

End-User Perceptions of Intelligence Dissemination from a State Fusion Center

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Abstract

This research examines end-user perceptions of an intelligence product disseminated from a state fusion center in the northeast region of the United States. The current literature suffers from an empirical gap within the arena of contemporary law enforcement intelligence; largely due to the difficulty of obtaining data related to such practices. This research informs this gap and provides insights into local law enforcement intelligence sharing. Descriptive statistics and interview narratives are presented. Original survey data was collected from a sample of law enforcement agencies subscribed to the fusion center's intelligence listserv. Random interviews with survey respondents were also conducted and Nvivo software was utilized to develop qualitative constructs. Findings indicate the intelligence product is read daily and perceived to be moderately useful by recipients. End-users are primarily concerned with jurisdiction-specific and officer safety-related information. Upper-level administrators are the organizational lynchpins for funneling information to patrol officers.

Keywords:

Intelligence, Fusion center, Information sharing, Policing, End-users

End-User Perceptions of Intelligence Dissemination from a State Fusion Center

In the wake of the terrorist attacks of September 11, 2001 (hereafter 9/11), the concept of multi-agency information centers in the United States was transformed into what are now known as fusion centers to serve as a key mechanism to improve law enforcement information sharing and the utilization of intelligence products. In short, fusion centers are entities diverse in personnel and agency composition that serve as a conduit to facilitate effective information sharing across both geographic and authoritative jurisdictions (i.e., local, state, and federal). Though fusion centers are not the sole component of law enforcement intelligence, they perhaps represent the most significant investment of resources and tangible change in law enforcement post-9/11. Thus it is not surprising that these centers have been the subject of intense debate. While the majority of government reports and academic research to date has advocated for these centers (Carter and Chermak, 2012), concerns over their operations (US Senate, 2012) and overall effectiveness (Taylor and Russell, 2012) have been called into question.

The literature on fusion centers is progressing, but significant knowledge gaps remain. Specifically, the literature is sparse with respect to; 1) what extent do recipients of intelligence products further share this information within their own agency; 2) the frequency at which fusion centers distribute intelligence products; and 3) intelligence products desired by recipients from fusion centers. This research is not a parsimonious test of theory. Both scholars and professionals are in need of insight with regard to the practices examined within this research. Sparse evidence exists pertaining to reciprocal relationships for information and intelligence sharing between fusion center and state and local law enforcement. From an academic research perspective, the literature is uninformed about how state and local law enforcement perceive the products they receive from fusion centers as well as the perception of information provided to

fusion centers from state and local law enforcement. The present study seeks to inform the literature regarding the former knowledge gap and provide insights into fusion center information sharing through original survey data and interviews with law enforcement personnel who receive fusion center analytic products.

Law Enforcement Intelligence

Information Sharing

One of the key elements to the successful use of intelligence for the prevention and mitigation of risk is widespread information sharing. Such risks, especially at the fusion center level, are focused on terrorism. The Office of Homeland Security's *National Strategy for Information Sharing* (2007, p.1) stated "Our success in preventing future terrorist attacks depends upon our ability to gather, analyze, and share information and intelligence regarding those who want to attack us, the tactics they use, and the targets that they intend to attack." To this end, law enforcement must have effective mechanisms for sharing information as well as a willingness to engage in proactive information sharing. There is reason to suspect that, despite substantial effort, information sharing in the area of intelligence is significantly limited (Chermak *et al.*, 2013; Cooney *et al.*, 2011). Intelligence should guide law enforcement's operational and strategic decision making (Carter, 2009). In order to achieve this desired end, intelligence must get into the hands of decision makers in the form of an actionable intelligence product from which action can be taken. Fusion centers are the medium through which actionable intelligence products reach state and local law enforcement.

The Fusion Center Model

There are currently 78 official fusion centers in the U.S. (US House of Representatives, 2013) to increase the exchange of information and data across government and private sectors to enhance law enforcement's ability to fight crime and terrorism and prevent threats (Global Intelligence Working Group, 2005). The relationship between state and local law enforcement and fusion centers is reinforced by the *National Strategy for Homeland Security* that identifies the philosophy as one of the primary tools to combat terrorism and threats to the U.S (Homeland Security Council, 2007). Fusion centers are designed to serve as a conduit for facilitating information sharing across jurisdictions while also providing an analytic capability for many local agencies that would otherwise not have access to crime and intelligence analysts. In order for fusion centers to meet their overarching mission, to improve information sharing, they must have an effective method of communication with state and local law enforcement.

There is no single model for a fusion center, namely because of the diverse needs and environmental characteristics that affect the structure, processes, and products of such a center. A Congressional Research Service report raised questions regarding the current and potential efficacy of fusion centers. The report notes that in light of the growth of the fusion centers in state and local jurisdictions without a coordinated national plan, "there appears to be no 'one-size-fits-all' structural or operational model for fusion centers" (Rollins, 2008, p.18). From a centralized federal perspective, as reflected in the report, the lack of a uniform model is assumed to be a flaw (Taylor and Russell, 2012). However, the state and local perspective is somewhat different. Indeed, the ability to build a fusion center around grassroots needs is preferred; this permits state and local agencies to mold the fusion center into a model that best suits the needs and challenges that are idiosyncratic to each jurisdiction and the communities they serve. As noted by Johnson and Dorn (2008, p.38) in describing the New York State Intelligence Center,

“Creating one center for intelligence and terrorism information, to combine and distribute that information to law enforcement agencies statewide, prevents duplication of effort by multiple agencies. Additionally, one state fusion center serving the entire New York law enforcement community provides a comprehensive picture of criminal and terrorists networks, aids in the fight against future terrorists events and reduces crime.”

Fusion Centers and Local Police

Fusion centers serve as a lynchpin of information sharing both vertically between levels of law enforcement as well as horizontally across state and local agencies. The nexus between threats to public safety and local law enforcement has been well documented (Boba, 2009; Clarke and Newman, 2006; Newman and Clarke 2008). Local law enforcement agencies are in a unique position to push vital information to fusion centers as a result of their knowledge about individuals, groups, and organizations operating in local communities as part of their day-to-day operational work. As Bayley and Weisburd (2009) noted, “low policing” that focuses on street-level interactions among law enforcement and community members is perhaps one of the most significant benefits police have in their counter-terrorism efforts.

As Masse and his colleagues (2007, p.7) note in their report to Congress: “The 800,000 plus law enforcement officers across the country know their communities most intimately and, therefore, are best placed to function as the “eyes and ears” of an extended national security community. They have the experience to recognize what constitutes anomalous behavior in their areas of responsibility and can either stop it at the point of discovery (a more traditional law enforcement approach) or follow the anomaly or criminal behavior, either unilaterally or jointly with the Federal Bureau of Investigation (FBI), to extract the maximum intelligence value from

the activity (a more intelligence-based approach).” Fusion centers are positioned to be the operational capacity through which local law enforcement engage in the more intelligence-based approach (Carter, 2014; Masse *et al.*, 2007). This, however, is a significant shortcoming of the current knowledge base as the majority of fusion center research has either been conceptual or focused on fusion center operations and practices rather than their interaction with local agencies.

There are two notable studies that explored fusion centers and local law enforcement. Both of these studies focused primarily on local perceptions of the usefulness of fusion centers. First, in their study of the 184 local law enforcement executives in South Carolina, Cooney and her colleagues (2011) noted that while most local law enforcement personnel perceived the South Carolina fusion center to be useful, the percentage of locals with opposing perceptions was significant enough to warrant further research and policy reconsiderations. Their study also concluded that local agencies which identified themselves as engaging in “intelligence-led policing” viewed the fusion center more favorably. Second, Ratcliffe and Walden (2010) utilized survey and interview information from 51 state troopers about their perception of information received from and sent to a fusion center in the Northeast region of the United States. Their findings indicated an overall ambiguity of the fusion center’s role with state and local law enforcement. Troopers tended to prefer information received from fellow troopers over fusion center products as well as rarely providing information to the center to be included in analysis. Despite low overall levels of trooper acceptance of the fusion center, it was noted that troopers consistently accessed fusion center information – likely due to its ease of access. Ratcliffe and Walden (2010) go on to note the importance for future research to explore how fusion centers can disseminate intelligence products more strategically and that such an

exploration would require surveying end-users of intelligence products. The current study seeks to build on this recommendation by surveying end-user perceptions of a fusion center in the Northeast region.

Methodology

Survey of Intelligence Product Readers

Empirical research exploring law enforcement intelligence issues has been severely hampered by a lack of access to, and unwillingness to participate by, intelligence personnel within agencies (see Chermak *et al.*, 2013). Moreover, ideal surveying methods – such as random sampling – are not feasible given the fidelity of intelligence practices nationwide. Not every law enforcement agency in the country is actively engaged in information sharing and intelligence practices (Carter and Phillips, 2014), thus a targeted sample is required. Virtually all intelligence research to date (post-9/11) has been conducted based on purposive samples where the researchers had an existing relationship with the intelligence personnel (see Carter and Phillips, 2014; Chermak *et al.*, 2013; Cooney *et al.*, 2011; Cope, 2004; Darroch and Mazerolle, 2013; Graphia-Joyal, 2010; Ratcliffe and Walden, 2010; Ratcliffe *et al.*, 2014). This purposive sampling approach is even more pertinent with regard to fusion centers. Per the Department of Homeland Security-mandated fusion center guidelines (Global Intelligence Working Group, 2005) and baseline capabilities of fusion centers (Global Intelligence Working Group, 2008), each fusion center is required to maintain strict security requirements, including having a sensitive compartmented information facility (SCIF) for the handling of classified information.

Despite scholars not having an interest in classified information, the presence of such security measures is believed to inhibit a willingness to share even the most basic of information

regarding fusion center practices. As a result, data extraction for research purposes relies on a rapport between researchers and intelligence practitioners. Such an approach is commonplace in other aspects of policing where information is sensitive, such as policing cybercrime (Holt and Bossler, 2012), the mentally ill (Borum *et al.*, 1998) and sex workers (Simic *et al.*, 2006). The present research required a purposive sampling frame in order to accurately explore end-users of intelligence products from the fusion center.

The present study utilizes a sample of law enforcement agencies that subscribe to the fusion center's intelligence email listserv which distributes a daily intelligence bulletin. Information within this bulletin is divided into categories that include issues such as officer safety, current threats, be on the lookout (BOLOs), and emerging crime tactics and techniques. A sentiment exists among some fusion center employees that very few people read the bulletin on a daily basis. As a result of this sentiment, there has also been dissatisfaction among some individuals who work to create the intelligence product because they question the usefulness of their work. To date, there has been no systematic tracking of the intelligence product to determine the number of people who access or share this product within their agency. Thus, the fusion center was eager to understand more about its daily product and to receive information that would help it decide how to make it more useful for law-enforcement subscribers who seek to best utilize the information it contains.

While beneficial for purposes of reaching end-users, this listserv also created limitations for generalizability of the findings to be presented. Due to obvious security concerns, the researchers were not able to have access to the persons directly through the listserv and thus relied on fusion center personnel to disseminate the survey instrument. As a result, the researchers had no control over the sampling frame. Simultaneous to the survey instrument

being disseminated, the listserv being utilized for sampling was continuing to expand as part of a fusion center initiative to improve its reach to local law enforcement agencies. A web-based survey was disseminated to agencies on the fusion center listserv. At the time the survey was initially disseminated to end-users in March 2011, the listserv was comprised of 427 state, municipal, and tribal law enforcement agencies as well as public works, other government organizations (such as the Attorney General's Office), and members of the private sector. When the sampling period closed in May 2011, the listserv included 609 total organizations (from multiple contiguous states).

In total, 315 agency responses were received. Each response was unique to a single agency. Since multiple persons from a single agency are included on the fusion center's listserv, it was clearly communicated to the fusion center research partner managing the survey that any multiple responses from the same agency be identified. No multiple responses from the same agency were observed. A conservative response rate of 53 percent (315/609) is reported for this study. Given the fusion center's listserv is comprised of 85% state and local law enforcement agencies (as explained by the fusion center research partner managing the email dissemination) from urban areas and the proportion of state and local agencies within the responses received was 87% (and 67% urban), the findings are likely not influenced by non-response bias. However, since access to the listserv was restricted and no determinations could be made with regard to the characteristics of responding versus non-responding agencies, it cannot be said with certainty that non-responses bias is not a limitation to this research. In addition to the descriptive statistics to follow, respondents were provided open-ended opportunities within the survey to express levels of satisfaction or disappointment with the intelligence product bulletin.

Interviews with End-User Personnel

To better understand the interaction of end-user personnel with the intelligence product and the information reported in survey responses, interviews were conducted with the recipients to provide more depth and context to the survey results. Creswell (2008, p.4) characterizes this research approach as “a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem.” The intent of employing these interviews is not necessarily to arrive at an answer to a question, but rather to better understand the interviewee’s interpretation of phenomena through the lens of their practical experience (Seidman, 2006). Since state and local police departments represent the majority of the intelligence product listserv, and are arguably the most direct end-users of fusion center products, a random sample of 20 municipal police personnel who completed the survey were interviewed for this research. Though not truly a random sample as the sample population does not include agencies that did not respond to the survey, the randomization process is important to establish the absence of researcher bias in agency selection for interviews. The researchers attempted to conduct interviews with agencies that did not respond to the survey to gather more representative information. However the fusion center could not release contact information for agencies not consenting to be contacted via the survey. Respondents were asked to include their contact information if they were open to being contacted regarding their survey results; 112 persons provided their contact information. These 112 persons were then arranged alphabetically by last name and numbered from zero to 112.

A random number generator was then used to select 20 of these 112 persons. Of the 20 law enforcement personnel interviewed, six were chiefs of police or upper management, eight were middle management, and six were frontline supervisors or patrol officers. Each individual

was interviewed for a period of one hour using a semi-structured interview format to allow the interviewer to employ proper follow-up queries in accordance with the person's position within the department (i.e., Chief had different perspectives of intelligence than frontline officers). The insights provided by these personnel are critical to understanding under what circumstances police utilize intelligence products. Trends from the open-ended survey responses and interviews with personnel are included in the findings to provide contextual insights to the limited descriptive data. Nvivo software was utilized to organize and identify thematic constructs from the qualitative information gleaned from the interviews.

Findings

For ease of interpretation, this section is organized by separating the survey and interview findings across each key area. While such a discussion, specifically of interviewee insights, may arguably be more appropriate within the conclusions and discussion section, the information is provided here to contextualize the descriptive information. It should be noted that the findings presented are basic descriptives. Exploratory analyses were conducted by the researchers to provide additional insights from the data, such as variation by agency or personnel type. However, since no observable differences were identified and given space considerations for qualitative narrative, these analyses are not provided. A lack of variation was also observed across interviewees. The lack of differences by agency type is perhaps a welcomed diagnostic as intelligence practice (in theory) should not differ across varying agencies (Carter and Carter, 2009a; Ratcliffe, 2008). In addition, it would be interesting to examine these findings in parallel with crime. Differences in crime type and frequency could likely influence agency perceptions of intelligence products. Unfortunately, such an analysis was not possible due to the inability to

identify specific agencies (fusion center security concern) to link their responses with corresponding crime data.

Table 1 provides descriptives of agencies responding to the survey. The majority (61.9%) of respondents were local agencies while a quarter of the respondents (25.1%) were from a state organization and roughly eight percent worked for a federal entity. Only one percent was from a tribal organization and four percent of respondents worked in the private sector. There was an almost equal distribution of representation from upper-level management (33.6%), middle-level management (30.2%), and patrol (36.2%). Most of the respondents (67.6%) indicated that they worked in an urban setting.

[Table I approximately here]

Dissemination of the Intelligence Product - Survey

Survey items targeted how the intelligence product bulletin is received,¹ how it is made available to patrol, and, if e-mailed, to how many people it is forwarded. Table 2 illustrates the extent to which the intelligence product bulletin is disseminated. An overwhelmingly majority of respondents indicated they received the bulletin via e-mail (84.4%). Approximately 15 percent indicated they received the bulletin from the chief administrator of their organization (i.e., chief of police) while only one respondent indicated manually seeking the bulletin – likely through secured access of an electronic information sharing system such as the Regional Information Sharing System network (RISS.net). The primary audience for the intelligence

¹While the fusion center sends out an e-mail containing the product, we surmised that people could also receive the product as a forward from someone else. The intelligence product is also posted to RISSNET and could be downloaded.

product bulletin is the local law enforcement community; specifically patrol as they have the most day-to-day contact with the public. When asked how the information in the intelligence product bulletin is made available to those patrol officers and frontline personnel, the majority of respondents (63.1%) said it was made available by e-mail, followed by a much less frequency of those receiving the information during a meeting (19.8%) such as roll call, and just under five percent indicated the information was posted in a public place within the agency. A similar percentage of respondents indicated the information was made available through other methods. Of the respondents who chose to provide an open-response, a consistent theme emerged that information was made available to specific units within the department – such as gang or drug squads.

[Table II approximately here]

Important to the aspect of information availability is the possibility that information – in this case the intelligence product bulletin – is passed between members of an organization. Thus, more personnel within a department are likely receiving information beyond what is captured by recipients on a listserv. Through interviews with officers from local agencies, it was identified that in some departments the supervisor is the only person who receives the intelligence product at their respective agency. He or she will then forward it to an intelligence officer, patrol officers, or the entire frontline and middle management. Table 2 illustrates the extent to which respondents indicated the intelligence product bulletin is forwarded to others within the organization. Of those who responded, most indicated they forwarded the intelligence product to one-to-five other people within their organization on a regular basis (15.5%). A similar number of respondents indicated they regularly forwarded the bulletin to six-to-ten

(7.1%) and 11 to 50 people (8.5%). Less than three percent indicated they forwarded the bulletin to more than 51 people. Though the data do not allow for comparisons of these findings to respondents' agency size, these findings are likely related to agency size. For example, while a respondent may only forwarded the bulletin to six-to-ten other persons, this could possibly represent the majority or entirety of the respondent's organization. A consistent trend of the respondents who provided an open-response indicated they selectively forwarded the bulletin to others whom they feel it was relevant.

Dissemination of the Intelligence Product - Interviews

In-depth interviews with officers from different agencies revealed four important and interesting findings related to the dissemination of the intelligence product bulletin. First, a trend that emerged from the interviews was that many of the officers interviewed did not know how they initially started receiving the intelligence product bulletin e-mails. Many of the officers in middle-management positions or in patrol said they started receiving the intelligence product one day and surmised their chief had included their names on the list. Moreover, these officers indicated they did not know whether others within the department were on the distribution list, but believed their colleagues also received it as a result of being enlisted by someone else as well. One of the detectives interviewed acknowledged he was always under the assumption everyone in the agency received the bulletin until interviews for this study were conducted and he was surprised to discover this was not the case. Second, the extent to which one person within a department would take it upon him/herself to make patrol aware of the intelligence product bulletin. Many departments lacked sufficient staff to cull through intelligence and send out only what was relevant to patrol. A majority of the officers interviewed indicated they

printed out the bulletin, or specific parts of it, to distribute to patrol or display on a board where it would be noticed by patrol.

Third, select officers may not forward the intelligence product to others in their agency if they believe everyone is receiving it already. Regardless of department size, dissemination of the intelligence product varies and is fragmented for some agencies. One officer interviewed from an urban agency indicated the department had its own intelligence unit and integrated information from the intelligence product into its own bulletin. Another officer, also from an urban agency, indicated there was a lack information sharing and intelligence product distribution in his department. Moreover, this officer went on to acknowledge this problem exists even among the different patrol shifts as officers did not communicate important local intelligence gathered from the night before. The final trend among the officers interviewed was that not all officers had access to work e-mail; and those who did were not required to check it regularly. Thus, the only way for them to receive the information consistently was if someone within the department was tasked, or takes the initiative, to disseminate the information to patrol via another manner – such as roll-call or posting it within a common place.

Utilization of the Intelligence Product - Survey

Critical to exploring the utility of intelligence products is the extent to which different personnel within an agency use the intelligence provided. Responses to the item asking respondents to indicate who in their organization primarily uses intelligence were not mutually exclusive; respondents could indicate multiple types of personnel as there are likely to be multiple users and restricting responses to a single selection would not be representative of practice. Table 3 presents the findings of the intelligence-users item. Of those who responded,

most indicated investigative personnel primarily utilized the intelligence product bulletin (36%) followed by the notion that everyone in the organization utilized the bulletin (28.7%). Patrol (24.4%), middle management (23.6%), and senior officials (19.8%) were indicated to utilize the intelligence product similarly. A promising finding is that less than three percent indicated no one in the organization used the bulletin – thus hopefully reaffirming the overall utility of the intelligence product to the organizations to which it is distributed.

[Table III approximately here]

In an effort to explore the extent to which recipients of the intelligence product bulletin are reading the actual bulletin, respondents were asked to indicate the extent to which they read the bulletin attachment for further information as well as the last time they read the attachment closely. Beyond estimating the frequency of the actual bulletin being read, such measures also highlight the extent to which the bulletin appeals to the recipients. Table 3 further illustrates the extent to which the intelligence product bulletin is utilized by the recipients. The results are insightful. Of those who responded, 59.2 percent indicated they opened the attachment daily followed by 29 percent that indicated they read the attachment once or twice a week. Less than three percent of respondents indicated they read the intelligence product bulletin once a month or never.

Despite assurances that the survey was anonymous, survey respondents may have answered in what they perceived to be a socially desirable way and thus may have felt the need to overestimate how often they read the intelligence product bulletin. This bias was hopefully mitigated via the web-based survey format as evidence exists that people will answer in a less

socially desirable way when using an electronic survey (Kiesler and Sproull, 1986). In order to reaffirm these findings, a second question gauged respondents' frequency of reading the intelligence product bulletin within a past timeframe. These results are also presented in Table 3. Among the respondents, 50 percent acknowledged they read the intelligence product within the last day followed by 25 percent responding they had read it in the last three days, and 12.5 percent within the last week at the time of the survey. Less than two percent had not read the bulletin within the last month while 10.7 percent acknowledged they could not remember the last time they read the bulletin. The findings from these two items related to the frequency at which recipients read the intelligence product bulletin attachment were consistent with one another.

Utilization of the Intelligence Product – Interviews

In-depth interviews were conducted to provide further context to how patrol received the intelligence product bulletin. In some departments, the chief had decided that all personnel should regularly receive the bulletin; either by e-mail or during the roll-call meeting at the beginning of the shift. Though the information was made available to all personnel, there appeared to be no informal or formal mechanisms to motivate personnel to actually read the bulletin. In other departments, only detectives received the bulletin. Interviews with other officers indicated their agency practice was to print the bulletin and place it in the break room or in a binder with other notices for the patrol. This binder would typically contain “be-on-the-lookouts” (BOLOs) and other officer-safety notices.

Interviews with officers from different agencies provided context for why end-users of the intelligence product bulletin were motivated to open the attachment. Though respondents reported a variety of motives that prompted them to read the bulletin, consistent trends emerged.

One of the most frequent trends was that officers perceived reading the bulletin as a responsibility of their job. These officers said it was their due diligence to keep up with threats in order to piece together information and make better decisions. Another group of respondents stated they read the bulletin because it pertained to their area of patrol or an area very close to them. A smaller group of respondents said they read the bulletin because it sounded interesting or because they saw something included which they perceived to likely occur in their own jurisdiction.

In addition, the interviews helped reveal how frequently police personnel across different levels of the agency read the intelligence product bulletin. Upper-level management (i.e. chiefs, captains, and lieutenants) skimmed the intelligence product every day. Their knowledge of the agency and community seemed to facilitate the digestion of the information and identify information germane to their needs and concerns. Conversely, middle-management (i.e., detectives and sergeants) were less likely to read through the bulletin at all. Many of these officers acknowledged their tasks and responsibilities were relegated to issues outside of the intelligence product bulletin and those that the information “pertained most to” would read it when necessary and “keep them in the loop” with regards to pertinent information. These same officers indicated they would read the bulletin if they had extra time.

When asked what types of headline information made them read further, all of the interviewees mentioned issues regarding officer safety or cities and counties in their immediate vicinity. Many of the officers skipped information if was not about something in their area. For example, officers southern parts of the state scrolled down to the southern state section of the intelligence product bulletin to see if there were any crime patterns emerging in that area. One officer, however, did say he read about what was occurring in the northern part of the state

because he believed that crime patterns and trends that first occurred in that area would eventually be replicated in the southern part of the state. Interviewees also acknowledged they would read the information in the bulletin if the headlines corresponded to intelligence regarding soft targets in their own communities. For example, one police officer explained that, because his town has many highways and hotels, he looked for headlines that may offer insights about highways as targets or new tactics or techniques criminals are using involving transportation and trafficking.

Perceptions of Intelligence Product End-Users - Survey

In an attempt to gauge respondents' priorities related to the utility of the intelligence product, items were included to ask the sample which crimes were priorities to their agency as well as what bulletin frequency would be most useful. Responses to the crime priorities item were not mutual exclusive. Results for these two items are presented in Table 4. The majority of respondents (63%) indicated property crimes were a priority. Though this may seem somewhat surprising as violent crimes are widely recognized to be a higher priority than property crime, the item did not ask respondents to specific which single crime was the highest priority. Likely driving the frequency of property crime responses is a lack of violent crime among a number of respondents' jurisdictions. Property crimes are typically ubiquitous across jurisdictions whereas violent crime is more centrally located. Fifty-seven percent of respondents did acknowledge that violent crime was a priority, followed by public nuisance (42.3%), terrorism (36.2%), and white collar crime (41.5%). Of respondents who indicated "other" and chose to provide a response, many said the focus of their department was "all of the crimes" or "all of the above."

[Table IV approximately here]

Lastly, items were included to assess the importance respondents ascribed to the intelligence product bulletin and how it could be improved. These results are provided in Table 4. Respondents were asked to rate the information contained within the intelligence product bulletin on a polar scale from one to ten (1 = Not valuable at all, 10 = Extremely Valuable). The majority of respondents (80%) rated the intelligence product bulletin at six or higher. Assuming six would be the data cutoff point at which the intelligence product could be considered either valuable or not to the end-users (given that six and higher on the scale represents an affirmative response to valuable), 80% of respondents perceive the information included to be of value. The modal response was eight with nearly a quarter of the responses. Approximately 20 percent of respondents perceived the intelligence product to provide little or no value.

Perceptions of Intelligence Product End-Users - Interviews

During interviews with the police personnel, a common concern expressed by analysts was information overload – whether the fusion center was sending out too much information too frequently. Information overload can occur from receiving a manageable amount of information much too frequently or receiving an unmanageable amount of information at an acceptable frequency. Since quantifying the optimal amount of information desired by end-users is difficult, the present research conceptualizes information overload as receiving information too frequently. To explore this concern, respondents were asked what type of dissemination schedule would be most useful. Of those who responded, the same percentage indicated that a daily (38.6%) or weekly (38.6%) bulletin would be most useful. Approximately six percent felt

the schedule should be reduced to biweekly or monthly e-mails while nine percent indicated the bulletin should be disseminated only when a significant event occurred (such as the Boston Marathon Bombing or the Super Bowl). A common theme among the seven percent who responded “other” and provided a response was to receive the bulletin on a daily basis along with a supplement specific to a special event.

Interviews with police personnel reiterated findings portrayed by the survey results. Many officers appreciated the information, even if it was available on open-source websites. Interviewees said they did not always have time to read newspapers and could, therefore, go to the intelligence product bulletin to get the most accurate account of what had occurred nationally or internationally. Not every person interviewed agreed that all of the information in the intelligence product warranted inclusion. One analyst, in charge of collecting bulletins and then disseminating pertinent information to his department bi-weekly, stated he thought patrol officers would see any pertinent open-source material in the news; therefore, he believed there was no reason for the fusion center to include this information within intelligence reports. This perspective related to open-source information was reiterated by a number of personnel interviewed.

Perhaps the most consistent trend revealed during the interviews was that of a focus on officer safety as these were the tips that were believed to be the most important aspects and that many police officers read and passed on to others. The officers said that, while they sometimes saw the information in other places, safety was such a main concern that there was no harm in reinforcing the message. One police officer recounted how he had passed along information that proved to be useful regarding a new suicide technique involving a poisonous gas made from a detergent:

“They make a poisonous gas out of detergents, over the counter stuff. [The fusion center] put a product about that. Coincidentally two weeks later we were one of five incidents where someone tried to kill themselves that way. I had two officers go to the hospital but they were aware enough about it to get away from it a lot quicker so their exposure was a lot less. Things like that make it a lot more valuable to us. That wound up preventing a lot more injuries”.

Another officer offered a calculated reason for wanting geographic-specific information in the intelligence product:

For me, the county breakdown—if there was more detail in there ... it helps us, we’re always looking at that for patterns. It helps us to identify things so that we can form links. Even though scientifically, I can’t boil that down, I can say [to the fusion center] we have noticed that in this track flyer, you may not have reviewed yet or didn’t get because [police departments] only broadcast it to certain areas. We want to bring this to your attention. If we can get more detail in the top part of that report in the county, that would be very beneficial because there’s [some] things that are listed in there that we definitely take notice of because of the dynamics of our township and the geography of what we have going on here and if we had more detail, it’s just going to make us more aware. Since I know that we try to be very proactive in the intelligence front, collecting information, disseminating information that would be very beneficial to us to have that detail”.

This police officer, like many others interviewed, expressed a general view of the intelligence product as a method of informing their own intelligence. As one officer, who reads the bulletin regularly, pointed out, “Many police officers understand that it is generic information, but at least you can get a snapshot of what’s going on in the state.”

Discussion and Conclusions

The findings presented here, while exploratory, provide unique insights to practice as well as a new contribution to the literature on law enforcement intelligence and information sharing. Moreover, research in the field of law enforcement intelligence has documented the difficulty in obtaining data from fusion centers to guide such research (see Chermak *et al.*, 2013; Cooney *et al.*, 2011; Grapia-Joyal, 2010). In light of diminishing federal resources to fund

counter-terrorism initiatives, fusion centers have recently begun to come under scrutiny to substantiate their operations and effectiveness (Taylor and Russell, 2012; US Senate, 2012). Metrics of effectiveness and benchmarks for success related to information sharing are difficult to ascertain. Quantifying the degree to which local law enforcement find intelligence products useful or which products lead to arrests, prevented threats, increases in case correlations, or even terror suspects caught would all be welcomed – however they are largely outside the grasp of valid measurement. One metric that is not difficult to quantify is the volume of intelligence products created and distributed. In its most simple form, law enforcement recognized the need to share more information post-9/11. The best way to accomplish this is to create a large volume of information that is disseminated to other agencies. Within the law enforcement information-sharing community, the myth pervades that an increasing amount of information shared with others in the larger community is a sign of productivity and utility.

If the quantity and frequency of information dissemination is believed to be the desired end for the intelligence and information sharing process, the effectiveness of these efforts are likely to be undermined. Though scholars have conceptually emphasized the importance of quality versus quantity and frequency with regards to law enforcement intelligence (Carter and Carter, 2009a, 2009b; Chermak *et al*, 2013; Ratcliffe and Walden, 2010), the findings presented here are perhaps the first empirical exploration of this aspect of information sharing and fusion centers among end-users of intelligence products.

As a public entity formed to respond to the law-enforcement community, the fusion center must adhere to the requests of the agencies it serves in order to contribute to the public welfare. It is not enough to bring the different agencies together and provide evidence that they are collaborating. The fusion center must have something tangible to show for these efforts. By

demonstrating it is acting on the collective values of the public and informing the law-enforcement community of terrorism issues in the intelligence product, the fusion center is able to demonstrate its legitimacy and, therefore, its existence. By creating and disseminating the intelligence product bulletin, the fusion center strengthens public support and secures its survival – largely dependent on the misinformed notion that “more is better” with information sharing. One of the methods by which the fusion center demonstrates its utility to the Department of Homeland Security and its many partners is to disseminate a large quantity of information to a large distribution list. Beyond the raw numbers of this large distribution, it is important explore if the end-users who receive the information are the appropriate recipients and how they were chosen to be the end-users by their department.

End-users of intelligence products must see the application of the information to their jurisdictions, priorities, and interests. Thus, producers of intelligence – such as the fusion center and other fusion centers – must develop lines of communication that allow for consumers of their products to inform them on the types of information they desire and need. While the pragmatic reality is that fusion centers cannot tailor specific intelligence products to each law enforcement entity, they can attempt to be geographic-centric. Such an approach can inform end-users within the same geographic area (municipalities and counties) and likely increase effectiveness. In addition, this approach would enhance the philosophical concept of intelligence-led policing as it is most effective when utilized across jurisdiction boundaries among geographically contiguous agencies (Carter and Carter, 2009a). Chiefs and upper-management officials indicated they were more likely to scan through the entire bulletin because they feel they need to understand the crime environment in order to direct their patrol units – specifically looking for jurisdiction-relevant information. Inundating patrol with unnecessary information may cause them to ignore

the entire intelligence product. Beyond improving effectiveness of intelligence products, tailoring these products to end-users will also improve sustainability in the information sharing and fusion models. If intelligence products are perceived useful by end-users, they are more likely to continue to request the products to be sent to their agency. If the utility of the products is believed to be poor, the need for the products will decrease and the information sharing culture is likely to suffer.

The findings presented here lend insights as to the most “appropriate” recipient of intelligence products among agencies in the state. These persons are the decision-makers within each department who are able to identify and filter important information to patrol officers. Such an approach is consistent with theoretical models of information sharing (Carter and Carter, 2009a; Mackay and Ratcliffe, 2004). Within the specific organization presented in this research, the fusion center, efforts should be focused on the bulletin’s listserv. Findings indicated that more than 80 percent of respondents receive intelligence products via e-mail. Thus, communications via email are likely to yield the greatest impact for improving upon intelligence products and successful dissemination. Through interviews with fusion center personnel it was determined that as the list grew, the organization and management of the list was lost because no information was collected about the additional recipients. In addition, there seems to have been little rhyme or reason, outside of convenience and networks, to explain who was actually added to the list.

As noted in the findings, some of the intelligence product recipients did not forward the information to others in their department because they assumed others already received it. Other recipients did not read the intelligence product at all because they believed others in their agency had and would brief them on anything important should it be included in the bulletin. By

creating an improved listserv that targets the primary contact within agencies, the fusion center can likely facilitate the distribution of intelligence products to local agencies where it would then be more likely to reach the patrol level. After 9/11, the law-enforcement community realized the importance of information-sharing, especially with patrol. Anecdotally, many people have heard of instances where a tip from a vigilant citizen or patrol officer has led to a big break in a case. A patrol officer is more likely to provide information from the street if they believe it might be significant (Henry, 2002). With this in mind, it is incumbent upon the law enforcement intelligence community to provide patrol with the information they need to recognize instances with possible nexuses to crime and terrorism.

Implications for Security

Regardless of the jurisdiction or context in which it is applied, security and information sharing have a direct and likely causal relationship. Whether the security focus is research, policy, or practice, enhanced information sharing and the formal integration of intelligence and analysis into decision making will enhance or inform the desired outcome. At the most basic level, state and local law enforcement can utilize intelligence products to deliver an improved service to the community – which includes enhancing community security through reduced crime, disorder, and victimization. Securing the homeland was the catalyst for the inception of fusion centers. Legislatures, law enforcement, and emergency management personnel alike recognized the need to establish an information sharing infrastructure that would best serve the needs of all stakeholders. Perhaps most salient to improving security, fusion centers serve as the formal collaborative mechanism through which private sector organizations – and thus their personnel – are woven into the public law enforcement framework. Asset protection, counterfeit

product initiatives, and propriety information security are just a few examples of the unique functions private sector personnel offer law enforcement to enhance public safety. Such partnerships have allowed for a more strategic deployment of public safety resources.

A reliance on private sector collaboration for improved security is also identifiable in the contemporary emergence of real-time crime centers (many times operated in tandem with fusion centers). These real-time crime centers rely on vendors such as Microsoft, Motorola, and IBM to provide data analysis, real-time video, and communication functions. These centers have recently served critical roles in the carrying out of large-scale events such as the Super Bowl, Democratic National Convention, and Republican National Convention. Information shared and analyzed in real-time enabled law enforcement and private security to prevent and mitigate threats during these events.

Limitations and Future Research

Results presented here are tempered and should be interpreted conservatively. A pragmatic reality of applied research in the area of law enforcement intelligence is practitioner concern over security. This concern, while justifiable, limited the research design. Though the purposive sampling approach was necessary to access end-users of the fusion center, such a method limits generalizability of the findings. Information presented here is only representative of state and local agencies which are on the fusion center listserv, thus they most likely represent agencies which are most actively engaged in information sharing. The findings presented here are likely not representative of the average local agency in the state where the study took place as most local agencies are not on the fusion center listserv. However, the intent of this research was to specifically focus on end-users of a fusion center intelligence product and not on local agency

perceptions of the fusion center. As noted previously, since access to the listserv was restricted and no determinations could be made with regard to the characteristics of responding versus non-responding agencies, the possibility of non-response bias could not be omitted. Geographic region may also be influential with regard to information sharing. Since the 9/11 attacks occurred in the Northeast region, it is plausible that agencies and fusion centers in this region will be more progressive and committed to an information sharing philosophy as compared to agencies and fusion centers in regions of the United States that have never experienced a terrorism incident.

Future scientific inquiry into intelligence and fusion centers should consider a number of interesting phenomena. Controlling for geographic differences is an initial step for future research to consider. Scholars interested in further examining end-users of fusion centers should attempt to incorporate variation in fusion center models. Most fusion centers follow an “all threat, all crimes, all hazards” concept while a couple are strictly focused on terrorism due to their funding mandate (such as the Southern Nevada Counter-Terrorism Center) and some focus on “all crimes” to best guide state and local agencies in their combat of street crimes that constitute the largest proportion of their time and resources. One would expect local agencies to be more connected to, and reliant on, an “all crimes” center as compared to a terrorism center. It would also be beneficial for future scholars to examine information being pushed (a phrase used by Ratcliffe, (2008) in his 3-I model of intelligence-led policing) to fusion centers from outside agencies and organizations. Fusion centers rely on raw information inputs to create analyzed intelligence outputs. In theory, local law enforcement serves as the force-multiplier for fusion centers to collect information from the communities. Very little is known about this aspect of information sharing. Sheptycki (2004) identifies this specific issue with information sharing in

that information pushed to centers from local police is typically inhibited by a number of organizational differences and incompatibilities across human and technological components. Information push is an equally important part of the intelligence-sharing equation and thus without examining the degree to which information is being shared with fusion centers, the understanding of perceptions of the utility of intelligence products will remain limited.

In addition, scholars should examine the dynamics between local police satisfaction with information disseminated by fusion centers and fusion center satisfaction with information provided by the local police. It is plausible that the quality of intelligence products created by fusion centers are a function of the quality of information provided to them from local agencies. This is especially important with respect to jurisdiction-specific products that focus on trends, new methods of crime, officer safety issues and so on. Lastly, given the United Kingdom's longer history with intelligence and policing as compared to the United States, an additional avenue of future research would be to compile comparative studies on the UK National Crime Authority regional information sharing model (based largely on the established National Intelligence Model). This same approach can be employed with the Canadian experience with Criminal Intelligence Service Canada Provincial Bureau model. Both the United Kingdom and Canada have best practices for information sharing that could be gleaned and applied to agencies in the United States.

References

- Bayley, D.H. and Weisburd, D. (2009) Cops and spooks: The role of the police in counterterrorism. In D Weisburd, T Feucht, I Hakimi, L Mock and S Perry (Eds) *To protect and to serve: Police and policing in an age of terrorism - and beyond*. New York: Springer, pp. 81-99.
- Boba, R. (2009) Evil Done. In G Newman and R Clarke (Eds) *Reducing Terrorism Through Situational Crime Prevention*. Crime prevention studies series. Monsey: Criminal Justice Press, pp. 71-92.
- Borum, R., Deane, M.W., Steadman, H.J. and Morrissey, J. (1998) Police perspectives on responding to mentally ill people in crisis: Perceptions of program effectiveness. *Behavioral Sciences and the Law* 16(4): 393-405.
- Carter, D.L. (2009) *Law enforcement intelligence: A guide for state, local, and tribal law enforcement agencies* (2nd ed) Washington: US Department of Justice.
- Carter, D.L. and Carter, J.G. (2009a) Intelligence-led policing: Conceptual considerations for public policy. *Criminal Justice Policy Review* 20(3): 310-325.
- Carter, D.L. and Carter, J.G. (2009b) The intelligence fusion process for state, local and tribal law enforcement. *Criminal Justice and Behavior* 36(12): 1323-1339.
- Carter, J.G. (2014) Inter-organizational relationships and law enforcement information sharing post-September 11, 2001. *Journal of Crime and Justice*. Advanced online publication. DOI: 10.1080/0735648X.2014.927786.
- Carter, J.G. and Chermak, S. (2012) Evidence-Based Intelligence Practices: Examining the Role of Fusion Centers as a Critical Source of Information. In C Lum and L Kennedy (Eds) *Evidence-Based Counterterrorism Policy*, New York: Springer, pp. 65-88.
- Carter, J.G. and Phillips, S.W. (2013) Intelligence-led policing and forces of organizational change in the United States. *Policing and Society*. Epub ahead of print 6 December 2013. DOI:10.1080/10439463.2013.865738.
- Chermak, S., Carter, J.G., Carter, D.L., McGarrell, E. and Drew, J. (2013) Law enforcement's information sharing infrastructure: A national assessment. *Police Quarterly* 16(2): 211-244.
- Clarke, R.V. and Newman, G. (2006) *Outsmarting the terrorists*. Portsmouth: Greenwood Publishing Group.
- Cooney, M., Rojek, J., and Kaminski, R.J. (2011) An assessment of the utility of a state fusion center by law enforcement executives and personnel. *IALEIA Journal* 20(1): 1-18.
- Cope, N. (2004) Intelligence led policing or policing led intelligence? Integrating volume crime analysis into policing. *British Journal of Criminology* 44: 188-203.
- Creswell, J.W. (2008) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks: Sage.
- General Accounting Office. (2003) *Efforts to Improve Information Sharing Need to be Strengthened*. Washington DC.
- Global Intelligence Working Group. (2005) *Guidelines for Establishing and Operating Fusion Centers at the Local, State, Tribal and Federal Level*. Washington: US Department of Homeland Security.
- Global Intelligence Working Group. (2008) *Baseline capabilities for state and major urban area fusion centers*. Washington: US Department of Homeland Security.

- Gottschalk, P., Holgersson, S. and Karlsen, J. (2009) How knowledge organizations work: The case of detectives. *Learning Organization* 16(2): 88-102.
- Graphia-Joyal, R. (2010) Are fusion centers achieving their intended purposes? Findings from a qualitative study on the internal efficacy of state fusion centers. *IALEIA Journal* 19(1): 54-76.
- Henry, V.E. (2002) The need for a coordinated and strategic local police approach to terrorism: A practitioner's perspective. *Police Practice and Research* 3(4): 319-336.
- Holt, T.J. and Bossler, A.M. (2012) Police perceptions of computer crimes in two southeastern cities: An examination from the viewpoint of patrol officers. *American Journal of Criminal Justice* 7(3): 396-412.
- Homeland Security Council. (2007) *National Strategy for Homeland Security*. Washington: Office of Homeland Security.
- Innes, M., Fielding, N. and Cope, N. (2005) The appliance of science: The theory and practice of crime intelligence analysis. *British Journal of Criminology* 45(1): 39-57.
- Johnson, B. and Dorn, S. (2008) Fusion centers: New York state intelligence strategy unifies law enforcement. *The Police Chief* 75(2): 38.
- Kiesler, S. and Sproull, L. (1986) Response effects in the electronic survey. *Public Opinion Quarterly* 50(3): 402-413.
- Mackay, D. and Ratcliffe, J.H. (2004) Intelligence products and their dissemination. In JH Ratcliffe (Ed) *Strategic Thinking in Criminal Intelligence*. Sydney: The Federation Press, pp. 148-162.
- Masse, T., O'Neil, S. and Rollins, J. (2007) *Fusion centers: Issues and options for Congress*. Washington, DC: Congressional Research Service.
- Newman, G. and Clarke, R. (2008) *Policing Terrorism: An Executive's Guide*. Washington DC: Office of Community Oriented Policing Services.
- Peterson, M. (2005) *Intelligence-led policing: The new intelligence architecture*. Washington DC: US Department of Justice, Office of Justice Programs.
- Ratcliffe, J.H. (2008) *Intelligence-Led Policing*. Cullompton: Willan Publishing.
- Ratcliffe, J.H. and Walden, K. (2010) State police and the fusion center: A study of intelligence flow to and from the street. *IALEIA Journal* 19(1): 1-19.
- Ratcliffe, J.H., Strang, S.J. and Taylor, R.B. (2014) Assessing the success factors of organized crime groups: Intelligence challenges for strategic thinking. *Policing: An International Journal of Police Strategies and Management* 37(1): 206-227.
- Rollins, J. (2008) *Fusion Centers: Issues and Options for Congress*. Washington, DC: Congressional Research Service.
- Seidman, I. (2006) *Interviewing As Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College Press.
- Sheptycki, J. (2004) Organizational pathologies in police intelligence systems: Some contributions to the lexicon of intelligence-led policing. *European Journal of Criminology* 1(3): 307-332.
- Simic, M., Johnston, L.G., Platt, L., Baros, S., Andjelkovic, V., Novotny, T. and Rhodes, T. (2006) Exploring barriers to 'respondent driven sampling' in sex worker and drug-injecting sex worker populations in Eastern Europe. *Journal of Urban Health* 83(6): 6-15.
- Taylor, R. and Russell, A. (2012) The failure of police 'fusion' centers and the concept of a national intelligence sharing plan. *Police Practice and Research* 13(2): 184-200.

- U.S. Department of Homeland Security. (2008) *National Response Framework*. Washington, DC.
- U.S. House of Representatives. (2013) *Majority Staff Report on the National Network of Fusion Centers*. Committee on Homeland Security. Washington: US House of Representatives.
- U.S. Senate. (2012) *Federal Support for and Involvement in State and Local Fusion Centers*. Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs. Washington: US Senate.

Tables

Table I. Descriptive statistics for survey respondents ($n = 315$)

	Percent (n)
Type of organization	
Federal	7.9% (25)
State	25.1% (79)
Local	61.9% (195)
Tribal	1% (3)
Private	4.1% (13)
Level within organization	
Upper-level	33.6% (106)
Mid-level	30.2% (95)
Frontline	36.2% (114)
Setting of department	
Urban	67.6% (213)
Rural	32.4% (102)

Table II. Intelligence Product Dissemination

	Percent (n)
How do you receive the intelligence product? ($n = 270$)	
Personal/work e-mail	84.4% (228)
From the chief/head of your organization	15.2% (41)
Look-up manually	.004% (1)
How is intelligence made available to frontline personnel? ($n = 268$)	
E-mail	63.1% (169)
Meeting	19.8% (53)
Posting	4.9% (13)
Other	4.5% (12)
Not available	78.4% (21)
To how many people in your organization do you regularly forward the intelligence product e-mail? ($n = 271$)	
1-5 people	15.5% (42)
6-10 people	7.1% (20)
11-50 people	8.5% (23)
51 or more people	2.6% (7)

Table III. Intelligence Product Utilization

	Percent (<i>n</i>)
Who in your organization primarily uses intelligence in the intelligence product? (<i>n</i> = 258)	
Investigative personnel	36.0% (93)
Everyone	28.7% (74)
Patrol	24.4% (63)
Middle management	23.6% (61)
Senior officials	19.8% (51)
No one	2.3% (6)
Other	5.0% (13)
How often do you open the intelligence product attachment to read more about a topic? (<i>n</i> = 272)	
Daily	59.2% (161)
1-2 times a week	29.4% (80)
Once a month	2.9% (8)
Never	2.2% (6)
Other	6.3% (17)
When was the last time you read the intelligence product attachment closely? (<i>n</i> = 271)	
Within the last day	50.0% (136)
Within the last 3 days	25.0% (68)
Within the last week	12.5% (34)
Within the last month	1.8% (5)
Cannot remember	10.7% (29)

Table IV. Perceptions of Intelligence Product Recipients

	Percent (n)
What types of crimes are priorities in your department? (n = 246)	
Property	63.0% (155)
Violent	57.3% (141)
Public nuisance	42.3% (104)
Terrorism	36.2% (89)
White collar	26.8% (66)
Other	41.5% (102)
How would you rate the intelligence product on a scale of one to ten?* (n = 260)	
8 to 10	33.8% (88)
6 to 7	46.2% (120)
3 to 5	14.2% (37)
2 and less	5.8% (15)
What frequency of intelligence products would be most useful? (n = 259)	
Daily	38.6% (100)
Weekly	38.6% (100)
Bi-weekly	3.5% (9)
Monthly	2.7% (7)
Significant event	9.3% (24)
Other	7.3% (19)

*1 = Not valuable at all, 10 = Extremely valuable

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