said practically regardless of the jurisdiction. We can be certain that we will never know the true extent of criminal activity or the absolute number of active criminals. But while those may be "unknowable," another long-standing (remediable and therefore more regrettable) shortcoming in our knowledge has been an inability to see and comprehend the information that is held by law enforcement. For the longest time we (law enforcement) did not know what we knew. The belated discovery of prior intelligence regarding the hijackers in the attacks on the United States in 2001 is only one of the more high profile examples of this internationally. The problem of an inability to collate and analyze police information (held in electronic databases, file cabinets, and desk-drawers, and by police officers themselves) was and in many ways still is a challenge shared across the world of law enforcement.

However, there is now some cause for optimism. The growth since 2000 of intelligence programs producing credible intelligence of genuine use and interest to the enforcement "side of the house" is an observable trend in Canada and many other countries. It must be admitted that implementation is at times erratic and still noticeably incomplete. Nevertheless, the gains in our ability to aggregate our collective knowledge of organized crime are such that for the first time we can begin to think about not only what it is, and how we respond to it, but whether our responses are effective. As such, there is the prospect of a model of impact, efficacy and (importantly, for police, government and the public) accountability of state

efforts to combat organized crime. These advances notwithstanding, the project is by no means complete, as the tools commonly used to gauge effectiveness within the public safety domain may be insufficient in this case.

This paper explores the possibility of measuring the impact of law enforcement on organized crime in a reliable and accountable manner. Its argument is intended to be generally applicable, while drawing most often on the Canadian experience given the author's experience. First, I discuss the theoretical and practical challenges of demonstrating the effectiveness of any police technique with respect to organized crime, whether internally or for public consumption; in this section I also consider approaches in use or under development in Canada itself. Second, existing approaches to measuring the impact of enforcement activity are discussed with reference to existing evaluation, and current governmental practice is compared using examples from a range of jurisdictions geographically, economically or culturally similar to Canada. A third section deals with the prospects for alternative measurement practices. The paper concludes with a set of recommendations regarding the necessary research, data and organizational provisions necessary to construct a viable outcome measurement regime.

To anticipate the paper's conclusion, my argument is that it is community level indicators of crime and other "outcome" variables, rather than "output" measures of impact on organized crime groups, which offer the most persuasive route to an accountability model. We have failed to do this to date because law enforcement and its governmental sponsors, nationally and internationally, have historically fallen into two avoidable but seductive methodological traps. Because it is hard to know how action against one target affects the larger whole, we have come to focus on what we have done to that target as an inherently good outcome with an assumed proportionate impact worthy of the associated expenditure. In other words, 'success' is given no context, and we have believed the task of providing context to be too great. In addition, we have come to believe or suggest that outcomes in terms of judicial process equate to factual damage to the prospects of our targets, without taking steps to operationalize and measure outcomes in a persuasive manner. Yet the choice apparently on offer-measuring system outputs without regard for overall impact, or addressing the methodological challenges of harm or impact assessment-is no real choice at all. The sustainable option is the latter, admittedly the more difficult of the two.

Demonstrating efficacy against organized crime and criminal organizations

Knowing our impact on organized crime requires that we understand the phenomenon itself. As regards the essential nature of organized crime, there is a large and growing literature on the definition of this phenomenon (Finckenauer 2005; Neal 2007). There is no intention to make any lengthy contribution to this discussion here. It is sufficient to note that we are dealing with a form of criminal behaviour which exhibits purposive—i.e. not random—patterns of organization and cohesion, and that the purpose of this patterning is overwhelmingly to make money from crime. Two brief observations are warranted, however, regarding the manner in

which our definitions of the phenomenon have altered our legal and operational focus.

First, virtually all of the organized crime legislation currently in place worldwide (in effect, state definitions of organized crime) has its origins in an era (1955–1995) when knowledge of organized crime was articulated in a semi-formed, anecdotal manner heavily influenced by sensational events (high profile kidnappings/murders, witness testimony, or even by fictionalized accounts). The opinions, "knowledge" and influence of the media and of politicians heavily outweighed those of police officers (whose data if stored was neither collated nor analyzed) and researchers (who did not even have much access to bad data, let alone good). In other words, organized crime has been defined in the relative absence of knowledge.

Second, the sensational nature of organized crime, and the fluctuating definitions found in both scholarly and non-scholarly treatments of the issue, have combined to turn the focus of policy towards the agents (as opposed to the outcomes) of organized crime, towards legislative tools designed to identify and incapacitate those agents, and towards measurements of success in terms of tangible impacts on those agents themselves. Lost is a sense of urgency to demonstrate why we continue to focus resources on this hard-to define criminal population, let alone how we are doing in that area. As Finckenauer (2005) suggests, the term organized attracts more academic focus than does *crime*. The implication is that our academic and operational attention is drawn to the manner of acting, as opposed to the impact of the crimes themselves and of our efforts at mitigation.

Taken together, this means that discourse surrounding the efficacy of antiorganized crime measures has focused on agent-level outputs. But what should a successful anti-organized crime strategy look like? Ideally, viewed after the fact, it will have lessened the criminal activity associated to organized crime; it will have done so by a substantial amount and certainly by an amount which is proportionate to the expenditure of resources and application of punishments employed considering that those resources may be spent in a discretionary manner in other areas of policing, or at the discretion of government, in other areas entirely.

Since the late 1990s, police agencies in Canada have individually and collectively attempted to place themselves on an intelligence-led operational footing. This has taken several forms. Municipal police, provincial police forces and the RCMP have all invested in expanded intelligence capacity and training. Collaborative intelligence processes, including a number of bilateral and multilateral initiatives, but above all efforts to establish an integrated national threat assessment on organized crime supported by a common methodology assessing organized crime across 19 separate criteria ("SLEIPNIR"; RCMP 2000), have brought the intelligence holdings of a growing majority of police agencies into a shared and commonly analyzed setting. Although there is no recent data on HR growth in the intelligence analysis field, the capacity of policing in this area has probably tripled since 2000 based on the writer's observations. Significant (although probably insufficient) investment has been made as well into contemporary IT/database support for the retention, analysis and sharing of police information and intelligence. Finally, new collaborative field techniques have brought operational intelligence more closely in line with the needs of substantive enforcement units.

Canada is not alone in implementing these sorts of changes, although the degree of interagency cooperation achieved has for a variety of reasons probably been superior to that of a number of other states. The operational model of policing response (enforcement and intelligence) adopted with respect to organized crime is also similar to that advocated or implemented elsewhere—however, with the exception of the UK's National Intelligence Model, few other approaches have been outlined to a similar degree of detail.

The Canadian response to organized crime presumes the following process (explicit in the RCMP "operations model" elaborated 1998–1999 and in other police forces' internal schema, but generally followed by the policing community):

- Significant organized crime targets can be identified in advance of resource intensive enforcement actions, via the analysis of existing police information and the proactive cultivation of human source and other data sources. Targets of immediate opportunity must also be addressed but the capacity to identify and target criminal organizations proactively must be nurtured and defended organizationally.
- On an ongoing basis (at a minimum annually, but ideally in a real-time, "living" manner), known organized crime can and should be parsed by analysis into targets of lesser or greater priority, according to the threat posed by the group to the public (identified through the SLEIPNIR method). The definition of a criminal organization adopted, for practical purposes, is that outlined in CCC 467.1 (as above).
- The entire catalogue of known organized crime, and the relative threat posed by individual criminal groupings, is to the greatest degree possible shared widely and routinely amongst the Canadian police community under the auspices of the Criminal Intelligence Service of Canada, but subsets of this data are also routinely shared amongst agencies at all levels as operational requirements dictate.
- Proactive enforcement actions against known criminal organizations are undertaken to completion, or to a dead end, either by individual police agencies or in a collaborative manner where targets are deemed to be of considerable national, regional, provincial or local significance.

Eight years after the elaboration of the RCMP operations model and 5 years after the first of the annual integrated threat assessments appeared, the scheme outlined above increasingly bears resemblance to actual practice, which is arguably a substantial achievement. Annually, the best part of a thousand putative criminal organizations are currently identified (CISC 2006). National and provincial priority targets are established collaboratively. Enforcement actions, dependent on recent actionable intelligence and availability of scarce resources, occur with respect to both proactive and reactive opportunities against a relatively small subset of known criminal organizations. However, the availability of better intelligence, giving operational commanders improved knowledge and awareness of the landscape of known organized crime, means that strategic decision-making has increasingly come to rival (though not completely displace) ad hoc and arbitrary target selection.

What measures exist to show whether or not this approach is working? Old habits die hard: it must be said that Canadian police agencies, public safety bureaucrats, 2 Springer

politicians and the media remain comfortable with the anecdote as a means of demonstrating success: the press conference with a stack of drugs on a table, identification of enforcement success against senior organized crime figures, or attention to significant takedowns and seizures at border crossings, are all frequently offered as confirmation of progress. However, more rigorous alternatives may be available.

First, within the national threat assessment methodology itself lies a mechanism for identifying outcomes. After several years of artificial growth in the nominal target base due primarily to improvements in data collection methodology, the curve has flattened out suggesting that police agencies are now recording and analyzing all that is known, or as much as can be reasonably aggregated, about organized crime groups (CISBC 2007).³ The SLEIPNIR method provides a well-articulated and improving⁴ set of operational definitions or "business rules" regarding the attributes of organized crime groups (including violence, corruption, mobility, cohesion, specialized skills and other capacity) which can be tracked over time. This has the potential to provide a picture both of the trajectory of an individual group—if targeted, how has intervention by law enforcement and other consequential developments affected the group's capacity?—and of the collective mass of known organized crime in whichever jurisdiction is subject to analysis. Note that in this there is nothing magic about the application of SLEIPNIR, as the same would be true of any methodology applied commonly and continuously.⁵

However, there are obvious limitations to such an approach in terms of its ability to answer the question posed at the outset of this paper. SLEIPNIR was never designed to be a harm measurement device. At best it can tell us how we are doing against the criminals that we know about, but that is not the only concern. The major limitations of this methodology may be summarized as follows:

- Inherently and obviously, the trends identified will be those pertaining to known criminal organizations. As police intelligence capacity is finite, as knowledge is more abundant where we search and less abundant where we do not, and as skill and sophistication may allow many substantial criminal organizations to remain undetected, this method tells us very little if anything about how we are doing regarding organized crime overall (Homel and Willis 2007).
- Where an upward or downward trend in the threat or capacity of one or more criminal organizations is detected, the tools available in the SLEIPNIR method

³ In the province of British Columbia, for instance, the number of criminal organizations identified according to reporting year (Criminal Intelligence Service of British Columbia 2007) was 52 (2003), 84 (2004), 108 (2005), 124 (2006), and 129 (2007).

⁴ The development of SLEIPNIR was led by Steven Strang of the RCMP's Criminal Intelligence Directorate through iterative consultations with subject matter experts, and the tool was implemented by the RCMP circa 2000. The model has been widely adopted within the Canadian criminal intelligence community. A revised version is currently under development.

⁵ Although SLEIPNIR has, for good reason, a near monopoly position in terms of the methods used by Canadian police agencies to assess their target bases, work continues in several agencies on a complementary model based on Social Network Analysis. While this approach may yield more reliable analysis of the structure and relationships amongst criminals and the manner in which they collaborate strategically, its limitations with respect to its data universe (police-identified targets) are identical to the ones detailed for the threat measurement approach in the following paragraphs.

are insufficient in many cases to establish whether this was due to police intervention or to some other unrelated factor; that is, correlation with police actions can be identified but causation may remain elusive. The large number of possible causes of change with respect to any individual target group makes this problem particularly acute at the level of micro analysis—broader based correlations may be more fruitful, as suggested below.

• Finally, the nature of the methodology in terms of core data collection, which unavoidably amounts to qualitative judgements by small groups of analysts based on partial data, renders the conclusions that can be drawn partial at best. No matter how skilled and experienced the analyst and no matter how carefully crafted the operational definitions are within the method, key facts will always remain beyond the grasp of those asked to describe and analyze criminal organizations. Monopoly cannot be judged where the full market size is not known. The deterrent effect of extortion is not much easier to assess than the deterrent effect of jail or military weapons. The disruption or diminution of a criminal organization is extremely hard to establish (Gabor 2003:15) when the wealth and connections of the targets may be unknown to investigators, when the organization may have been supplanted by a competitor unbeknownst to police, and indeed when the length of time required to make reliable judgements is measured in years rather than weeks or months.⁶

None of this is to suggest that SLEIPNIR is an ineffective tool or that the process is not a valuable one. Far from it—for a number of years SLEIPNIR has had the distinction of being not only (probably) the most fully articulated tool available internationally for measuring criminal organizations, but also having attracted a near consensus on its application nationally. It is an essential component of strategic operational resource allocation and post hoc strategic analysis of the business of policing organized crime. It has also performed the valuable service of standardizing the way information on criminal organizations is gathered and analyzed across Canada.

But as effective as it is in shining a light on what we know about criminal organizations over time, it cannot tell us how we are doing regarding organized crime and how that crime is experienced at the community level. A positive impact may be implied, but it is never demonstrated. In principle and in practice, further and different measurement tools are required to provide accountability. As a consequence, the current situation in Canada does not reveal any attempt or indeed ability to link the expenditures and initiatives associated to combating criminal organizations with outcomes in terms of organized crime. The assumption is that the one will lead to the other, but the limited quantitative analysis in (e.g.) the 2006 CISC Annual Report on Organized Crime is given over exclusively to the metrics of

⁶ Acknowledgement of the third of these three limitations—the data gathering challenges inherent in measuring impact via SLEIPNIR—has led to recent efforts in Canada to establish a stand-alone measure of "disruption" which takes as its more direct focus judicial, economic and other punitive or limiting effects on the capacity of criminal organizations. At present, however, the data available via this method is identical to that available to analysts applying the SLEIPNIR tool. There is considerable merit in this approach in principle, but a well governed and interdisciplinary data collection strategy distinct from standard criminal information gathering is necessary for the value of such a model to be realized.

tackling criminal organizations (CISC 2006). At best, community level outcomes are referred to via anecdote. At worst, they are ignored entirely.

Existing approaches to accountability and measurement

In the absence of a satisfactorily implemented model in Canada linking enforcement empirically to outcomes in a rigorous manner, both academic guidance (in terms of the evaluation literature) and practical external examples are logical next steps.

The question of evaluating the impact of organized crime enforcement activity is a challenging piece of research to conduct, not least because of the "definitional morass" (Gabor 2003) that attends any such discussion as noted above, but also because of the multiple ways in which police agencies, ministry mandates, and legislative provisions address the question of organized crime across the developed world—and, not inconsequentially, because of the challenge of language.

Thomas Gabor (2003) conducted a review of the range of literature which may be considered explicitly or implicitly evaluative of state efforts to counter organized crime. As has been noted variously (e.g. Sherman et al. 1997; Brass et al. 2006; Campbell et al. 2007), only a minority of evaluations of public policy in the area of law enforcement are—for reasons relating to difficulties of data availability, or due in some cases to political efficacy, organizational culture, or lack of capacity—conducted with any great degree of rigour. Accordingly, Gabor found that methods of meta-analysis or systematic review using quantitative tools were unavailable to the extent they might be in other domains, as much of the material under review he found (unsurprisingly) to be "descriptive and anecdotal." However, this limitation notwithstanding, his work provides a very useful (and to date unique) reference point for any discussion of enforcement efficacy.

Gabor adopts a general definition of organized crime "control strategies," examining any evaluation of a strategy in which "direct and explicit connections [were] made between the control measure and the impact on criminal organizations" (5–6). The strategies reviewed included modes of enforcement organization, enforcement targeting choices, investigative techniques, court-centered procedures, police information and intelligence processes, legislative and regulatory change, and public hearings and oversight. Partly as a consequence, only a small subset of the evaluations addressed by Gabor examine the broad outcomes of policy; most focus instead on the more immediate impacts on the specific targets identified. For practical purposes 'strategy' is thus narrowly defined in most instances.

The review's findings are fairly stark: of 18 separate strategies considered, Gabor concludes that only three had accrued a significant body of associated evaluative research since 1980. Of these three (measures to combat money laundering, witness protection, and supply reduction) only evaluations of "witness protection" programs offered evidence of genuine effectiveness. In contrast, "control of money laundering" and "supply reduction" approaches were deemed to be of low effectiveness (56–57). All other control strategies exhibited insufficient grounds for judgement as regards available, well-conducted research. Given the difficulty of extrapolating from a witness protection program's proximate outcomes (higher conviction rate, reduced witness tampering) to overall fluctuations in crime types

associated with organized crime, it is reasonable to conclude from Gabor's work that evidence of effectiveness of existing organized crime control strategies is scarce to the point of near-absence. This is most certainly true outside the United States, the jurisdiction in which most of the reviewed material originated. In essence, "what works" regarding organized crime is largely unknown. As one might expect from a policy area without easy access to outcome variables, where evidence exists it is as least as likely to demonstrate that policies are ineffective as it is that they are effective (admittedly, from an n of three).

In the relative absence of academic evaluation of anti-organized crime measures, another means of understanding the state of knowledge regarding policy efficacy is consideration of examples provided in other jurisdictions, by means of an examination of government-authored documents addressing law enforcement performance. In classifying these, it may be suggested that there are effectively three types of knowledge in terms of the efficacy of public policy—in this case, anti-organized crime strategies. They may be termed anecdotal knowledge, process knowledge, and outcome knowledge.

- Anecdotal knowledge is the possession only of facts bearing face relevance to the policy and its stated goals, without any appreciable degree of context available for those facts. For example, we are trying to prevent the importation of heroin into the country, and today we have seized 3 kg of heroin. While it is undeniable that seizing heroin would be part of an effective strategy, ignorance of the size of the market, of comparative analysis of the relative size of the seizure (superlatives being quickly applied), and of whether or not the success in question was worthwhile in proportionate terms would make this "knowledge" effectively meaningless. It would not be inaccurate to describe most public announcements by police agencies globally regarding drug seizures in the last 40 years as falling into this category.
- Process knowledge is the possession of facts regarding the application of a policy where the various metrics of a process—in our case, the control of criminal organizations—are well established and available in a comparative context. Consciously or subconsciously, this approach appeals to government agencies as it involves counting what *we* are doing as opposed to what *they* are doing. It would be reasonable to argue that the Canadian law enforcement community has developed a relatively high standard of comprehensive process knowledge regarding its own anti-organized crime strategies, higher certainly than some other jurisdictions where comparatively greater bureaucratic rivalry may have stymied efforts at intelligence sharing.
- Outcome knowledge is the possession of facts regarding the intended consequences of a policy, where a relationship can be established in a rigorous manner between the policy goal, the accompanying process and the available outcome indicators. This is the most elusive of the three categories by far, and is not normally within the reach of an observer who is unwilling or unable to apply or consume the conclusions evaluation schemes and multivariate causal analysis (which need not be overly technical provided the evaluative research is well designed). However, in its absence, there can be no assurance that resources (and careers) spent on the control of organized crime, or on any other policy, are being well spent.

To identify methodologies in place regarding the performance of anti-organized crime strategies, the most recent available public documents on organized crime policing in a number of advanced democratic states (typically, in the form of annual performance reports) were reviewed and analysed by the author for explicit or implicit judgements of performance, and for the evidence provided in support of those judgements. In the case of the United States, whose enforcement establishment is possibly more differentiated than most, reports from a series of agencies were reviewed. In all, documents accounting for anti-organized crime activity and policy in seven sovereign states (the US, UK, France, Germany, Italy, Australia, and New Zealand) and issued by 14 separate bureaucracies were analyzed.⁷

The limits of this analysis are obvious in terms of the comprehensiveness of the comparison group, the variable nature of the report designs, and the reliance on public data. In effect, this is a somewhat unrepresentative sample, a failing the paper has typically assigned to others above. A more thorough analysis would involve, ideally, direct contact with senior bureaucrats in a range of jurisdictions, identifying additional competent bureaucracies, and this is to be recommended. However, two points may be offered in mitigation—first, it seems very likely that if there is an improved methodology available, it would exist in at least one of these organizations as opposed to exclusively elsewhere. Secondly, if such a method demonstrated anything approximating success in a rigorous manner, this finding would most certainly survive the editing stage on its way to public (and political) consumption.

Table 1 indicates summary results of the analysis. For a deep understanding of the approaches taken in each country and within each bureaucracy, a lengthy narrative comparison combined with expert interviews would be desirable, and should probably be undertaken as part of any serious and more extensive policy review. For the moment, key initial observations we may make are as follows:

- External criteria and explicit public evaluation of performance is rare and essentially unknown outside the UK.⁸ Most performance judgements are made by agencies themselves using self-selected criteria.
- The typical means of assessing performance, whether offered explicitly or simply implicit within the available documentation, is normally process-focused.
- Better examples of process-based assessments of performance include time-series context and acknowledgement of inherent knowledge limitations. Less satisfactory examples offer system-wide data, but with little contextualization.
- Some agencies still provide primarily anecdotal data in support of assertions of positive impact.
- Outcome measures, particularly in terms of "harm" trends, are rarely offered in support of performance assessment, although several agencies acknowledge that

⁷ Twelve of these agencies have either comprehensive responsibility for countering organized crime, or responsibility for a substantial portion of that mandate (e.g. cross-border trafficking or money laundering). The two FIUs, while tasked with tracking financial information in support of enforcement, have access in principle to a broad range of financial data within their own national banking systems which may be married with police information.

⁸ One possible exception to this comment would be the ad hoc reports on policing offered occasionally by the US GAO, Canadian Auditor-General, and similar bodies. However, none of these approximate an ongoing performance-based accountability framework for organized crime enforcement, being more likely to call for such a framework instead.

Table 1 Assessments o	Table 1 Assessments of performance/progress versus organized crime, selected agencies	crime, selected agencies		
Agency (country)	Document	Selected representative judgement(s) on the strategic efficacy of agency approaches	Evidence offered in support	Knowledge type underlying policy judgements
Various enforcement agencies (Justice and Treasury) (US)	National Money Laundering Threat Assessment 2007 (United States Department of Justice 2007b)	"There are ample indications U.S. regulations and law enforcement are having an impact. As it becomes more difficult to move illicit funds using a particular money laundering method, there is a clear migration to other channels."	Statistical tables indicating various time-series comparisons with respect to reporting, charges, seizures, forfeitures	Process
Federal Bureau of Investigation (US)	Strategic Plan 2004–2009 (United States Federal Bureau of Investigation 2004)	"Although success has been evident against LCN and the Sicilian mafia, challenges lie ahead in dealing with Russian, former Soviet Union, and Asian criminal enterprises." "The FBI will continue its successful efforts in the white collar crime arena."	Trend charts indicating criminal organizations Process dismantled and disrupted in previous 5-year reporting timetable Trend charts indicating decline in white collar prosecutions; narrative commentary indicates focus shifting away from fraud investigations towards terrorism	Process
Drug Enforcement Administration (US)	Drug Enforcement Administration Highlights Year's Accomplishments (press release, Dec 2005) (United States Drug Enforcement Administration 2005)	"The range of DEA's accomplishments indicates that while the current drug situation certainly remains difficult and complex, the DEA has developed equally complex and highly effective strategies to combat even the most sophisticated traffickers."	Annual totals of various category of seizure; no time series comparisons provided Narrative discussion of specific successes by theme	Anecdotal and process

Drug Enforcement Administration/ National Drug Intelligence Center/ Dept. of Justice (US)	National Drug Threat Assessment 2007 (United States Department of Justice 2007a)	"Despite the fact that the highest recorded level of cocaine interdiction and seizure was recorded in 2005 there have been no sustained cocaine shortages or indications of stretched supplies in domestic drug markets." "Sharp decreases in domestic methamphetamine production since 2004 have been offset by increased production in Mexico." "Mexican DTO dominance over domestic drug trafficking is expanding."	National Survey on Drug Use and Health (NSDUH) Domestic clan lab seizure data vs. methamphetamine seizures at US-Mexico border Anecdotal	Anecdotal, process and outcome
Immigration and Customs Enforcement (US)	Fiscal Year 2006 Annual Report (United States Innnigration & Customs Enforcement 2006)	"ICE continues to make significant strides to Annual totals of various category of seizure; Anecdotal eliminate the public safety threat posed by no and transnational gang members." An and transnational gang members." Narrative discussion of specific successful cases	Annual totals of various category of seizure; no time series comparisons provided Narrative discussion of specific successful cases	Anecdotal and process
Financial Crimes Enforcement Network (US)	Annual Report Fiscal Year 2006 (United States Financial Crimes Enforcement Network 2006)	"FinCEN continued to support law enforcement, regulatory, and intelligence partners and foreign financial intelligence unitsIn addition, we proactively identified individuals and networks associated with suspicious financial activity and referred that information to appropriate law enforcement agencies."	Narrative anecdote and implementation/ compliance statistics regarding process- related improvements	Anecdotal and process

* Table 1 (continued)				
Agency (country)	Document	Selected representative judgement(s) on the strategic efficacy of agency approaches	Evidence offered in support	Knowledge type underlying policy judgements
Australian Federal Police	Annual Report 2005–2006 (Australian Federal Police 2006)	"The Drug Harm Index for 2005–06 was 65 million compared to \$692.2 million in the previous year. A reduction in the amount of heroin imported, changes to the drug market and a change in priorities within the AFP account for the reduction in seizures."	Drug Harm Index represents the dollar value of harm that would have ensued had the seized drugs reached the community. Annual totals of border/drug operations metrics; little time-series comparison	Process
New Zealand Police	Annual Report 2006 (New Zealand Police 2006)	"Significant indicators around gangs include visible increases in wealth and assets as well as a growth in violent offending." "There was a significant increase in the quantity of crystal methamphetamine seized."	Statistics regarding increase in methamphetamine seizures and increases in wiretap authorizations.	Process
Guardia di Finanza (Italy)	Annual Report 2006 (Guardia di Finanzia 2006)	"The level of attention of the [Guardia] towards such type of crime is constantly maintained on high levels Nevertheless, there are signs that cannot be ignored indicating [increases in contraband trafficking]"	Limited 2005 vs 2006 data re border seizures Process	Process
Direction Centrale de la Police Judiciaire (France)	DCPJ descriptive web page, site of Interior Ministry (Direction Centrale de la Police Judiciana 2007)	Nearly all material dedicated to descriptions of organizational structure of policing, claimed to provide an effective response: "Cette organisation structurée permet de répondre efficacement à l'interdépendance entre les différentes formes de criminalité."	Very limited listing of 2003 seizure/ process data, placed in little or no context.	Few policy judgements and little evidence

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Process and outcome	Process and outcome	rocess	Process
n/a (first year of operation) Process ar Performance of agency will be tied to specific outcome processes but there is explicit acknowledgement of the importance of outcome variables in assessing the performance of SOCA over time.	Performance targets tied to individual or Pr "basket" crime indicators; annual o victimisation and opinion data gathered through British Crime Survey	Metrics comparing cases and suspects related Process to organized crime 2004 vs. 2003. Several methodological notes to the effect that data is driven by police operations.	No significant year on year differences in Pretrons of case referrals Improvement in rate of follow-up by prosecution
"Good progress has been made, but it is too soon to expect systematic evidence of impact on the criminal problems we have been tasked to achieve."	Tackling serious and organized criminality = "excellent" (HMIC report) Monthly average organized criminal networks disrupted = "Performance improving but still below target" (Home Office Police Performance Assessment Framework) Percentage of people believing organized crime is a problem (down from 5% to 4%) Perceptions of local drug use/dealing (up from 31% to 34%) Perceptions of local drug use/dealing (up from 31% from baseline (previous year up down 6% from baseline (previous year up 4%)	"The OC identified by our police has largely remained the same over the last few years police show the adequate amount of flexibility to effectively counter organized crime."	Contributed to operational success in an unstated number of investigations Agency is improving referral take-up, compliance rates and information sharing
Annual Report 2006-07 (Serious & Organised Crime Agency 2007b)	Policing London (Strategic Plan 2007–2010) (Metropolitan Police Service 2007)	2004 Organized Crime Situation Report—Summary (Bundeskriminalamt 2004)	Annual Report 2005 (FIU Germany 2005)
Serious & Organised Crime Agency (UK)	Metropolitan Police Service (London, UK)	Bundeskriminalamt (Germany)	FIU Germany

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better linkage between organized crime enforcement and such measures is desirable and necessary.

- Where good quality outcome measures are available, it is in circumstances where substantial investment has been made in data collection (e.g. drug use survey data, victimisation data).
- In some cases, data offered in support of narrative claims is either irrelevant or contradictory; in a related manner, statistical data suggestive of policy failure either receives no comment or is taken as evidence of additional resources requirements or redoubled efforts.

Clearly, if Canadian law enforcement is looking for a "gold standard" with which to measure organized crime policing performance, it is not available off the shelf from an external source at present, at least in finished form. However, it is apparent from much of this documentation that while outcome measures are not readily available in all circumstances, there is increasing recognition that the connection between traditional means of enforcement and its presumed outcomes needs to be demonstrated to be continued, and that process knowledge is not sufficient. The UK Serious and Organised Crime Agency annual report for 2006-07 notes that "law enforcement has tended to be judged on easily quantifiable measures, such as the number of groups disrupted or the amount of illegal commodity seized. These may be simple to measure but very hard to connect with outcomes that demonstrably matter to communities or impact longer term on the organised crime threats that harm the UK." Likewise, the authors of the 2007 US National Money Laundering Strategy suggest that while "traditional measures....do offer useful information and are indicators of the progress the United States is making against money laundering.... [t]he United States must work toward more effectively identifying and connecting criminal activity, illicit cash, money laundering methods, cases, and outcomes" (13).

It is clear, as well, that such a measurement standard is elusive and is probably not "resource-neutral." The statistics typically adduced in support of accounting for organized crime enforcement efforts are those gathered by the justice system in those areas where they have gained some traction: charges, prosecutions, sentences, seizures and forfeitures, and (less persuasively) disruption and dismantlement assessments. It is probably impossible to gauge the on-going impact of organized crime without detailed, reliable victimisation data, drug use data (including both selfreport and health care utilization measures), and a much fuller integration of law enforcement data with other data sources.

The challenge of developing useful impact indicators

When policing seeks to disrupt and incapacitate criminal organizations and their membership, this is not the end product we desire but merely a strategic choice on the way to our goal. What we profess to do when we target criminal organizations is to lower the incidence of violence, illness and misery associated with illicit markets, as regards the individuals involved but also the families and communities of those individuals. We presume, too, that tackling criminal organizations will have Despringer

measurable impacts in terms of thefts, health care usage, assaults, homicides, cases of corruption, and other direct consequences of organized crime. Examples of this basic axiom are available on the webpage of any policing organization in Canada. We do not, however, provide much evidence of this linkage, nor is the policing establishment asked to do so—yet. Of concern is that likelihood that were such a question to be posed tomorrow, providing an answer in an acceptable period of time would be very challenging given the current state of knowledge.

It is broadly accepted that some aspects of organized crime's impact are hard to measure—for example, the impact of undetected fraud, or the behavioural ripples associated to intimidation and extortion. But many others are more tangible, such as gang violence, much property crime, or health and social problems related directly (or, where well-researched, indirectly) to illicit drugs. To date, however, these factors are more likely to be identified sporadically, whether in media or policy circles, as markers of crisis or decay as opposed to a means of assessing progress.

How might we normalize the linkage of resource allocation and outcome in the area of organized crime enforcement? Whether within policing or in policy more broadly, this would require proponents and clients of significant strategic choices to agree on a recognizable standard for success which is based on outcomes as opposed to processes. In turn, proportionate resources and skills would need to be dedicated to the identification and measurement of progress towards that standard.

No matter how necessary this requirement is, or how easily said, it will take some doing in practice. If true success against organized crime is measured best in terms of societal harms, it is also true that many other factors (e.g. demographics, economics, or migration) which are beyond the control of the police and their partners have influence over those outcomes. As observers in the UK have argued, by tying specific performance evaluations to outcome variables too closely we run the risk of creating invalid or unfair measures (SOCA 2007a). But this should not discourage us from using these tools with appropriate caution. It should be remembered that we have arrived at the current situation largely without any rigorous attention to "bottom line" outcomes at all; even if community crime or health indicators are insufficiently specific for our taste, they are better than the alternative.

One promising model along these lines developed in the Australian policy environment, albeit still at the stage of a recommended approach, is the framework for drug law enforcement performance measurement elaborated recently by Peter Homel and Katie Willis (2007). The approach suggests that performance indicators regarding drug enforcement be measured along four axes of outcome:

- Reductions in drug crime and drug-related crime
- · Changes in average drug seizures and characteristics of OC participants
- Improved public health
- Improved public amenity (i.e. perception and confidence)

While not all data proposed as proxy measures is readily gathered in Canada in a comparable manner—and while some of the data may rely too greatly on unreliable judgements or statistically insignificant fluctuations—the efforts Homel and Willis have made in aggregating a broad range of countable indicators provide a basis for optimism as to the viability of an improved accountability model, and probably represents the best starting point in terms of existing propositions.

Some other observations are relevant here. First, it should not be assumed that all the relevant data regarding organized crime is held now, or will be held in the future, in the public safety environment. Traditional measures of convictions, seizures or arrests are necessary but not sufficient for an understanding of enforcement impact, lacking context. They are themselves unable to indicate much more than the ways in which criminal justice resources are alerted, deployed, and how efficiently or inefficiently they function. Many, or perhaps most, of the relevant indicators regarding the success or failure of policing initiatives are instead held by health, education, or civic organizations, or other agencies and researchers. However, these data currently are often (indeed usually) not collected and analysed from a public safety perspective. A significant reconstitution of the research relationship and overall policy collaboration between justice and health agencies and researchers is overdue, and the value from this improved relationship should run in both directions. This is likely a necessary condition of successful public safety policy at all levels.

Second, within policing artificial distinctions have been allowed to develop between "federal," and thus presumably high-level, information and intelligence regarding organized crime, and municipal, street-level or otherwise community-based indicators of criminality. Thus it is possible today in Canada to hear police executives speak any day of the week of the impact of drug addiction upon "break and enter" patterns, and yet look in vain for much federal enforcement documentation which uses property crime as a measurable outcome of organized crime policing strategies—and it is also possible to hear discussions at senior bureaucratic levels regarding a national organized crime strategy, in the absence of a national crime strategy. The mental distance which has been created in the public, political and policing mind between organized crime and "low-level" crime does a disservice to those addressing the purpose and product of organized crime enforcement.

Gabor's (2003:16) caution regarding the difficulty of approaches such as that proposed more recently by Homel and Willis is based on the difficulty of operationalizing the range of outcome variables necessary to create such an index. It is clear this challenge should not be understated, particularly if one is reliant exclusively on data from police systems or justice processes. Some data, in particular victimisation data, is in most jurisdictions not collected with sufficient detail or frequency. While this requires committed resolution, we may allow ourselves greater optimism if such an approach were paired with research partnerships across not simply the agencies of the criminal justice system, but also including health and human services data collected and analysed in a collaborative manner. In any event, the need for caution noted we can do little else besides focus on measuring indicators of negative outcomes we are seeking to prevent, despite how challenging this may be. No amount of focus on tangible, available process indicators allows us to understand our true dependent variables unless we measure them directly.

The good news is that some of the groundwork for an approach such as this is being done already. "Crime reduction" approaches and a focus on chronic or prolific offending, based on prior experience in the United Kingdom, have led a number of Canadian police forces to channel additional resources towards an improved knowledge base and analytical capacity, through multi-agency partnerships, with respect to street crime, property crime, and the intersection between substance abuse and offending. As importantly, public policy discourse in Canada has gravitated in ⁽²⁾/₍₂₎ Springer

this decade towards multi-agency models of responsibility with respect to public safety. Primarily, these approaches have taken root at the level of individual offenders as opposed to the more general challenge of organized crime. Broadening evidence-based policing from the municipal level to a similar approach at higher levels of abstraction is the obvious next step, though it should not be assumed the implementation will be straightforward.

As noted above, there are a number of extant data sources with substantial relevance to the policing of organized crime, especially within the health and human services sectors (to be clear, this is said with reference to understanding patterns, as opposed to data on individuals protected under privacy legislation). Substantial effort needs to be made to build this information into our general understanding of organized crime, and of how well our policies are faring with respect to community, family and individual outcomes.

Conclusion: towards an improved measurement and accountability model

Although an exact figure is impossible to establish because of the debatable boundaries of what may be considered "enforcement," substantial resources are devoted annually in Canada to control and combat organized crime, by federal but also by provincial, territorial and municipal governments—an estimate of \$500 million is heard not infrequently. Do we have a mechanism to know if this investment is having a measurable impact on the incidence of organized crime and its most obvious effects?

For the moment, the answer is "not really," although this is not for lack of effort. As noted above, Canadian police agencies at all levels have made good faith and praiseworthy efforts in the past decade to expand and improve their intelligence programs, build knowledge about existing criminal organizations, and make this information broadly available—and to conduct operations on a collaborative and intelligence-led basis. We have better-than-acceptable measures regarding the catalogue of known criminal organizations, and few if any international examples exist to put these efforts in the shade. However, our efforts tell us much about our known target base without getting us very far towards knowing if our efforts matter much to the communities we police in tangible terms. This is a common problem across the jurisdictions viewed here in comparative terms. As the authors of the German Bundeskriminalamt's *2004 Organized Crime Situation Report* note, "OC situation reports reflect the situation of the suppression of OC rather than actual developments in OC" (Bundeskriminalamt 2004:7).

What can we do to improve this situation in the near and longer terms? In sketching a transition to an improved accountability model for the policing of organized crime in Canada, several changes of approach may be recommended.

 Operationalize, and standardize nationally, multidisciplinary outcome measures for the policing of organized crime—and link evaluation of anti-organized crime strategies to those measures.

To call for a multi-disciplinary approach to the measurement of harms associated to organized crime is not to be unique or original. Michael Maltz (1975, 1990)

identified five categories of harm—physical, economic, psychological, community, and societal—plausibly associated to organized crime, which might be measured as an evaluation of enforcement impact. As Gabor notes, however, measuring harm as Maltz urges "is no simple task." It must necessarily be multi-disciplinary, rigorous, and drawn from good quality data. Although the public safety community will inevitably be the primary driver of such an approach, harm measurement in all likelihood requires the adoption of higher standards of methodological awareness and transparent measurement (including the development of resources and capacity in this area) than those to which that community has typically been accustomed. Adoption of higher methodological standards might be seen as both a driver and a consequence of closer relationships with other disciplines.

However, another significant gap is the lack of regular, comprehensive and detailed victimisation data to set against police occurrence, health and other datasets. In this, the Canadian situation compares unfavourably with that in the UK, where the British Crime Survey provides data of sufficient quality and granularity as to allow for a much greater range of questions to be asked, and answered. The lack of such an instrument is perhaps the greatest single impediment to an appropriate accountability model regarding organized crime enforcement. Current attempts to bridge this gap through focus groups, sporadically applied high level surveys, and other low-cost measures are insufficient as a basis for policy at current levels of expenditure.

 Develop a capacity, within policing or more generally within the public safety apparatus, to measure and evaluate policing performance, including but not limited to organized crime policing, according to robust external methodological standards.

Put simply, this capacity does not currently exist in a more than rudimentary capacity at any level of Canadian policing beyond a few skilled individuals who are limited by data availability as suggested above. As a consequence, neither the police agencies themselves, nor in truth the primary clients of those agencies, are in a position to account in a methodologically sound manner for public expenditure on organized crime policing. In too many cases, it is not simply that the right questions cannot be answered; it is that they cannot be asked.

• Continue to build and refine process evaluation and threat assessment methodologies where feasible, but with an acknowledgement of limits.

None of the foregoing should be taken as suggesting that current efforts to catalogue, analyze and compare known criminal organizations should cease. As noted above, the development in Canada of SLEIPNIR and associated intelligence and enforcement management practices represent a generational shift which is arguably one of the major achievements in policing of the last decade.

However, progress with respect to the known list of criminal organizations is not the same as progress with respect to organized crime, and where this is not made explicit it should be so. No amount of tinkering with the method will change this—it will remain a measure of the known, not the whole. But it should be possible by expanding the data consulted, and deepening our knowledge of the impact of justice processes on criminal organizations, to develop even richer understanding of the capacity of a criminal organization, its growth, disruption, decline or decay, and the merits of different enforcement approaches. All of these factors will remain valuable Development as measures of how well policing dollars are being spent in terms of individual cases, as well as in terms of the operational choices made. What is required is vigilance to ensure that these process-based successes do not become a proxy for success of the project as a whole.

As noted above, the direction indicated in this paper could and should be substantiated by a more comprehensive review of existing international approaches. If the conclusions upon that review are similar, significant changes in the way we measure and account for the anti-organized crime project in Canada are called for. Some of the recommended changes are philosophical or organizational in nature, but others would certainly cost additional resources, particularly as regards the data required to make coherent judgements. These costs are most certainly proportionate and appropriate to the substantial cost of the enforcement activity currently underway. In the meantime, it will be possible to continue for a while in the current knowledge environment with the intuitive sense that policing is making a difference. Intuition is probably insufficient over the longer run.

References

Adamoli S, Di Nicola A, Savona WU, Zoffi P (1998) Organised crime around the world. HEUNI, Helsinki Australian Federal Police (2006) Annual report 2005–2006. Canberra, ACT

- Beare ME (2003a) Purposeful misconceptions: organized crime and the state. In: Viano EC et al (ed) Transnational organized crime: myth, power and profit. Carolina Academic Press, Durham NC
- Beare ME (ed.) (2003b) Critical reflections on transnational organized crime, money laundering, and corruption. Toronto, University of Toronto Press.

Bell D (1962) The end of ideology. Free Press, New York

- Brass CT, Nunez-Neto B, Williams ED (2006) Congress and Program Evaluation: An Overview of Randomised Controlled Trials (RCTs) and Related Issues. Congressional Research Services, Library of Congress, Washington DC
- Bundeskriminalamt (2004) 2004 organized crime situation report-summary (English). Berlin.
- Campbell S, Benita S, Coates E, Davies P, Penn G (2007) Analysis for policy: evidence-based policy in practice. Government Social Research Unit, HM Treasury (UK), Whitehall
- Criminal Intelligence Service of British Columbia/Yukon Territory (2007) 2007 integrated strategic threat assessment (unprotected summary). CISBC/YT, Vancouver
- Criminal Intelligence Service of Canada (2006) 2006 CISC annual report on organized crime. Queen's Printer, Ottawa, ON
- Direction Centrale de la Police Judiciaire (2007) DCPJ homepage (www.interieur.gouv.fr/sections/ a l interieur/la police nationale/organisation/dcpj) accessed 2007-08-01

Dishman C (2001) Terrorism, crime, and transformation. Studies in Conflict and Terrorism, vol. 24.

- Finckenauer JO (2005) Problems of definition: what is organized crime? Trends in organized crime. 8(3), Spring.
- FIU Germany (2005) Annual report 2005 (English). Berlin.
- Gabor T (2003) Assessing the effectiveness of organized crime control strategies: a review of the literature. Department of Justice Canada, Ottawa, ON
- Guardia di Finanza (2006). Annual report 2006 (English). Rome
- Hagan, FE (2006) "Organized Crime" and "organized crime": indeterminate problems of definition. Trends in organized crime. 9(4), Summer
- Homel P, Willis K (2007) A framework for measuring the performance of drug law enforcement. Canberra: Australian Institute of Criminology Trends & Issues series No. 332
- Kerry J (1997) The new war: the web of crime that threatens America's security. Simon and Schuster, New York
- Maltz MD (1975) Measures of Effectiveness for Crime Reduction Programs. Operations Research 23 (3):452–474 (May–Jun)

Maltz MD (1990) Measuring the Effectiveness of Organized Crime Control Efforts. University of Chicago Press, Chicago

Metropolitan Police Service (2007) Policing London: strategic plan 2007-2010. London.

- Naylor RT (2002) Wages of crime: black markets, illegal finance, and the underworld economy. McGill Queen's University Press, Montreal
- Neal P (2007) Measuring organized crime. Unpublished paper. University College of the Fraser Valley, Abbotsford, BC
- New Zealand Police (2006). Annual report 2006. Wellington.
- Reuter P (1983) Disorganized crime: the economics of the visible hand. MIT press, Cambridge MA
- Royal Canadian Mounted Police (2000) SLEIPNIR: the long matrix on organized crime. Ottawa, ON.
- Sanderson TM (2004) Transnational terror and organized crime: blurring the lines. SAIS Review vol. XXIV no. 1, Winter-Spring
- Serious & Organised Crime Agency (2007a) Annual plan 2007-08. Home Office, London
- Serious & Organised Crime Agency (2007b) Annual report 2006-07. Home Office, London
- Shelley, LI (1995) Transnational organized crime: an imminent threat to the nation-state? Journal of International Affairs 48:2 (Winter)
- Sheptycki J (2003) Against transnational organized crime. In: Beare ME (ed) Critical reflections on transnational organized crime, money laundering and corruption. University of Toronto Press, Toronto
- Sherman, LW, Gottfredson D, MacKenzie D, Eck J, Reuter P, Bushway S (1997) Preventing Crime: What Works, What Doesn't, What's Promising. Report to the United States Congress prepared for the National Institute of Justice
- Sterling C (1994) Thieves world. Simon and Schuster, New York
- United States Department of Justice (2007a) National drug threat assessment 2007. Washington, DC
- United States Department of Justice (2007b) National money laundering threat assessment 2007. Washington, DC.
- United States Drug Enforcement Administration (2005) Drug Enforcement Administration highlights year's accomplishments. Press release, Dec 28 2005
- United States Federal Bureau of Investigation (2004) Strategic plan 2004-2009. Washington, DC
- United States Financial Crimes Enforcement Network (2006) Annual report fiscal year 2006. Washington, DC
- United States Immigration and Customs Enforcement (2006) Fiscal year 2006 annual report. Washington, DC
- Williams P (1995) Transnational criminal organizations: strategic alliances. The Washington Quarterly 18:1 (Winter)