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Law Enforcement Policy and Personnel Responses to Terrorism: Do Prior Attacks Predict Current Preparedness?

Bryce Kirk
University of Arkansas, Fayetteville

Law Enforcement Policy and Personnel Responses to Terrorism: Do Prior Attacks Predict Current Preparedness?

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Bryce Kirk
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_____
Casey T. Harris, Ph.D.
Thesis Director

_____
Jeffrey Gruenewald, Ph.D.
Committee Member

_____
Christopher Shields, Ph.D., J.D.
Committee Member

Abstract

Terrorism has been on the mind of the American people and politicians alike since the 9/11 attacks over two decades ago. In the years since, there has been a massive shift in law enforcement priorities from community-oriented policing (COP) to homeland security-oriented policing. This was especially evident in the establishment of the Department of Homeland Security (DHS) shortly after the attacks on the World Trade Center and Pentagon in 2001, which was established to aid law enforcement entities with terrorism preparedness. While prior literature has addressed a variety of factors that have contributed to terrorism preparedness, very little research has been conducted regarding law enforcement experiences with terrorism incidents in their jurisdictions and how these incidents have impacted preparedness measures. The current study utilizes data from the Law Enforcement Management and Statistics (LEMAS) survey from 2016, as well as the American Terrorism Study (ATS), Extremist Crime Database (ECDB) from 2001-2016, and American Communities Survey (ACS) 2012-2016 to examine preparedness measures among 1,243 state and local law enforcement agencies in the United States. Examining bivariate relationships and logistic regression techniques, we found that the presence of any terrorist incident or successful incident increases the likelihood of an agency to have a dedicated terrorism unit or personnel in place, particularly given prior experience with Islamic extremist terrorism.

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INTRODUCTION

In the two decades since September 11, 2001, terrorism has often found itself to be front and center in the minds of politicians and citizens alike. Today, terrorism ranks as one of the most pressing issues with nearly three-quarters of Americans citing it as a "major" concern along with disease, nuclear weapons, and cyberattacks (Pew Research Center, 2020). In turn, much of the federal budget in the 20th century has been dedicated to terrorism preparedness and response, as total counterterrorism spending has increased from 16 billion dollars in 2001 to approximately 175 billion in 2017, with government-wide homeland security budget authority making up nearly 35 percent of all counterterrorism spending (Stimson, 2018). While both federal (e.g., Department of Homeland Security) and state agencies continue to be the primary face of counterterrorism efforts, local law enforcement also plays a key role in responding to current terrorism incidents and preparing for those that might occur in the future.

To that end, a small body of research has grown over the last decade drawing attention to law enforcement terrorism preparedness. Several factors have emerged as critical for understanding variation in preparedness across agencies. For example, those organizations with more sworn officers (Lee, 2010; Bailey & Cree, 2012) or that share connections with larger, more urban agencies (Giblin, Burruss, & Schafer, 2014) tend to employ more dedicated counterterrorism personnel, equipment for terrorism investigation, or have written policies directing their departments in counterterrorism efforts. While this research provides a critical foundation for understanding the context of terrorism preparedness, it remains rather limited in that it has yet to address how organizational, community/contextual, and historical factors might simultaneously affect terrorism preparedness. Specifically, the current study seeks to address these gaps and expand upon the prior research by asking two questions: (1) *Does the presence of*

past terrorism events predict counterterrorism policy and practice in local law enforcement agencies? and (2) *How do other organizational or contextual characteristics of those agencies affect counterterrorism policy and practice in local law enforcement agencies?*

LITERATURE REVIEW

Amidst the growing concern about terrorist violence in the United States is a recognition that terrorism differs across ideologies. For example, animal and environmental rights groups promulgated bombing attacks throughout the Western and Midwestern states in the late 1990s and early 2000s (Charmak, Freilich, Duran, & Parkin, 2013). In other instances, far-left attacks pushing a revolutionary socialist agenda with disdain for American capitalism and imperialism were more common in the 1970s and even early 2000s as compared to more recent years (Silva, Duran, Freilich, & Chermak, 2020). Meanwhile, in the aftermath of 9/11, much of the focus on ideological terrorism has been concentrated on preparing for Islamic extremism which prioritizes the concept of jihad (holy war) against the West for its exploitation of Islam and the Middle East (Simons, 2016). Most notably across the last decade, far-right terrorism has been the main priority of law enforcement agencies in both the United States and Europe and is characterized by fierce nationalism, belief in conspiracy theories, and suspicion of globalization and the U.S federal government. (Auger, 2020; Collins, 2021). Incidence of violence perpetrated by the right has increased over the past few decades and now makes up most violent offenses in the United States (German & Mauleón, 2019).

Terrorism has been prominent among American public and political concerns since the mid-to-late 20th century. Notably, it was the Reagan administration that oversaw the implementation of significant counterterrorism measures in the years following the freeing of American hostages in Iran, including a declaration that counterterrorism would be a top priority

with no concessions granted to terrorists (Gunter, 1994). Several antiterrorism bills were established in 1984, including the Act for the Prevention and Punishment of the Crime of Hostage-Taking, the Aircraft Sabotage Act, the Act for Rewards for Information Concerning Terrorist Acts, and the Prohibition Against the Training or Support of Terrorist Organizations Act of 1984 (Liech, 1984).

Nevertheless, terrorist incidents from a variety of different actors, groups, and ideological inclinations (e.g., right-wing, left-wing, ethnic, and Islamic) were cause for concern among policymakers and citizens throughout the 1980s. Many of these attacks targeted government and military institutions alongside public-facing businesses and commercial airlines. Critically, law enforcement agencies during this period, particularly federal agencies, remained in a state of heightened attention though terrorism prevalence settled into a cyclical pattern increases and decreases from year-to-year (Hoffman, 1988). In the ensuing decade, however, several major attacks in the United States, including the World Trade Center in 1993, the Alfred P. Murrah building in Oklahoma City in 1995, and a bombing at Olympic Park in Atlanta in 1996, saw a change in public perceptions of terrorism. For example, polling from the early 1990s revealed that most Americans came to see terrorism to be a serious threat to U.S security (Kuzma, 2000), a perception that became coupled with calls for law enforcement to do more to prevent and respond to such attacks.

Foundationally, law enforcement responses to terrorism shifted at the turn of the 21st century following the events of September 11, 2001. The 9/11 attacks on the World Trade Center and the Pentagon were perhaps the most devastating terrorist attacks in history with the death of almost 3,000 Americans (Hoffman, 2002). Echoing growing concern throughout the late 1990s, the impact of the 9/11 attacks weighed heavily on American policymakers and citizens alike and

security measures in the United States were amplified in the following years immediately (Nacos, Bloch-Elkon, & Shapiro, 2007; Gaibulloev & Sandler, 2019). The Bush administration's new "War on Terror" and curbing of key civil liberties (e.g., via the Patriot Act) were designed to enhance counterterrorism security measures and included the founding of the Department of Homeland Security (DHS) with billions of dollars for counterterrorism funding (Gaibulloev & Sandler, 2019).

Key for the current study, the creation of the Department of Homeland Security marked an important organizational period in the American fight against terrorism. In particular, the Bush Administration and new Department of Homeland Security found it difficult to oversee the relatively decentralized terrorism prevention and response efforts of all agencies. As a result, 22 government agencies were consolidated to centralize terrorism defense (Mabee, 2007). Simultaneously, the Patriot Act changed protections established under the Foreign Intelligence Security Act of 1977 (FISA) – which had separated intelligence and law enforcement gathering practices – to now include three key objectives: the prevention of terrorist attacks within the United States, a reduction in America's vulnerability to terrorism, and the minimization of damage from attacks that occurred (Haynes, 2004). The result of these policy and organizational shifts was the extension and expansion of local law enforcement efforts directed toward terrorism prevention and response.

To be sure, law enforcement practice and policy had undergone other periods of significant transformation (e.g., from night watchmen to more organized policing strategies in the early 20th century) (Marks & Sun, 2007). In a similar manner after the 9/11 terrorist attacks, many larger police departments gained access to Federal Bureau of Intelligence terrorism information and changed the manner in which they engaged in detecting potential threats in the

community (Marks & Sun, 2007). This led many law enforcement agencies to adopt intelligence led policing strategies and aided in the establishment of 72 official fusion centers in the United States to improve the dissemination of information across agencies and to the private sector (Chermak, Carter, Carter, McGarrell, & Drew, 2013). Central to the current study, the result of these changes has been that *regional and municipal law enforcement agencies have increasingly engaged in terrorism prevention and response* and, in many ways, now operate as the frontline of terrorism preparedness (Haynes & Giblin, 2014).

Academic attention to how law enforcement agencies enact policies and practices, including regarding terrorism preparedness, has accompanied the shifts described above. We now turn to a brief review of that literature. Our attention centers on the state of knowledge in the empirical literature describing the factors impacting agency-level law enforcement activities broadly and for terrorism preparedness specifically.

Predictors of Law Enforcement Agency Activities

Law enforcement agencies create varying policies or practices that depend upon the problems that they may need to address both internally and externally in service to their communities. Research shows that characteristics of those organizations and the local communities they serve determine the extent to which those agencies clear crimes or establish dedicated units for specific crimes. As an example, agencies serving larger populations (e.g., over 75,000 residents) are more likely to identify human trafficking as a high priority, implement training centered on it, have policy or protocol in place to combat it, and designate units or personnel dedicated to investigating human trafficking (Farrell, McDevitt, & Fahy, 2008). Likewise, white-collar crime units or task forces are not present in all agencies (Cliff & Desilets, 2014) with the Justice Department having only established Economic Crime Enforcement Units

in the late 1970s (Abrams, 1980). This practice has trickled down unevenly to local agencies that are looking to counteract fraud and financial crimes in the subsequent decades (Simpson & Weisburd, 2009).

In much the same manner, cybercrime has also emerged as a challenge for local, state, and federal law enforcement agencies. Some scholars have noted that local law enforcement agencies have trouble mobilizing efforts to counter cybercrime since officers often must create and mobilize resources without much funding or training (Harkin, Whelan, & Chang, 2018). In turn, Hinduja and Schafer (2009) show that states with larger populations (e.g., Texas, California, and Florida) are more likely to have their law enforcement agencies create designated cybercrime units, including with internet presence, to address specific digital threats in their jurisdictions. Meanwhile, Willits and Nowacki (2016) reveal that larger agencies, those facing larger task scope challenges (e.g., different crime control expectations), use more technologies, and that have adopted specialization strategies are more likely to use cybercrime units than other agencies. In sum, some law enforcement agencies appear to have the resources and directives from their local communities to develop more niche crime control activities, including specialized units and policies for things like cyber/white-collar crime or human trafficking, while others do not.

We draw similar parallels with the crime clearance rates across agencies: some organizational and community characteristics are associated with higher clearance rates for both violent and property crime. For example, homicide clearance rates have been found to be associated with structured and active leadership, including regular information sharing, properly resourced investigative units, detailed case management systems, and other regulatory practices (Scott & Welford, 2021). Additionally, agency size has been observed to have a role in clearance

rates for different types of crime such as homicide, aggravated assault, and robbery across time (Scott, Wellford, Lum & Vovak, 2019). Finally, social circumstances can also affect the likelihood of clearance within a community. These circumstances include racial and economic inequality, residential mobility, and family disruption (Roberts, 2008). Thus, examples are environmental/contextual and agency traits matter for a host of agency-level responses to crime and may do so similarly for terrorism preparedness.

Gaps in Knowledge

While the studies above make important advances for understanding how local law enforcement enacts policies and practices to prepare for terrorism events, there are several notable gaps in this research. First, many of these studies use older data, raising the questions as to whether their findings continue to reflect the conditions current law enforcement strategies. For example, prior research by Randol (2012) uses the 2003 Law Enforcement Management and Statistics, while Giblin, Burress, and Schafer (2014) utilize data from 2004. The most current data observed in Table 1 is from over 13 years ago (i.e., 2007). Since then, the nature of terrorism and law enforcement response to it has undergone evolution, making the need for more recent scholarship warranted.

Second, most of the focus in prior literature examines very basic demographic characteristics of communities, including population size and rurality, with little examination of other macro-level characteristics of service areas for law enforcement. For example, Bailey and Cree's (2010) assessment of Michigan law enforcement agencies reveals greater terrorism preparedness among agencies in more populous communities. Similarly, prior studies also focus on measures of rurality and urbanism (Giblin et al. 2014). While these factors are important in understanding how agencies function relative to terrorism preparedness, more research is needed

to address features of local communities, including measures of wealth or poverty, racial and ethnic diversity, and other socio-demographic factors, that might similarly affect how law enforcement enact policies and practices designed to thwart or respond to terrorism.

Third and most notably, none of the prior studies explicitly assesses whether a terrorism event has occurred in the area served by each agency. Indeed, some prior research has noted the importance of actual terrorism risk but have had to rely upon imperfect measures of it. For example, Roberts, Roberts and Liedka (2012) assess the factors affecting preparedness of local police agencies nationwide from 2003-2007, but only capture the vulnerability or risk of terror (e.g., built environment targets) rather than the actual prior incidence of terrorism activity nearby. Actual risk due to prior experience with terrorism should be an equally – if not more – important characteristic upon which law enforcement agencies might develop their template for appropriate response in the future.

THEORETICAL FRAMEWORKS

Despite these gaps in knowledge, theories of organizational behavior suggest that agency, community, and situational (i.e., terrorism incidence) factors may shape law enforcement agency preparedness. On the one hand, some theories emphasize that law enforcement agencies might be more likely to prepare for terrorism because of internal factors, including existing organizational characteristics and practices. On the other hand, competing theoretical expectations point to external factors that might foster greater terrorism preparedness, but have little or nothing to do with existing agency-level features. We review these different perspectives below.

Internal Factors

Organizations can be complex in how they operate within themselves. In organizations such as businesses, internal factors such as size or age of a facility can impact how efficiently an

individual plant will comply with corporate changes to environmental operations by a business (Howard-Grenville, Nash, & Coglianese, 2018). Risk management considerations are also important in understanding internal factors of organizational operations, as is the case for construction companies. Project budget, schedule limitations, hostile environments, and complexity are among the internal issues that can challenge the success of a project and whether an organization can effectively compete their task (Obondi, 2020).

Changes implemented by police agencies based on internal factors include efficiency and organizational specialization, as well as agency professionalism (Nicholson-Crotty & O'Toole, 2004). Community policing reforms also face challenges from rigid bureaucratic systems and resistance to change by officers, who can be resistant to changes in their job due to lack of sufficient information from management regarding these changes (Rosenbaum & Lurigio, 1994). Last, political vulnerability also has an impact on organizations at risk for budget changes, as can be the case with younger or smaller agencies (Giblin & Nowacki, 2018).

The introduction of terrorism response equipment, personnel, and procedures are a relatively new development in the function of police agencies (Randol, 2012). Organizations have varying structural attributes that are influenced by environmental factors, including "stable and predictable" and "unstable and predictable" which lead to different outcomes of organizational operation (Onday, 2016).

External Factors

Along with internal factors, external pressures also have an impact on how organizations operate. First, many organizations deal with the outside pressure of competition from other organizations, whether it be actual or potential (Ulen, 2010). Second, corporate social responsibility also relies on external factors to determine the breadth of their responsibilities to

the public. This can include consumers, local communities, charitable organizations, economic variables (market share, level of concentration), and innovation in management (Babiak & Wolfe, 2009). Third, external factors also put pressure on corporations to adopt counter-pollution measures in their business dealings, which can aid in establishing a good reputation among competitors (Menguc, Auh, & Ozanne, 2010).

Changes that impact police departments can also be a result external pressure. One example is external economic factors that may cause an organization to decline, such as a recession which can reduce government spending for organizations such as police departments (Giblin & Nowacki, 2018). External circumstances also impact community-oriented policing strategy due to factors such as income level, government structure, and social disorganization. This adds to substantial organizational changes that must be made by departments to adopt COP (Schaefer Morabito, 2010). Another key aspect in understanding external factors in community policing is the level of participation by community members in COP initiatives, which often falsely assume that members of the community will get involved in COP efforts after an invitation from police agencies (Rosenbaum & Lurigio, 1994).

Since 9/11, organizations such as police departments have undergone changes in organizational processes in how they've countered terrorism in their jurisdictions. Change is often planned, and a significant reason for change is from environmental influences (Marks & Sun, 2007). Perceived vulnerability to terrorist incidents occurring in a community are a main driver of preparedness levels and apparent capacity for law enforcement agencies, and that an understanding of the threat of attack is crucial in gauging agency preparedness and organization (Giblin, Schafer, & Burruss, 2009). Agencies will often put change into motion when faced with institutional pressures, such as actions of peer agencies and professional or government

publications (Giblin, Burrus, & Schafer, 2010; Chermak, Carter, McGarrell, & Drew 2012). Organizations such as police agencies, then, can be seen as being a part of an environment and make up several entities including other police departments, politicians, and the media (Brinser & King, 2016).

THE CURRENT STUDY

To reiterate, the objective of the current study is to investigate two closely related questions: (1) Does the presence of past terrorism events predict counterterrorism policy and practice in local law enforcement agencies? and (2) How do other organizational or contextual characteristics of those agencies affect counterterrorism policy and practice in local law enforcement agencies? Below, we describe the data and methodology used to address these questions.

Sources of Data

First, data on law enforcement responses to terrorism are taken from the 2016 LEMAS dataset, which is a survey sample drawn from the 2016 Law Enforcement Agency Roster (LEAR). LEMAS has been periodically administered since 1987 and collects data from over 3,000 general purpose state and local law enforcement agencies nationwide, including details pertaining to agency size, responsibility, operating expenditures, officer salaries, job functions of employees, special demographic characteristics of officers, weapons, and armor policy, as well as education and training requirements, computers, information systems, video technology, vehicles, special units, and community policing initiatives (LEMAS, 2016). After removing agencies that were without sworn staffing and at least one full-time sworn officer and sheriff's offices without primary law enforcement jurisdiction in the counties they served, the 2016 LEMAS database contains information for 2,778 local and county police agencies, including

self-representing (SR) agencies with 100 or more sworn full-time officers and non-self-representing (NSR) agencies employing fewer than 100 full-time equivalent sworn officers (LEMAS, 2016). For the purposes of the current study, the 2016 LEMAS data includes several variables pertaining to terrorism policy and practice, including written policy procedures on how agencies address problems/tasks dealing with terrorism or homeland security and the presence of dedicated personnel for anti-/counterterrorism.

Second, we use the American Terrorism Study (ATS) database to measure the actual incidence of terrorism in the jurisdiction areas served by our LEMAS agencies. The ATS is managed by researchers from the Terrorism Research Center (TRC) at the University of Arkansas, which is a federally funded, non-partisan research organization. The ATS is made up of federal terrorism-related court cases, including details on the persons involved in these incidents, tied to relevant terrorism incidents. The ATS covers a variety of variables, including demographic details related to the incident, terrorist group associated, temporal and geospatial data related to the incident, preceding activities, prosecution and defense data, case outcome, sentencing data, and other valuable details. For the current study, the ATS allows for the identification of communities that have had a terrorist incident in the past relative to the agencies working within those communities' preparedness for future terrorism incidents beginning in 2001 as of 2016 (i.e., the time of LEMAS survey response). [1] We also use the Extremist Crime Database (ECDB), utilized for our incident data in addition to the ATS. The ECDB is an open-source database managed by researchers from the University of Maryland focusing on non-violent and violent crime committed by far-right extremist groups and includes data on events,

[1] 2001 is selected as the starting year given that it may have fundamentally altered the optics and resourcing for agencies to respond to terrorism.

perpetrators, and victims from 1990-2010. The database also includes statistical analyses of data, including descriptive analysis, as well as multivariate regressions and time-series analysis.

As a third source of data, we also draw from the American Communities Survey (ACS) by the United States Census Bureau. The ACS is conducted on a yearly basis between 2007 and 2017 and provides important data on the United States and its people in non-decennial years. The survey covers topics such as employment, occupations, education, home ownership, and other characteristics of places often used by government officials, researchers, and entrepreneurs for understanding communities. For the current study, the ACS is used to gain insight into demographic characteristics of the places that law enforcement agencies serve as they might impact terrorism preparedness alongside past terrorism events.

Unit of Analysis

The unit of analysis for the current study is the law enforcement agency, which includes local, county, and state organizations with at least one full-time staff and/or officer. We restrict our analysis to those agencies serving populations greater than 19,999 people and had at least 10 sworn officers, which gave us a final sample size of 1,243 agencies. Agencies are advantageous as units of analysis – rather than using individual officers or larger geographic units – since agencies are the ones making decisions rather than individual officers, not every agency in the same geographic area makes the same policy decisions, and agencies will make decisions based on perceived needs that their agency is tasked to address.

Dependent Variables

We include three dummy-coded terrorism preparedness outcomes from the 2016 LEMAS database. First, we examine if an agency had *terrorism policy/procedural directives.* This was taken from responses whereby agency representatives were asked: “does your agency have

written policy or procedural directives on the following", with yes or no as possible responses (dummy coded with 1 = yes). Second, we measured whether each agency had a specialized *terrorism unit/personnel* assigned full-time (dummy coded with 1 = yes). This was derived from a checklist of options for each agency that included whether agencies designated units or personnel to address this problem/task, or agencies addressed this problem/task without designated personnel, agencies didn't formally address this problem/task, or agencies did not report having this problem. Finally, third, we measured whether each agency maintained *terrorism-related intelligence*, which was taken from responses to the prompt: "did your agency maintain its own computerized files with intelligence-related to terrorist activity?" Responses were similarly dummy-coded (1 = yes).

Focal Independent Variables: Terrorism Incidence

The key independent variables used in this study were drawn from the American Terrorism Study (ATS) and Extremist Crime Database (ECDB). In particular, we measured whether each agency's county ever had a terrorist incident between 2001 and 2016 (*Any Incident*). Second, we recorded whether each agency's county ever had any successful terrorist incidents (*Any Successful Incident*), which was dummy coded with 1 = yes if there was a successful incident between 2001 and 2016. Success was defined as all weapons being delivered to the intended target causing a substantial degree of damage or when an incident occurred with the intended target, but the weapons used in the attack failed to detonate or discharge as the perpetrators intended (ATS). Third, we included a series of dummy variables for whether each agency's county experienced any terrorist incident between 2001 and 2016 for each of the following terrorism ideologies: (a) *far right*, (b) *Islamic extremist*, (c) *environmental*, and (d) *far*

left. Given the smaller sample sizes for each ideology, we include both unsuccessful and successful events for these dummy variables.

Agency Level Control Variables

Following prior literature on terrorism preparedness, we included a host of control variables shown to predict agency responses to extremist threats (Randol, 2013; Giblin, Burruss, & Schafer, 2014; Bailey & Cree, 2011; Roberts, Roberts, & Liedka, 2012; Lee, 2010). In particular, we include measures of functional differentiation, defined as *functional differentiation, occupational differentiation, formalization,* and *dollars per capita (ln)*. These measures were selected in relation to functions of law enforcement. *Functional differentiation* is defined through units or personnel dedicated to tasks such as bias or hate crime, drug enforcement, and gang crimes. *Occupational differentiation* is a measure of the total full-time administrative (non-sworn) staff divided by the total number of full-time sworn staff (with arrest power). *Formalization* refers to written policies or procedural directives met by agencies, such as vehicle pursuits, active shooters, and body cameras. The final agency control variables, *dollars per capita (ln)* measures the total agency operating budget divided by the total population served by a police agency.

County Level Control Variables

Finally, we utilized the 5-year (2012-2016) American Communities Survey (ACS) data to measure structural characteristics that could affect terrorism and law enforcement response pertaining to it. Specifically, we included *percent in poverty*, *percent unemployed*, *residential mobility* (% living in a different house in previous year), and *median household income*. Census data are key to examining whether and how jurisdictions that agencies exist in impact agency responses to threats like terrorism.

To adjoin these data, each census variable is measured at the county-level and assigned to each agency within the county.[2] In this way, the ATS provides data on where prior incidents of terrorism have occurred, including whether the attack was successful or if it was foiled, as well as the perpetrator, ideology, weapon type, and casualties. Additionally, we can explore environmental factors involved in terrorism incidents, including population size, size of the agency, and the characteristics of the communities they serve as they affect a law enforcement agency's response to terror.

Analytic Techniques

The analysis unfolds in two steps. First, we describe the sample of law enforcement agencies as captured by the 2016 LEMAS database. We focus on their organizational and contextual characteristics, as well as their overall historical experience with terrorism. Second, following prior studies on terrorism preparedness (e.g., Lee 2010; Roberts, Roberts, and Liedka 2012), we use logistic regression techniques to simultaneously explore how prior terrorism incidents and other organizational and contextual factors predict terrorism preparedness. Because our dependent variables are dichotomous (dummy variables), a logistic regression model helps to address whether an agency experienced a terrorist attack and the environmental factors that may surround it.

RESULTS

Summary Statistics

We begin by displaying descriptive statistics for our sample of 1,243 law enforcement agencies in Table 2. Means and standard deviations are provided for our dependent variables,

[2] There are few agencies that share counties. Over one-third of all agencies are the only law enforcement organization represented in LEMAS 2016 for their respective counties, while less than 5 percent of agencies share a county with 10 or more other agencies, making hierarchical or nested models less useful. Not surprisingly, supplemental models using these more advanced techniques reveal substantively similar results.

independent variables relating to terrorism, agency-level control variables, and county-level control variables. Our focus is on the mean levels of terrorism preparedness, as well as mean levels of different agency and contextual characteristics. We note four key findings below.

First, some terrorism preparedness actions are more common than others, but none are particularly widespread. In particular, an agency having written policy or procedural directives is more common than having a dedicated terrorism unit/personnel or terrorism related intelligence. For example, about two-thirds of agencies reported having a written terrorism policy/procedural directive (.66), but only a slight majority of agencies reported having a terrorism unit/personnel (.53). Less than half reported collecting and maintaining terrorism-related intelligence (.48). Thus, some types of terrorism preparedness measures are more common than others.

Second, across each of our terrorism variables, most agencies have not experienced terrorism incidents, regardless of ideology or success of those incidents. Specifically, only about 1 in 5 agencies (.21) operated in a county that had any kinds of recorded terrorism incident in between 2001 and 2016, while far fewer were in counties with any successful incident (.14). Looking at the four ideological variables provided by the ATS, more agencies operated in counties with Islamic extremist incidents (.13) far-right terrorism (.09), environmental terrorism (.05), or far-left terrorism (.01). As we return to in our discussion section, this may reflect that Islamic extremist incident are more likely to occur in metropolitan counties with a larger number of agencies operating.

As a third finding, we analyze four agency control variables. Overall, approximately 13.6% of agencies utilized functional differentiation, which accounts for whether an agency has a unit or person responsible for a variety of specializations, including bias/hate crime, human trafficking, and cybercrime. About one-fifth of agencies reported as having formalization (21.58

percent), which addresses agency policy or procedural directives regarding items such as vehicle pursuits, deadly force, and body cameras. Only 4% of agencies implemented occupational differentiation, which addresses the total number of full-time non-sworn officers divided by full-time sworn staff. Finally, we analyzed dollars per capita (ln) reported at 5.2%. measured by dividing an agency's operating budget by the total population served by an agency.

Finally, fourth, we note that the counties in which our law enforcement agencies operate have, on average, moderate levels of poverty (15.05 percent) and unemployment (7.36). Median household income is, on average, $57,291 per year with an average of 13.72 percent of residents having lived in a different house the year before.

Multivariable Models

The next step in the analysis addresses our research questions as to whether prior terrorism events predict current terrorism preparedness and whether other organizational or contextual characteristics of agencies affect counterterrorism policy and practice. To do so, we construct three sets of multivariable logistic regression for each of our dependent variables: terrorism policy/procedural directives, terrorism unit/personnel, and terrorism-related intelligence. For each dependent variable, we present of total of six models with one each of our terrorism variables (any incident overall, as well as any successful, far-right, far-left, Islamic extremist, and environmental incidents). As with our summary statistics table, the sample size for these models is 1,243 law enforcement agencies and each multivariate analysis includes all the independent variables. For ease of interpretation, each table displays odds ratios and standard errors.

The first multivariate table (Table 3) shows models predicting terrorism policy or procedural directives from law enforcement agencies. Critically, terrorism policy or procedure

shows no statistical significance for any of the terrorism related variables. That is, agencies that are in counties that have had any terrorism incident, any successful incident, far-right, Islamic extremist, environmental, or far-left incidents are no more or less likely to have a written policy or procedure regarding terrorism.

As an additional finding, however, several agency control variables have statistically significant relationships with the adoption of a written terrorism policy or procedures among agencies, controlling for other agency, contextual, and terrorism characteristics. Specifically, functional differentiation was found to be statistically significant ($p<.001$), such that agencies implemented specialized units or personnel in their jurisdictions (see Appendix A1), as was occupational differentiation ($p<.05$) indicating that full-time non-sworn and full-time sworn officers are important in understanding terrorism preparedness in our sample of agencies. Likewise, formalization was statistically significant ($p<.001$), meaning that agencies implemented a written policy or procedural directive relating to other law enforcement functions (see Appendix A1). None of the county-level predictors were statistically significant predictors of terrorism preparedness in this table.

Table 4 shows models predicting dedicated terrorism units or personnel in law enforcement agencies. In contrast to the results in Table 3, terrorism does appear to be statistically significantly related to whether an agency implements a dedicated terrorism unit or personnel. In particular, agencies in counties with any incident were found to be about 51 percent more likely to have dedicated units/personnel ($p<.05$), while those with any successful incident were marginally more likely to have the same ($p<.10$). Across terrorism ideologies, agencies in counties with Islamic extremist incidents were about 68 percent more likely to have a dedicated unit or person ($p<.01$). This is important to note regarding Islamic extremist terrorism, as it was

the only statistically significant form of ideological terrorism in this analysis. Thus, the occurrence of any incident or successful incident appears to influence agencies such that they are more likely to create dedicated terrorism units or assign personnel, especially given previous experiences with Islamic extremist terrorism.

Like Table 3, functional differentiation was also found to be statistically significant ($p<.001$) for each model, as was occupational differentiation (.001). This means that agencies are likely to implement written policy or procedural directives and dedicate more personnel to these directives based on presence of a dedicated terrorism unit or personnel. Formalization was similarly found to be a statistically significant predictor in each model ($p<..01$), indicating that agencies which have a dedicated unit or personnel for other law enforcement directives (e.g., human trafficking, cybercrime) will have a dedicated unit or personnel regarding terrorism preparedness. Finally, residential mobility was found to be significant (often marginally), meaning that agencies in counties with higher population turnover were slightly more likely to have dedicated terrorism units/personnel.

Table 5 shows the results of models predicting whether a law enforcement agency collected and maintained terrorism-related intelligence. Central to our first research question, none of the terrorism variable were found to be statistically significant when predicting intelligence related to terrorism. Yet, like the first two multivariable tables, functional differentiation was found to be statistically significant for each model ($p<.001$), while formalization was also found to be statistically significant in most of the models, as well. This indicate that the presence of dedicated units or personnel for other law enforcement priorities will also have intelligence related to terrorism preparedness.

DISCUSSION

The goal of the current study has been to understand terrorism preparedness among law enforcement agencies. Despite the political and social importance of law enforcement responses, research remains somewhat limited. No research to date has examined whether and how prior experience with terrorism is related to agency preparedness. Thus, the current study addressed two specific research questions: (1) does the presence of past terrorism events predict counterterrorism policy and practice in local law enforcement agencies? and (2) how do other organizational or contextual characteristics of those agencies affect counterterrorism policy and practice in local law enforcement agencies? In addressing these questions, we expand on prior research by accounting for key agency-level factors shown to impact policy and practice at those organizations, as well as the macro-level demographics of the communities served by those agencies and – critically – prior experience with different types of terrorist attacks.

Our analysis of 1,243 agencies in the United States for 2016 revealed, first, that levels of terrorism preparedness varied considerably even 15 years after the September 11, 2001 attacks. On the one hand, about two-thirds of agencies reported having written policy or procedures addressing terrorism. Thus, the practice of formally writing out a terrorism response has become moderately widespread among local law enforcement. On the other hand, only slightly more than half of agencies reported having a dedicated unit or person responsible for terrorism preparedness. Likewise, just under half of agencies collected and maintained terrorism-related intelligence.

Clearly, some kinds of terrorism preparedness are more prevalent than others, a finding that is unsurprising since not all agencies have the same needs or serve the same kinds of risk environments in their surrounding communities. Some of the preparedness outcomes (e.g.,

written policies and procedures) are simple to do and require comparably little effort from law enforcement officials. In contrast, developing a dedicated unit or person to handle terrorism requires a dedication of resources and time that agencies may not have or need/want to spend given their local perception of risk.

As a second and related finding, we found that terrorism remains a rare event for most agencies. The vast majority of agencies in our sample did not experience any sort of terrorist incident, regardless of ideology or success, during the 15 years between the 2001 attacks and the data collection for LEMAS. Only one-fifth of agencies sampled had any sort of incident occur in their surrounding county, which likely even overstates the prevalence of terrorism since many of the largest counties include a comparably large number of LEMAS-participating agencies and are also more likely to experience an attack in those same counties.

Third, our multivariable findings revealed that prior experiences with terrorism were generally unassociated with terrorism preparedness written policy, units/personnel, or intelligence gathering. No type of terrorism event (by ideology, success) was associated with law enforcement agencies adopting written policies or gathering and maintaining intelligence. Thus, prior experience with terrorism didn't seem to impact the likelihood of agencies taking simple preparedness steps.

However, fourth, we found that prior terrorism, successful incidents of terrorism, and Islamic extremist events were positively associated with the creation of specific terrorism units or personnel. Specifically, an agency operating in a county with any prior incidence of terrorism was found to be more likely to have a dedicated unit/person for terrorism response, as well as those agencies in counties with successful attacks. Perhaps this shows that labor and/or resource-intensive preparation, like carving out specific people for terrorism prevention and response,

only occurs when the threat of terrorism has already manifested into an attack (rather than less resource-intensive strategies like writing a policy). Yet, at the same time, not all ideological types of terrorism were linked to this type of preparedness: only agencies operating in counties with prior Islamic extremist incidents were more likely to have terrorism-specific units or personnel. This suggests that agency response to terrorism may reflect preparation because of incidents that are a greater part of public and political discourse than more common forms of extremism (e.g., far-right).

Fifth, several agency characteristics, including functional differentiation, formalization, and occupational differentiation, were predictive of terrorism preparedness, as well. Essentially, we found that if an agency has a general tendency to create crime-specific units (functional differentiation) or write out specific policies for different types of crime (formalization), those agencies were also more likely to have adopted each of the three terrorism preparedness measures. Similarly, agencies that were more laden with administrative staff as compared to sworn officers (occupational differentiation) were more likely to have taken the same steps for terrorism preparedness.

Implications for Theory

The results of this study provide mixed support for organizational theories directed toward law enforcement terrorism preparedness, which posit unique roles for agency, community, and incident factors in shaping response. On the one hand, our findings revealed that agency-level characteristics (e.g., formalization, occupational differentiation) matter a great deal in terms of whether an agency has written terrorism policies, dedicates units/people for response, or collects terrorism-related intelligence. The relationships for these variables were the most consistent and among the strongest in our models. This would lend support to theories

emphasizing internal factors and the inertia created by processes already in place within each organization. For example, it may be that law enforcement agencies with a history of writing policies, collecting intelligence, or delineating a specific unit for different forms of offending (e.g., cybercrime, white collar crime) are more likely to do the same for terrorism because of the ongoing practice itself rather than any assessment of actual risk in the wider community.

On the other hand, our findings also show that external factors matter too, though perhaps only in some circumstances. Prior experiences with terrorism were associated with subsequent terrorism preparedness in terms of employing specific terrorism units/personnel, particularly the presence of successful and Islamic extremist violence. As such, our findings lend some support to theories emphasizing features outside of organizations that motivate action within them.

Implications for Policy

In a similar manner to how police agencies address other avenues of crime, there are different methods to prepare and prevent it. On the one hand, that means agencies can decide on how to uniquely combat terrorism and prepare for it accordingly like they would with cybercrime or human trafficking. On the other hand, from a national security perspective, our findings suggest that coordinating and (where desirable) standardizing preparation for terrorism may be warranted. Clearly, law enforcement agencies are not all equally prepared for terrorism, even among agencies that have experienced terrorism nearby, and greater federal oversight could reduce disparities in places that share similar risk environments.

In addition to coordination and standardization, our results imply greater facilitation in adopting more resource-intensive preparation for terrorism may be useful. Most preparedness measures are simple, including writing policy and directives or collecting intelligence, whereas others (e.g., creating specialized units) are less common among law enforcement agencies. Many

agencies appear willing and able to take more simplistic measures, but few the sorts of changes that require dedicated personnel that might take away from other law enforcement priorities. It may be that homeland security coordination requires not just oversight, but targeted spending to build local law enforcement preparation for responding to terrorism.

Finally, our results may also reflect a lack of awareness among some local law enforcement agencies to the risks posed by terrorism. Again, we found evidence that prior incidents of terrorism, including moderately prevalent ideological incidents of far-right violence, were not associated with greater preparedness of any kind. As such, the adoption of policies and practices within broader homeland security agencies that socialize local agencies toward their relative risk of violence may be useful.

CONCLUSION

Terrorism preparedness policies vary across the United States depending on the needs of an agency, and the effect that incidents have on law enforcement varies, as well. Terrorism, as with other modes of criminal activity such as human trafficking or financial crime, can produce complicated and varied responses among the agencies tasked with combatting it. Given this reality, law enforcement agencies must look to their experiences to protect their communities and prepare for incidents, all while considering the strategic costs within those agencies. As local law enforcement agencies have taken a greater role in preparing for terrorist incidents, it is important to consider disparities in preparedness across the greater homeland security landscape.

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Appendix A1. List of LEMAS Variables		
Name	*Label*	*Description*
Terrorism Policy/Procedure	POL_TERROR	Dummy variable for whether each agency has a written policy or procedural directive for terrorism (1 = yes)
Terrorism Unit/Person	ADDR_TERROR	Dummy variable for whether each agency has a unit or person responsible for terrorism (1 = yes)
Terrorism Intel	TECH_ILES_INTEL	Dummy variable for whether each agency maintains its own computerized files with intelligence related to terrorist activity (1 = yes)
Functional Differentiation	FUNC_DIFF	Sum of dummy variable responses (1 = yes) for whether each agency has a unit or person responsible for: (1) Bias/Hate Crime, (2) Bomb/Explosive Disposal, (3) Child Abuse/Endangerment, (4) Community Policing, (5) Crime Analysis, (6) Cybercrime, (7) Domestic Violence, (8) Drug Education, (9) Drug Enforcement, (10) Environmental Crime, (11) Financial Crimes, (12) Gun Crimes, (13) Gang Crimes, (14) Human Trafficking, (15) Impaired Driving, (16) Internal Affairs, (17) Juvenile Crimes, (18) Missing Children, (19) Repeat Offenders, (20) Research and Planning, (21) School Safety, (22) SWAT, and (23) Victim Assistance
Occupational Differentiation	OCC_DIFF	Total full-time administrative (non-sworn) staff divided by full-time sworn (with arrest power) staff
Educational Requirement	REQ_SOME_COLL	Dummy variable for whether each agency has an educational requirement for at least “some college” (1 = yes)
Formalization	FORMALIZATION	Sum of dummy variable responses (1 = yes) for whether each agency has a written policy or procedural directive for the following: (1) vehicle pursuits, (2) deadly force, (3) less lethal force, (4) code of conduct, (5) maximum hours, (6) off duty conduct, (7) mental illness populations, (8) homeless persons, (9) domestic disputes, (10) juveniles, (11) in-custody deaths, (12) racial profiling, (13) civilian complaints, (14) strip searches, (15) active shooters, (16) stop and frisk, (17) foot pursuits, (18) motor vehicle stops, (19) misconduct, (20) prisoner

		transport, (21) demonstrations, (22) reporting use of force, (23) body cameras, (24) social media, (25) cultural awareness training
Community Policing	COMM_POLICING	Sum of dummy variables responses (1 = yes) for whether each agency has the following: (1) community policing as part of mission statement, (2) a written community policing plan, (3) employs community policing technology, (4) requires community policing training for new recruits, (5) has a written policing for community policing
Population Served (logged)	POPSERVED_LN	Total population served by agency in 2016 (natural log)
Spending per capita	DOLLAR_PER_CAPITA_LN	Agency operating budget divided by the total population served by agency
Full-time sworn rate	FTSWORN_RATE	Number of actual full-time sworn agency employees (with arrest power) divided by total population served, multiplied by 1,000.
Non-sworn rate	FTNON_RATE	Number of actual full-time non-sworn paid agency employees divided by total population served, multiplied by 1,000.

Table 1. Prior Terrorism Preparedness Studies

	Author (Year)	*Key Data Set*	*Year(s) of Data*	*Sample*	*Agency/Org. Outcome(s)*	*Key Findings*
1	Randol (2013)	LEMAS	2003	450 police departments in jurisdictions with 25k+ residents	Terrorism preparedness (sworn terrorism personnel; non-sworn terrorism personnel; 5-item CBRNE detection equipment; written terrorism response plan; cooperative planning agreements for terrorism)	1) Pop. size and violent crime rate increase terrorism intelligence personnel; (2) pop. size increases terrorism equipment use; (3) pop. size increases terrorism response planning
2	Giblin, Burruss, & Schafer (2014)	Census of State and Local Law Enforcement Agencies	2004	810 police agencies across the U.S. having 25 or fewer sworn officers	Terrorism preparedness (steps taken by departments to prevent, respond to, and recover from homeland security incidents); organizational efficacy (responses of various organizational aspects in the event of a homeland security incident across multiple-agency responses)	1) Terrorism preparedness is driven by the need to address terrorism incidents, rather than non-terrorism related; 2) Connections between agencies significantly influenced terrorism preparedness

3	Bailey & Cree (2012)	MCOLES (PAT; DAT)	2003	247 sworn law enforcement officers in Michigan	Terrorism preparedness	1) Michigan Law Enforcement agencies with more officers were better prepared for counter-terrorism initiatives; 2) Urban and Suburban areas in Michigan are more prepared for terrorist attacks than rural regions. 3) Attacks are more frequent in high population areas.
4	Roberts, Roberts, & Liedka (2012)	LEMAS	2003, 2007	374 local police agencies serving populations of 100k or more people	Terrorism related outreach, computerized intelligence information, and shared radio frequencies between agencies	1) Approximately 24% of agencies made organizational changes between 2003-2007 to address terrorist related threats.; 2) Community policing initiatives neither hinder not encourage counterterror initiatives.
5	Lee (2010)	DGSS	2003	281 municipal law enforcement agencies serving populations of 25k+ in 47 U.S states	Extent of homeland security implementation among municipal law enforcement agencies	1) Crime control and service provision were unrelated to homeland security implementation; (2) Order maintenance was positively correlated with counterterrorism measures; 3) Agencies with more sworn officers were more likely to implement homeland security priorities

Table 2. Summary Statistics for Law Enforcement Preparedness, Terrorism Prevalence, and Agency and County Characteristics, 2016 (n = 1243 agencies)

	Mean	Std. Deviation
Dependent Variables:		
Terrorism Policy/Procedural Directives	.66	.47
Terrorism Unit/Personnel	.53	.49
Terrorism-Related Intelligence	.48	.49
Terrorism Independent Variables: [a]		
Any Incident	.21	.41
Any Successful Incident	.14	.35
Any Far Right	.09	.29
Any Islamic Extremist	.13	.34
Any Environmental	.05	.23
Any Far Left	.01	.09
Agency-Level Control Variables:		
Functional Differentiation	13.64	5.79
Occupational Differentiation	.04	.09
Formalization	21.58	3.48
Dollars per Capita (ln)	5.23	.80
County-Level Control Variables:		
% Poverty [b]	15.05	5.14
% Unemployed [b]	7.36	2.11
Median Household Income [b]	57291.34	14746.55
Residential Mobility	13.72	6.21

a Terrorism prevalence variables reflect the proportion of agencies (not counties) experiencing each type of terrorism event.
b Poverty, unemployment, and median household income are combined into a single index of Disadvantage using principal component analysis.

Table 3. Multivariable Logistic Regression Models Predicting Terrorism Policy/Procedural Directives, 2016 (n = 1243 agencies)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Terrorism:						
Any Incident	.84 (.16)	-	-	-	-	-
Any Succ. Incident	-	.75 (.16)	-	-	-	-
Any Far Right	-	-	.78 (.19)	-	-	-
Any Islamic Extremist	-	-	-	.94 (.22)	-	-
Any Environmental	-	-	-	-	.94 (.31)	-
Any Far Left	-	-	-	-	-	1.43 (1.17)
Agency-Level Controls:						
Func. Differentiation	1.08*** (.02)	1.08*** (.01)	1.08*** (.02)	1.08*** (.02)	1.08*** (.02)	1.08*** (.02)
Occ. Differentiation	9.82* (8.98)	9.55* (8.74)	9.97* (9.13)	9.77* (8.94)	9.58* (8.78)	9.68* (8.86)
Formalization	1.67*** (.06)	1.68*** (.06)	1.67*** (.06)	1.68*** (.06)	1.68*** (.06)	1.68*** (.06)
Dollars per Capita (ln)	.96 (.14)	.96 (.14)	.95 (.14)	.95 (.14)	.95 (.14)	.94 (.14)
Sworn Offc. (per 1000)	.95*** (.12)	.96 (.12)	.95 (.12)	.95 (.12)	.95 (.12)	.95 (.12)
County-Level Controls:						
Disadvantage	1.02 (.05)	1.02 (.05)	1.02 (.05)	1.02 (.05)	1.02 (.05)	1.02 (.05)
Residential Mobility	.99 (.01)	1.00 (.01)	.99 (.01)	.99 (.01)	.99 (.01)	.99 (.01)
R^2	.30	.30	.30	.30	.30	.30

Note: Odds ratios and accompanying standard errors displayed for ease of interpretation.
† p<.10, * p<.05, ** p<.01, *** p<.001

Table 4. Multivariable Logistic Regression Models Predicting Dedicated Terrorism Unit/Personnel, 2016 (n = 1243 agencies)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Terrorism:						
Any Incident	1.51* (.26)	-	-	-	-	-
Any Succ. Incident	-	1.46† (.29)	-	-	-	-
Any Far Right	-	-	1.27 (.30)	-	-	-
Any Islamic Extremist	-	-	-	1.68** (.36)	-	-
Any Environmental	-	-	-	-	.80 (.24)	-
Any Far Left	-	-	-	-	-	3.56 (2.97)
Agency-Level Controls:						
Func. Differentiation	1.23*** (.02)	1.23*** (.02)	1.23*** (.02)	1.23*** (.02)	1.23*** (.02)	1.23*** (.02)
Occ. Differentiation	162.83*** (184.60)	174.07*** (197.00)	173.72*** (197.28)	161.21*** (182.26)	175.37*** (198.85)	185.47 *** (211.04)
Formalization	1.10** (.03)	1.08** (.03)	1.08** (.03)	1.08** (.03)	1.08** (.03)	1.08** (.03)
Dollars per Capita (ln)	1.09 (.15)	1.11 (.15)	1.11 (.15)	1.08 (.14)	1.13 (.15)	1.12 (.15)
Sworn Offc. (per 1000)	.89 (.09)	.89 (.09)	.89 (.09)	.89 (.09)	.89 (.09)	.89 (.09)
County-Level Controls:						
Disadvantage	.99 (.05)	1.02 (.05)	.98 (.05)	.98 (.05)	.97 (.05)	.97 (.05)
Residential Mobility	1.02† (.01)	1.00† (.01)	1.02* (.01)	1.02† (.01)	1.03* (.01)	1.02* (.01)
R^2	.24	.24	.24	.24	.24	.24

Note: Odds ratios and accompanying standard errors displayed for ease of interpretation.
† p<.10, * p<.05, ** p<.01, *** p<.001

Table 5. Multivariable Logistic Regression Models Predicting Intelligence Related to Terrorism, 2016 (n = 1243 agencies)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Terrorism:						
Any Incident	.95 (.15)	-	-	-	-	-
Any Succ. Incident	-	.88 (.15)	-	-	-	-
Any Far Right	-	-	.79 (.17)	-	-	-
Any Islamic Extremist	-	-	-	1.08 (.19)	-	-
Any Environmental	-	-	-	-	.71 (.19)	-
Any Far Left	-	-	-	-	-	.54 (.40)
Agency-Level Controls:						
Func. Differentiation	1.10*** (.01)	1.10*** (.01)	1.10*** (.01)	1.10*** (.01)	1.10*** (.01)	1.10*** (.01)
Occ. Differentiation	1.74 (1.28)	1.71 (1.26)	1.79 (1.32)	1.71 (1.26)	1.64 (1.20)	1.72 (1.26)
Formalization	1.20*** (.03)	1.20*** (.03)	1.20*** (.03)	1.20*** (.03)	1.20*** (.03)	1.20*** (.03)
Dollars per Capita (ln)	.86 (.10)	.86 (.10)	.87 (.10)	.86 (.10)	.87 (.10)	.86 (.10)
Sworn Offc. (per 1000)	1.00 (.09)	1.00 (.09)	1.00 (.09)	.99 (.09)	.99 (.09)	1.00 (.09)
County-Level Controls:						
Disadvantage	1.04 (.04)	1.04 (.04)	1.04 (.04)	1.04 (.04)	1.03 (.04)	1.04 (.04)
Residential Mobility	.99 (.01)	.99 (.01)	.99 (.01)	.99 (.01)	.99 (.01)	.99 (.01)
R^2	.11	.11	.11	.11	.11	.11

Note: Odds ratios and accompanying standard errors displayed for ease of interpretation.
† p<.10, * p<.05, ** p<.01, *** p<.001