Preventing and intervening in white-collar crimes

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Chapter 16 Preventing and Intervening in White-Collar Crimes: The Role of Law Enforcement

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Abstract: This chapter analyzes the role of law enforcement authorities in preventing and intervening in white-collar and corporate crimes. We start by considering white-collar crime in the 21st Century, thinking about what we know and what we need to know about such cases to inform prevention and intervention. We then raise some key analytical and practical questions in relation to 1) who or what should be the focus of prevention, 2) who has ownership of prevention measures, and 3) how we measure and evaluate the impacts of prevention. Our chapter is subsequently organized around these three key issues. We then consider types and sources of data that can inform prevention approaches towards white-collar crimes before concluding with discussion of the difficulties in analyzing the success of prevention strategies and reviewing what data is needed to inform evidence-based policymaking in this field.

[word count: 7815]

<A> Introduction

Imagine that you are employed at the Securities and Exchange Commission (or equivalent) in your country and are assigned with the task to design a prevention strategy to prevent frauds like Madoff's Ponzi scheme in the future. Where would you start? What information do you require? Which other authorities would you contact (and possibly collaborate with)? Who or what will be the focus of your prevention strategy? Which strategy would you suggest as effective and why? And how will you measure effectiveness in the future? These questions have puzzled law enforcement authorities tasked with preventing and intervening in white-collar and corporate crimes for many years. While this chapter will not provide definitive answers to these questions, it has two primary objectives: to consider the role of law enforcement authorities in the intervention and prevention of white-collar crimes, and to consider more effective ways of intervening with and preventing white-collar crimes.

In general, the formal state response to white-collar crimes has been dominated by attempts to regulate, persuade or otherwise negotiate compliance with the law—particularly in the case of 'elite' white-collar offenders—rather than pursue full-blown criminal law enforcement and prosecution. This is (particularly in cases involving corporate offenders) often on pragmatic and practical grounds (e.g. evidential difficulties, complexity of cases, legal arbitrage), but is also justified on more ideologically or normatively driven grounds (e.g. protection of national economic interests, preferences to negotiate with offenders like 'us'). Deciding whether to use persuasive versus

punitive strategies, of course, also raises tensions between ensuring equal treatment and punishment for all, and pursuing what is (or might be) effective in the response to white-collar crimes (e.g. administrative justice may be sufficient, but perhaps less symbolic than criminal justice). In any case, little attention is given to the role of public law enforcement agency interventions as a means and goal of preventing white-collar crimes; more often the focus is on the preventive actions of private sector institutions or civil society organizations.

While we recognize that white-collar crime prevention and intervention requires commitment from actors beyond law enforcement, in this chapter we specifically explore the possibilities for law enforcement authorities to be central to white-collar crime prevention and intervention strategies. Prevention implies stopping potential crimes and harms before they occur. Intervention implies stopping crimes and thus reducing harms once they have occurred or as they are occurring. The approaches and strategies discussed in this chapter, and the related data issues that we present, are relevant for both prevention and intervention. Thus, we use the terms interchangeably given the relevance of our arguments to both, but specify where this is not the case.

The concept of white-collar crime is an accepted label (but—as discussed in Chapter 2 of this volume—also a problematic analytical construct given variations in definition) that refers to myriad law violations where we mostly see supposedly legitimate actors at the center, engaging in these violations in the context of otherwise legitimate organizational, institutional and market environments (see Levi and Lord 2017 for a recent overview of the concept). In these terms, it is especially difficult to determine the conceptual parameters of white-collar crime while we continue to know little (in terms of systematic, empirical insights) about how such crimes are carried out. This in turn makes it difficult to measure 'what works' (and under which circumstances) in white-collar crime prevention. This is made more challenging as theory and application of crime prevention strategies and models have largely been preoccupied with more 'ordinary' volume crimes[i]; in recent years we have seen practitioners, policymakers and applied academic research pursuing situational approaches to achieve fairly myopic operational 'successes'. There is an absence of clear and systematic evidence and data about effective prevention strategies to white-collar crimes, making it difficult to identify which approaches are of most use.

The above issues hinder the development and assessment of white-collar crime prevention, and the role of law enforcement within this. In this chapter we attempt to address some key questions about white-collar crime prevention. First, we revisit some key cases from across the globe that fall within the framework of 'white-collar crime' before posing some key questions relating to what we know, and what we need to know, about such cases to inform effective prevention and intervention strategies. Second, we consider the role of law enforcement authorities in tackling these questions and being key players in prevention. Third, we discuss the evaluation of white-collar crime prevention mechanism, what 'success' looks like and obstacles to identifying 'good practice'. We conclude by discussing the difficulties in analyzing the success of prevention strategies and considering what data is needed to inform evidence-based policymaking in this field.

<A> White-Collar Crimes in the 21st Century: what we know, what we need to know

We begin writing this chapter in the midst of several notable white-collar crime scandals involving otherwise legitimate global individual and corporate elites implicated in an array of criminal and unethical activities. We could, for instance, consider the US case involving Paul Manafort and Rick Gates, President Trump's former campaign chairman and his deputy who were accused of money

laundering, fraud and tax evasion that came to light during special counsel Robert Mueller's investigation into Russian interference in US politics. According to the indictment, illicit monies of over $75m flowed via numerous offshore shell companies and bank accounts. Or we might discuss corruption in Brazil (and beyond) where investigations implicated numerous business and political elites, including state oil company Petrobras (accepted bribes to award contracts at inflated prices to construction firms - see Chapter 23, this volume, for a case study of Petrobras), global construction conglomerate Odebrecht (admitted bribing public officials to win business contracts), former president Luiz Inacio Lula da Silva (sentenced to 12 years in prison for accepting favors from engineering firm OAS), current president Michel Temer (charged with accepting bribes from meatpacking firm JBS) and Temer's predecessor, Dilma Roussef (impeached for the illegal movement of public funds between government budgets). This case implies systemic, pervasive and well-organized corruption between state and private sector organizations and individuals. These are just two cases that fall under the umbrella concept of white-collar crime—these are offenses taking place in the course of occupational positions giving the actors legitimate access to the offending environment, spatial separation from victims, and non-violent financial gains, features common across many white-collar crimes (Benson and Simpson 2018). Criminological research informs us that criminals become aware of opportunities as they engage in their normal legitimate activities, finding 'targets' in familiar places, with opportunities most likely to be taken advantage of when they are closer to areas of familiarity (Brantingham and Brantingham 1991). This is important because white-collar crimes are 'parasitical' on legitimate business and organizational practices, enabling criminality to be conveniently concealed behind the daily, routine behaviors of the offenders' legitimate occupations (Benson and Simpson 2018). This makes both detection and proof to a criminal standard of certainty difficult for regulators and compliance actors, prosecutorial authorities, and for criminal courts. Hence, public law enforcement authorities are in need to search for ways to intervene in the organization and commission of these crimes early on and prevent them from taking place.

We cannot address prevention and intervention in relation to the diverse array of behaviors falling under the white-collar crime concept in a single chapter, as this also brings with it a diversity of responsible enforcement authorities. Similarly broadening our analysis here to include harmful but not criminal behaviors (e.g. tax avoidance) is not possible, nor is it desirable given enforcement actors themselves require definitive offenses and frameworks within which to pursue such white-collar offenders. However, while we know of such cases due to scandals emerging in the mainstream media, through investigative journalism, or through brief analysis in academic outputs, a more systematic and comprehensive account of such cases is required to realistically inform prevention and intervention. Of course, prevention requires systemic social change to alter the political-economic-societal conditions that shape white-collar and corporate crime opportunities; this implies social concern with the nature of criminality, underlying motivations and its facilitative conditions. But such social change can only be driven by governmental institutions, particularly in the case of governance in liberal democratic regimes. The often exigent nature and role of law enforcement means more immediate, myopic preventive strategies are needed and for such authorities to have a role in prevention, more practical modes of thinking and analysis are necessary – a focus on the specific crime event offers a more direct, and more plausible, route to prevention for those involved as law enforcers. Thus, while we recognize the need for greater societal change for social prevention, we also recognize the more immediate priorities of enforcement. This latter endeavor implies deconstructing the white-collar crime commission process, understanding their opportunity structures and the nature of networked collaboration within them in order to better understand critical points of vulnerability and intervention.

<A> Some key analytical and practical questions

In brief, the prevention of (and intervention in) crime refers to any action or technique by public agencies or private organizations/individuals that aims to reduce the damage caused by potential (and accomplished) acts defined as criminal by the state (Hughes 2003, 85). This in turn incorporates a broad set of policies that may not only seek to reduce rates of crime, but also improve the quality of community life and cohesion amongst the population (International Centre for the Prevention of Crime 2010, vii-x). However, there is comparatively little material of the prevention of white-collar crimes when compared to volume crimes or other forms of serious crime such as 'organized' crime. In their evidence-based critique of organized crime prevention, Levi and Maguire (2004) raise some fundamental questions that anyone venturing into crime prevention ought to consider. More specifically, these questions concern: 1) definitions of crime and aims of prevention strategies, 2) who has 'ownership' of the problem, and 3) how to determine and accurately measure the impact of interventions. In this chapter, we draw on this framing to consider the prevention of white-collar crimes and, as with Levi and Maguire, address the following three questions:

1. What or who should be targeted for white-collar crime prevention and intervention, and with what aims in mind?
2. Who has ownership of white-collar crime prevention and reduction?
3. How can the effects of interventions be evaluated?

We take each of these questions in order before thinking about the types and sources of data that need to be collected and analyzed for law enforcement to take a central role in prevention.

<A> Who or what should be targeted?

The debate about preventing what or who resonates in white-collar crime scholarship given the extended dialogue around offender and offense based conceptions of white-collar crime. That is, should we focus on the prevention of law violations by (networks of) actors of elite social status and respectability in the course of their occupation as envisaged by Sutherland (1983) or should we de-collar the white-collar criminal for a more inclusive focus on the nature of the offense and associated characteristics such as inherent deception (Edelhertz 1970; Shapiro 1990)? The latter conception inevitably broadens the scope to incorporate 'blue-collar' occupational violations, watering down the elite component of the actors involved and broadening the remit for authorities tasked with white-collar crime prevention (Simpson 2013, 312; Geis 2016, 35; Pontell 2016, 39). The construct of white-collar crime can also incorporate a range of crimes by those in the 'middle classes' (Weisburd et al. 1991), such as tax frauds committed by those who consider themselves, and are perceived by others, to be respectable, law-abiding citizens (Karstedt 2016).

Scholars of criminology, and academics more broadly, have good reasons to define white-collar crimes on the basis of who commits them (e.g. in order to draw attention to and curb crimes of the powerful). However, while these are important scholarly debates, law enforcement authorities can only pursue white-collar crimes that are defined as such under the law; such legal definitions focus on the characteristics of the offense, not the offender. Offender- and offense-based conceptions can, of course, be integrated if we analyze how individuals' elite status: provides access to particular crime opportunities; enables actors to possess the knowledge, techniques, networks, locations and skills for realizing these opportunities; and enables those actors to circumvent or deter suspicions of regulators (Levi and Lord 2017). In this chapter we focus on white-collar crimes whose opportunity structures are accessible by those of elite, rather than blue-collar, social status.

<B> Understanding opportunity structures

As with other forms of serious (and organized) crimes, the prevention of white-collar crimes by law enforcement needs to focus on both *harmful acts* as well as *harmful actors* (cf. Levi and Maguire 2004). For the purpose of targeted prevention, a focus on those *acts* considered more serious ought to be at the forefront of white-collar crime prevention. In other words, those frequent acts with severe outcomes and harms ought to be more of a priority than those that are frequent but less harmful and those that are less frequent and less harmful (for an analysis of the harms of crimes, see Greenfield and Paoli 2013). For instance, it is those higher-level white-collar crimes that are most harmful and also most difficult to prevent and intervene with. This is particularly the case when there is conspiracy, collusion, and/or collaboration, due to such offenses' complexity and their embeddedness within legitimate systems that allow them to 'hide in plain sight'. Corporate frauds, for instance, are regularly more harmful, more organized, and more systemic than individual occupational frauds, often involving cross-border dimensions.

In terms of the *actors*, white-collar crimes can involve individuals acting alone, networks of actors working together, or the unwitting involvement by offenders of third-party facilitators. These crimes may be for individual or organizational gain but a common feature is that they require some level of organization to realize an opportunity once it has been recognized. Thus, the starting point for informing prevention and intervention by law enforcement must be an understanding of opportunity, the nature of the 'problem', and how actors organize around this. This implies a shift towards focusing on the opportunity structures of white-collar crimes (Benson and Simpson 2018), the tools of which are mainly situational crime prevention, routine activities theory and crime pattern theory (Benson, Madensen, and Eck 2009). For white-collar crimes to occur, an *opportunity* must be present. This is self-evident, though an opportunity is a necessary but not sufficient condition. However, it is not the mere presence of an opportunity that is important but the particular characteristics of the opportunity; as Benson and Simpson (2018) demonstrate, all white-collar crimes have a specific *opportunity structure* (defined below) that differs between different types of crime.

Analytical focus on the structures of opportunities ought to be a fundamental part of explanatory accounts of white-collar crimes, and therefore of prevention, intervention and reduction. The *opportunity structure* refers to the set of conditions or elements that must be in place in order for the white-collar crime to take place. Different settings naturally create different opportunities that vary in accessibility and attractiveness to would-be-offenders. When intervening with the structures of white-collar crime opportunities, certain dimensions must be recognized. Specifically, the nature of these offenses is such that: 1) the offenders usually have 'specialized access' to victims and targets; 2) the offender, however, remains spatially distant from victims at the time of the offense; 3) deception or concealment enables offenders to hide the offense; and 4) criminal intent is often ambiguous as the acts may closely resemble routine, legitimate activities (see Benson and Madensen 2007, 613-4). Law enforcement authorities must incorporate these features of white-collar offending into the design of prevention strategies as—in contrast to 'ordinary' crimes—the nature of the target of offending is more esoteric, there is a lack of identifiable victims, and the concept of a physical offending location is less relevant (Huisman and van Erp 2013).

Consistent with the opportunity perspective, and to further inform prevention, we can seek to understand *how* the opportunities are realized in practice and how this is organized. Focusing on the 'organization' of white-collar crimes enables law enforcement to identify those relations, practices and networks that are central, or more contingent in influence, to accomplishing the enterprise (Edwards and Levi 2008; Lord and Levi 2017). In researching serious crimes, including white-collar crimes, we need to appreciate the interplay between the remote distal causes and conducive

conditions, situational opportunities and routine activities, and the networks of relationships (whether pre-existing or more ephemeral) that exist and enable offenders to cooperate and conspire (Edwards and Levi 2008, 363). For instance, a systematic, evidence-based account of the following factors ought to inform prevention and intervention (Levi 2009):

- how and why motivated offenders recognize and exploit such white-collar crime opportunities;
- how they generate and manage the finances for and from their activities;
- the types of skill sets, knowledge and expertise that they need (or need to recruit) to organize the white-collar crime, and;
- the generative conditions that facilitate why the crimes are organized as they are.

<B> Script analysis

One mode of thinking for operationalizing and developing systematic insight in this way is by deconstructing the nature of the crime commission process and the actors involved to gain a more comprehensive understanding of the processes involved in white-collar crimes. This has been termed 'script' analysis (Cornish 1994) and has been recognized as a successful approach to developing analytical and prevention-focused thinking to disrupt the behaviors of organized criminals (Levi and Maguire 2004, 429). The framework enables "a careful and comprehensive analysis of the nature of the problem to be addressed, including developing a clear understanding of the various crime scenes, actors and their resources" (Levi and Maguire 2004, 457).

In brief, script analysis provides

> a way of generating, organizing and systematizing knowledge about the *procedural aspects* and *procedural requirements* of crime commission. It has the potential to provide more appropriately crime-specific accounts of crime commission, and to extend this analysis to all the stages of the crime-commission sequence (Cornish 1994, 160 emphasis in original).

For Cornish (1994, 157), criminal behavior can be routinized, making it appear simplistic, but this routine can conceal key aspects of the organization, sequencing and acquisition of crimes. Scripts therefore provide a way of understanding the logistical steps (not necessarily linear or sequential, allowing for flexibility and actor innovation) that take place across different scenes. Within each 'scene', different permutations of the 'facets' that make up the different ways the behaviors can be accomplished can be found. Underpinning the script approach is an assumption of rational choice for understanding offending behaviors and decisions that can be prevented by intervening with the larger situations or environments within which they take place (Clarke and Cornish 1985). Thus, the logic behind the approach is that criminality is understood as rational, goal-oriented and purposive behavior and that by understanding the procedural aspects of these behaviors, suitable intervention mechanisms can be mapped onto their scripts. The script analysis approach has been persuasively applied to a range of criminal enterprises such as: drug manufacturing in clandestine laboratories (Chiu, Leclerc, and Townsley 2011), the online stolen data market (Hutchings and Holt 2015), human trafficking for sexual exploitation (Savona, Giommoni, and Mancuso 2013), infiltration by the Mafia of the public construction industry (Savona 2010), the switching of Vehicle Identification Numbers from wrecked to stolen vehicles (Tremblay, Talon, and Hurley 2001), illegal waste activity (Thompson and Chainey 2011; Sahramäki et al. 2017) and in conjunction with social network analysis in relation to stolen-vehicle exportation operations (Morselli and Roy 2008) and the distribution of counterfeit alcohols (Lord et al. 2017). The increasing use of this approach in relation to serious and complex crimes reflects the simple yet effective way through which the complete sequence of actions and

decisions across all stages of crime commission can be identified, thereby giving a fuller range of possible intervention points that has clear crime reduction and disruption potential for law enforcement and regulatory authorities.

<B> Applying theory in practice

How could this integrated script and opportunity structure analysis of high-level white-collar crimes be carried out in practice to inform enforcement responses? We provide two examples here drawing on empirical research into market manipulation and counterfeiting, both of which could be analyzed within the framework of white-collar crime.

Our first example is the Libor scandal (i.e. market manipulation) that permeated across Europe and the US, and provides insight into how finance capitalism (i.e. the dominance of financial institutions like banks, as opposed to private trade or manufacturing companies, in capitalist markets) generated opportunities for market manipulation that only particular 'elite' actors had access to due to their occupational expertise, leading to the generation of profit for banks (and individual benefits also). For law enforcement authorities to effectively intervene with or prevent such white-collar crimes, they first need to develop a comprehensive and systematic account of the nature of how the activities are organized over time and place. Jordanoska and Lord (forthcoming) undertook such an analysis when implementing a script analysis to understand the procedural dynamics and mechanics of the market manipulation process. They analyzed the range of interactions between the relevant actors, these actors' behaviors, and the resources essential to allowing the manipulative behaviors to occur. By analyzing the *how* of the Libor rigging, they were able to gain insight into the procedural aspects and organizational dynamics of the manipulations in different 'scenes' of the script, to identify which actors (individual and corporate) were central and how they cooperated across the script, and the ways in which regulatory and corporate conditions created opportunities and potential for the manipulations. Their analysis delineated the rigging into four essential scenes – 1) calculated positioning and identification of co-collaborators; 2) recruitment of collaborators; 3) (ephemeral) manipulation; and 4) recompense and solicitation – and made more evident the paradox in regulatory and organizational actors' becoming both 'capable guardians' as well as 'facilitators of misconduct'. Thus, a detailed analysis of the essential components of the Libor rigging was able to identify key points of routinized activities where oversight was lacking or problematic, highlighting these as key areas for prevention and intervention strategies. For instance, in some cases, the close physical proximity of traders and submitters enabled traders to regularly 'shout out' their preferred rates of submission, demonstrating the routine nature of the manipulation and frustrating social control efforts by regulators as such exchanges would thus be undocumented. Such open manipulations demonstrated the vulnerabilities evident within the organizational environment and the potential for altering these dynamics to remove the opportunity. Absent large-scale social and economic intervention, law enforcement authorities can then devise evidence-based measures for immediate reductions. For instance, drawing on the principles of situational crime prevention (see Clarke and Cornish 1983; Cornish and Clarke 2003), attempts can be made to increase the effort, increase the risks, reduce the rewards, reduce provocations and remove excuses in relation to highly specific white-collar crime types (Benson, Madensen and Eck 2009). For instance, with market manipulation, as in the Libor example above, had conflicts of interest within single organizations been removed by ensuring so-called 'Chinese Walls' were in place between those departments setting and trading on benchmarks then the efforts required to commit the fraud would have been increased. Similarly, ensuring clear internal policies were in place that clarified how the benchmark rates ought to be set would have removed excuses.

In our second example, Lord et al. (2017) and Bellotti et al. (2018) integrated a script analysis with a social network analysis to understand the distribution of counterfeit alcohols between two European jurisdictions where legitimate business actors were implicated, and where the movement of the illicit products was concealed within legitimate logistics networks (i.e. networks involved in the transportation of goods) and sold via legitimate wholesalers and supermarkets. The distribution was deconstructed into five scenes (collection, logistics, delivery, disposal, proceeds/finance) and the analysis identified underlying and routine activities connecting each scene at the intersections of licit and illicit markets and networks as they saw the 'integration', 'incorporation', 'de-integration' and 'allocation' of the illicit product at various stages and under particular conditions. The role of particular network actors in different scenes was identified, including where opportunities arose and the resources and skills they required to realize these opportunities. This knowledge informed the identification of key deception points and actors that had not been foregrounded by the enforcement authorities. The regulator was then able to re-organize live investigations based on the vulnerabilities identified in the research. For instance, the investigation had initially focused on the end-point in Country B where the counterfeit alcohols had been found and the distribution strategies prior to sale, but the analysis here made obvious the key role of a small number of logistics businesses in Country A that were regularly involved across multiple consignments or shipments. These logistics businesses were key players in the enterprise. Also, the analysis drew attention to the centrality of two business persons in particular who covered the costs for the legitimate, transnational haulage companies that were used to transport the products unknowingly; essentially 'following the money' to the benefactors.

Approaching the most harmful acts and harmful actors through an integrated theoretical analysis as above can assist law enforcement authorities in understanding how social/criminal networks are established and maintained for criminal enterprise within legitimate business structures, networks and situations. By organizing our thinking to consider white-collar crimes in terms of the "skill sets, contacts, start-up capital, and running costs that they require" (Levi 2009, 231), we can recognize how necessary it is to have convergence in space and time of a specific situation (e.g. a vulnerability in how interbank lending rates are established), a target (e.g. the ease at which offenders can manipulate this), and the absence of capable guardians (e.g. where they may paradoxically act as facilitators or be incapable). Thus, if law enforcement authorities consider how potential offenders organize their behaviors—including confronting problems of gaining finance, gaining access to crime opportunities, and retaining their freedom and crime proceeds (Levi 2009, 225)—they can intervene with, prevent, or reduce the potential for the crimes to take place.

<A> Who has ownership?

The focus in this chapter is on the role of law enforcement and to some extent the answer to who has ownership is these very law enforcement authorities. However, white-collar and corporate crimes are diverse, not only in the types of offenses, offenders, victims and harms that can be incorporated within the analytical construct, but also in terms of those law enforcement authorities that have responsibility for prevention and intervention and the regulatory strategies that they implement—which is much more varied than for 'ordinary' crimes. For instance, a look at the history of business regulation indicates that numerous specialist bodies outside of the police have been established to deal with varied behaviors such as tax noncompliance, financial services, health and safety, and so on (Braithwaite and Drahos 2000). Moreover, even within one type of behavior, there are often several different authorities responsible at the same time. For example, authorities on the local, regional, and national level might all claim jurisdiction, creating challenges for collaboration and coordination between these bodies. What is more, for these bodies "criminal prosecution is

overwhelmingly the road not taken" (Levi and Lord 2017), making prevention and intervention even more significant in response to white-collar crimes.

In practice an array of non-state actors, not just law enforcement or other public authorities, also have a fundamental role in white-collar crime prevention and reduction, and these are discussed in chapters 15 and 17. In addition, at the national level governmental departments have a direct involvement in strategy whilst the often cross-border nature of white-collar crimes implies cross-state, bi- and multi-lateral ownership of particular white-collar crime phenomena, including the role of policing authorities such as Europol and Interpol. Also at this cross-national level, regional and global intergovernmental authorities such as the EU, the OECD, the FATF, and the UN—as well as other official bodies such as the IMF and World Bank—have some level of ownership, particularly in cases of serious corruption or those white-collar crimes with connections to organized crime.

We focus here on the role of national level law enforcement authorities, as this is where responsibility for prevention predominantly lies. However, much variation exists given enforcement is culturally shaped, dependent on particular geo-historical configurations in each jurisdiction. To give an example of this diversity of law enforcement, if we consider economic and financial crimes that could be carried out by the 'white-collar offender' in a common law system as in the UK, we can see that there is an incredibly fragmented enforcement arrangement (see for example Doig and Levi 2013; Levi and Lord 2017). Nationally, the Serious Fraud Office (SFO) and the National Crime Agency (NCA) are responsible for serious and organized economic crimes, while the 45 individual police constabularies have economic crime divisions. Other special forces such as the Ministry of Defence Police also have authority to investigate relevant cases, such as corruption in defense contracts. Furthermore, there are regulators with criminal law powers such as the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA).

In civil law systems, we see a similar fragmented approach to the enforcement of white-collar and corporate crimes, although civil law systems tend to have more unified systems in which white-collar crimes are dealt with in the same ways as ordinary crimes (Levi and Lord 2017). In the Netherlands, for instance, the Fiscal Intelligence and Investigation Service is responsible for all fiscal fraud cases, including those considered to be white-collar frauds and 'ordinary' fraud cases. In addition, the Authority for the Financial Markets is responsible for supervising the operation of the financial markets which includes individual behavior affecting financial markets as well as corporate or organizational behavior. In general, regulation and enforcement are organized around particular issues, like (fiscal) fraud, occupational health and safety, and environment and pollution (van de Bunt and Huisman 2007). At the same time, the National Office for Serious fraud, environmental crime and asset confiscation (part of the Prosecution Service) is responsible for investigating and prosecuting criminal offenses and supervises criminal investigations by other authorities.

In federal systems, such as Germany and the US, there are State level as well as Federal level law enforcement authorities. For instance, in Germany individual *Bundesländer* (i.e. States) have law enforcement authorities (i.e. a *Landeskriminalamt* with support from local police forces) and public prosecutorial offices (i.e. *Staatsanwaltschaft*) that have responsibility for crime, including those we could categorize as white-collar and corporate crimes. At the national level, there are nationwide policing authorities (i.e. Bundeskriminalamt) and regulators (Federal Financial Supervisory Authority - BaFin) with interests in preventing and responding to white-collar crimes. We also see such enforcement diversity in the US where the FBI (including its Internet Crime Compliant Center), the New York Department of Financial Services, the Manhattan District Attorney's Office, and the Department of Justice (DoJ) are the principal criminal investigation and prosecution bodies dealing with white-collar crimes there. We can also include the Securities and Exchange Commission (SEC),

the US Secret Service (for counterfeiting and payment card fraud), and the Federal Trade Commission within this law enforcement arena.

The sheer diversity of enforcement responsibility makes it difficult to evaluate all potential approaches to preventing and intervening with white-collar crimes and to assess their relative benefits. For instance, how we go about reducing white-collar crimes is often ideologically driven, reflecting mixes of compliance/regulatory strategies (whereby authorities seek to ensure standards are secured and maintained by persuading, and cooperating with, those communities of actors to encourage law compliance) and deterrence strategies (whereby crime control is the objective through criminal law prosecution and punishment; Croall 2003). There is much overlap between the persuasion and deterrence models in practice, and strategies of compliance can have both preventive impacts before the crime occurs as well as represent different modes of intervening with occurring white-collar crimes. This, of course, assumes that potential or actual offenders are willing to comply or that they operate on an amoral basis. Where there is no will to comply or an absence of rational thinking, alternative measures need to be considered. Due to the diversity of white-collar crimes, it is difficult to conceptualize the prevention and intervention responses to specific white-collar offenses. In general terms, the issues of prosecution and sentencing are dealt with elsewhere in this handbook, but clearly can have preventive impacts at a specific and general level.

<A> How do we evaluate white-collar crime prevention and intervention by law enforcement?

The preventive effects of measures taken by law enforcement authorities to reduce white-collar crimes are largely unanalyzed. The evaluation of crime reduction impacts has largely been associated with more conventional, volume crimes, reflecting policing concerns with the 'usual suspects' and impacts that can be more readily evidenced. For instance, in their systematic review of the corporate crime deterrence literature, Schell-Busey et al. (2016) found few studies rigorous enough to inform evidence-based policymaking. Moreover, a search on the European Union's Crime Prevention Network (EUCPN) website for examples of good practice in crime prevention indicates there are no examples specifically attending to white-collar crime cases.[ii] The closest is five strategies related to economic and financial crimes (mainly corruption and frauds), but these programs relate to criminal enterprises rather than occupational actors, and there is no evaluation data on their impacts. Similarly, a search on the International Centre for the Prevention of Crime (ICPC) returns no hits for white-collar crime.[iii] In the US, two funding calls were placed in 2013[iv] and 2015[v] by the US Department of Justice (DOJ), the Office of Justice Programs (OJP) and the National Institute of Justice (NIJ) for social and behavioral science research and program evaluations that inform efforts to detect, investigate, prosecute, and otherwise combat and prevent white-collar crime and public corruption. However, there is no information provided about funded projects.

Part of the reason for the lack of prevention evaluation research on white-collar crimes may be the restrictive expectations placed on such analysis. For instance, the abovementioned funding calls in the US require that if the research is evaluative (i.e. aiming to determine effectiveness or impact of a particular intervention), then "the application is expected to propose the use of random selection and assignment of participants (or other appropriate units of analysis) to experimental and control conditions, if feasible" (NIJ 2015, 5). This is significant, particularly where research pursues offender-based definitions of white-collar crime, as gaining access to populations of elites for random and controlled research in this way is highly unlikely. Whilst the calls do stipulate that randomization is not essential, in such cases quasi-experimental designs to reduce selection bias are required. As we know from the discipline, the most rich white-collar crime studies have frequently been qualitative

(but still robust, rigorous, and systematic) in nature. The evaluation criteria used by the NIJ further exacerbate the bias for experiment and randomization, as proposals are scored higher when such statistical tests and dimensions are clearly incorporated. [vi] More usefully, the guidance also encourages the inclusion of cost-benefit analysis; such analysis should be central to the evaluation of prevention mechanisms, particularly when intended for use in policy and law enforcement operation.

It is clear that preventive measures need to have concrete specified desired outcomes beyond the direct, immediate operational outcomes of particular interventions. For instance, if the persistent bribery of public officials by a company to win contracts in the construction sector is taking place, then disruption by law enforcement through the introduction of more stringent measures, or by the prosecution of a key individual, may 'work' in the short-term but measures need to be taken to evaluate long-term prevention on the wider industry. Such longer-term impacts require precise measurement (perhaps via proxy indicators), but currently there are very few examples of the impacts of prevention measures on white-collar crimes. Specific planned outcomes may include more tangible impacts such as: reducing the number of product recalls, reducing the number of consumer complaints, increasing the number of firms that have implemented certain preventive measures, increasing public awareness of white-collar and corporate crimes, and/or improving public perception of a certain industry.

Although certain white-collar crimes are now major concerns for governments and on the agenda of law enforcement authorities, as seen through increased legislation globally (e.g. anti-bribery laws) and corresponding enforcement strategies (e.g. UK Anti-Corruption Plan 2014 and UK Anti-Corruption Strategy 2017-2022), there have been no formal evaluative research on the prevention impacts of such interventions. 'Successes' are generally defined as such based on prosecutions, confiscations of proceeds and size of financial penalties. This is part due to the absence of before-and-after evaluative data or comparison-based students and this makes it difficult to measure impact (Schell-Busey et al 2016).

<A> Types and Sources of Data

With the above in mind, in this section we suggest some types and sources of data that are needed to evaluate prevention measures by law enforcement authorities. These data can inform law enforcement strategies by informing the abovementioned script and opportunity analyses with the intention of locating critical points of vulnerability for intervention and prevention measures. Law enforcement agencies are under pressure to produce results (usually in the form of prosecutions) in order to ensure they maintain their existence and function. Shifts towards prevention and disruption reduce the number of measureable results and may also contradict statutory remits.

Much of our knowledge about white-collar and corporate crime and its enforcement derives from qualitative case studies, analysis of policy documents, and interviews with offenders and enforcement authorities or regulatory agency employees. Quantitative information about the number and frequency of violations and prevention measures is scarce and often problematic. For instance, official statistics mirror enforcement capacities and priorities, not necessarily its success (see van de Bunt and Huisman 2007; Gibbs and Simpson 2009; Walburg 2015; Benson, Kennedy, and Logan 2016; and Cliff and Wall-Parker 2017 for an overview of measurement problems). In addition, victimization surveys often have low response rates and have often been administered by consultancy and/or audit firms that have their own agenda and may not always distinguish between white-collar, corporate, organized, and occupational crime (Walburg 2015). To provide better insight into the rather secluded world of business firms and elite offenders and into the effectiveness of

prevention measures, criminologists could make use of various sources of information, such as self-report studies, offender interviews, systematic case file analysis, and perception studies (see Lord and Levi 2015). But in addition to these data sources, data collected on prevention and compliance measures taken by individual offenders and business firms could further provide insight into the impact of prevention strategies of law enforcement authorities. For example, one could think of data of corporate compliance departments, compliance assessments by third party experts, such as certification bodies, data from NGOs or international bodies such as the OECD, and data from business and sector-specific trade associations.

Of course, all these sources of information have strengths and weaknesses. Self-reports may be biased, as might be reports by NGOs or other bodies. Hence triangulation of these sources is required to better inform enforcement authorities (Walburg 2015, 35). Information from one source can then be compared, confronted, and completed by other sources. Moreover, to assess the value of the materials collected, longitudinal data is necessary about the prevention and compliance measures taken by white-collar and corporate offenders.

In any case, evaluating prevention strategies begins with determining indicators to measure success. Is successful prevention about reducing the number or frequency of violations, the number of complaints or reports by dissatisfied consumers? Or do we also wish to include indicators such as changing perceptions about right and wrong within organizations and about the seriousness and blameworthiness of white-collar and corporate crime in the general public? Debate about successful prevention and intervention should start with answering these questions.

<A> Concluding Thoughts

This chapter has sought to explore the role of law enforcement authorities in the preventing and intervening with white-collar crimes. Given the immediacy requirements of law enforcement, much can be gained by pursuing prevention mechanisms informed by an analysis of the scripts of white-collar crime, the associated social/criminal networks and the nature of opportunities. Script analyses enable the identification of points of vulnerability for white-collar crimes of commission (less for omissions) that can be adapted to reduce crimes in the shorter term. Clearly we recognize the need for longer-term social justice interventions, the need to change problematic systems (for non-offenders), and the need to incentivize pro-social behaviors. The sheer complexity of many white-collar crimes makes such strategies a necessity, but evaluating the impacts of intervention and prevention measures is difficult due to an absence of before and after data, the restrictive funding requirements of state agencies for independent research, and the hard-to-access samples of the white-collar crime offending population.

For instance, we have seen how the global financial system has provided an infrastructure for creating financial arrangements conducive to managing finances generated through illicit behaviors (such as corruption or tax avoidance) with anonymity, as illuminated in the Panama Papers and Paradise Papers. Our own research into the use of legal structures in cases of corporate financial crimes in this way indicated that these structures act as vehicles for managing illicit finances (Lord, van Wingerde, and Campbell 2018). For instance, by setting up and using legal structures such as Limited Companies, Trusts, Limited Partnerships, and Foundations, corporations are able to create an illusion of legitimacy for what are actually illicit transactions (e.g. bribes) and effectively gain anonymity for those instigating the crimes. Key to these cases is the involvement of third-party occupational actors (such as lawyers, notaries, accountants) working as Company Formation Agents (CFAs) or Trust and Company Service Providers (TCSPs) who can set-up and service these 'vehicles' on the behalf of those corporate and individual actors involved in the crimes. Cases such as these

raise important questions as to the extent to which law enforcement authorities can actually intervene with or prevent such financial arrangements, particularly as they are so well embedded in the legitimate financial system. Thus, intervening with particular conducive situations or with vulnerabilities inherent in the crime commission process is more plausible.

Looking ahead, the role of new and emerging technologies in white-collar crime prevention and intervention needs further consideration. For instance, financial technologies such as the so-called 'Blockchain' and other types of distributed ledger technology (DLT) offer opportunities for improving tracking of financial transactions whilst regulatory technologies can assist in the automation of regulatory compliance for business. For instance, such technologies require data to be verified across multiple locations and then added to an unchangeable 'chain' of data, making it more resilient to fraud as multiple actors would be required to validate the transaction and increasing the transparency of transactions. Law enforcement authorities will need to engage with such technological innovation to counter innovations in white-collar criminality.

Finally, this chapter has demonstrated the need for collecting more and better data on prevention and compliance measures and for making this data available for enforcement authorities and academic researchers. Only then, we will be able to gain more insight into prevention strategies and compliance over time and provide more definitive answers to the question how successful intervention strategies really are. Future research in this area may focus on identifying the necessary aspects of specific white-collar crimes in order to inform an understanding of where critical points of vulnerability exist in the 'scripts' of these crimes to ensure intervention can be evidence-based and targeted. Furthermore, understanding the conditions generative of opportunities for white-collar crimes at local and global levels and theorizing potential future scenarios within which certain white-collar crimes may increase is needed for aiding progressive enforcement policies.

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[i] The UK College of Policing defines volume crime as any crime "…through its sheer volume, [having] a significant impact on the community and the ability of the local police to tackle it." See https://www.app.college.police.uk/app-content/investigations/introduction/#volume-crime

[ii] https://eucpn.org

[iii] http://www.crime-prevention-intl.org

[iv] https://www.ncjrs.gov/pdffiles1/nij/sl001049.pdf

[v] https://www.ncjrs.gov/pdffiles1/nij/sl001155.pdf

[vi] https://www.crimesolutions.gov/about_instrument.aspx