



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**FACTORS IMPACTING INTRA-DISTRICT
COLLABORATION: A FIELD STUDY IN A MIDWEST
POLICE DEPARTMENT**

by

Amanda L. Kulikowski

March 2018

Co-Advisors:

Gail Fann Thomas
Kimberlie Stephens

Approved for public release. Distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE March 2018		3. REPORT TYPE AND DATES COVERED Master's thesis
4. TITLE AND SUBTITLE FACTORS IMPACTING INTRA-DISTRICT COLLABORATION: A FIELD STUDY IN A MIDWEST POLICE DEPARTMENT			5. FUNDING NUMBERS	
6. AUTHOR(S) Amanda L. Kulikowski				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB number NPS.2017.0073-IR-EP7-A.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) This study focuses on factors that impact police officers' intra- and inter-district information-sharing patterns. Forty participants completed a survey that identified their communication patterns. Additionally, individual conflict-handling styles were assessed to determine their relationship to information-sharing practices and networks. Finally, nine semi-structured interviews were conducted with patrol officers and detectives to identify additional factors that might explain information-sharing patterns in the department. A social network analysis was conducted with the quantitative data, and the qualitative data were analyzed by thematic coding. The study revealed that an individual's conflict-handling style (whether it is competing, accommodating, avoiding, compromising, or collaborating) is related to his or her information-sharing habits. The collaborating style yielded a considerably higher number of ego-alter links; the accommodating and competing styles yielded a considerably lower number of ego-alter links. The study demonstrates strong within-role information sharing; officers communicated more with other officers than they did with detectives, and detectives communicated more with other detectives. Likewise, intra-district information sharing was low, while inter-district sharing was high. The interviews revealed several enablers of information sharing: common goals/teamwork, trust, and positive information flow. Barriers included ego, physical barriers, workload, and negative information flow.				
14. SUBJECT TERMS collaboration, conflict, information sharing, communication, police			15. NUMBER OF PAGES 109	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release. Distribution is unlimited.

**FACTORS IMPACTING INTRA-DISTRICT COLLABORATION:
A FIELD STUDY IN A MIDWEST POLICE DEPARTMENT**

Amanda L. Kulikowski
Sergeant, Novi Police Department, Novi, Michigan
B.S., Eastern Michigan University, 2002

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
March 2018**

Approved by: Gail Fann Thomas
Co-Advisor

Kimberlie Stephens
Co-Advisor

Erik Dahl
Associate Chair for Instruction
Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

This study focuses on factors that impact police officers' intra- and inter-district information-sharing patterns. Forty participants completed a survey that identified their communication patterns. Additionally, individual conflict-handling styles were assessed to determine their relationship to information-sharing practices and networks. Finally, nine semi-structured interviews were conducted with patrol officers and detectives to identify additional factors that might explain information-sharing patterns in the department. A social network analysis was conducted with the quantitative data, and the qualitative data were analyzed by thematic coding. The study revealed that an individual's conflict-handling style (whether it is competing, accommodating, avoiding, compromising, or collaborating) is related to his or her information-sharing habits. The collaborating style yielded a considerably higher number of ego-alter links; the accommodating and competing styles yielded a considerably lower number of ego-alter links. The study demonstrates strong within-role information sharing; officers communicated more with other officers than they did with detectives, and detectives communicated more with other detectives. Likewise, intra-district information sharing was low, while inter-district sharing was high. The interviews revealed several enablers of information sharing: common goals/teamwork, trust, and positive information flow. Barriers included ego, physical barriers, workload, and negative information flow.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	PROBLEM STATEMENT	1
1.	Importance of Intra-district Collaboration	1
2.	Causes and Consequences of Ineffective Intra-district Collaboration.....	3
B.	RESEARCH QUESTIONS	3
C.	PURPOSE AND METHOD OF STUDY	4
D.	CONTRIBUTIONS AND SCOPE.....	4
E.	ORGANIZATION OF THE STUDY	5
II.	BACKGROUND AND RESEARCH SETTING	7
A.	NOVI POLICE ORGANIZATION AND WORK ASSIGNMENTS	7
B.	CRIMINAL PROCESS.....	11
C.	SUMMARY	14
III.	LITERATURE REVIEW	15
A.	INFORMATION SHARING	15
B.	INTERDEPENDENCE	17
C.	SOCIAL NETWORK THEORY.....	18
D.	COLLABORATION AND CONFLICT-HANDLING STYLES	20
E.	SUMMARY	23
IV.	RESEARCH METHOD	25
A.	QUANTITATIVE SURVEY METHOD.....	25
1.	Survey Participants.....	25
2.	Survey Development	26
3.	Survey Administration	29
4.	Survey Analysis	29
B.	QUALITATIVE INTERVIEW METHOD	30
1.	Interview Protocol and Administration	31
2.	Analysis of Qualitative Data	32
C.	SUMMARY	34
V.	QUANTITATIVE SURVEY RESULTS.....	35
A.	PARTICIPANT DEMOGRAPHICS	35
B.	SOCIAL NETWORK.....	36
C.	CONFLICT-HANDLING MODES	41

D.	RELATIONSHIP BETWEEN CONFLICT-HANDLING MODES AND INFORMATION-SHARING PATTERNS	50
E.	SUMMARY	51
VI.	QUALITATIVE INTERVIEW RESULTS	53
A.	ENABLERS OF COLLABORATION	53
1.	Common Goals/Teamwork	53
2.	Trust	54
3.	Positive Information Flows	54
B.	BARRIERS TO COLLABORATION	55
1.	Ego	56
2.	Physical Barriers	56
3.	Work Overload	57
4.	Negative Information Flows	57
C.	SUMMARY	60
VII.	DISCUSSION	61
A.	STRUCTURAL ISSUES IMPACTING INFORMATION SHARING	61
B.	CONFLICT-HANDLING MODES	63
C.	RELATIONSHIP BETWEEN CONFLICT-HANDLING STYLE AND INFORMATION SHARING	65
D.	LIMITATIONS OF THE STUDY	66
E.	FUTURE RESEARCH	67
VIII.	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	69
A.	SUMMARY	69
B.	CONCLUSIONS	71
C.	RECOMMENDATIONS	72
APPENDIX A. RECRUITMENT SCRIPT FOR SURVEY		75
APPENDIX B. RECRUITMENT SCRIPT FOR SEMI-STRUCTURED INTERVIEWS		77
APPENDIX C. QUANTITATIVE SURVEY		79
LIST OF REFERENCES		87
INITIAL DISTRIBUTION LIST		91

LIST OF FIGURES

Figure 1.	Novi Police Department Organizational Chart	8
Figure 2.	City of Novi Police Districts	10
Figure 3.	Criminal Process	12
Figure 4.	Three Types of Interdependence	17
Figure 5.	Thomas–Kilmann Conflict Mode Instrument	21
Figure 6.	Ego Network of Aaron (Pseudonym)	29
Figure 7.	Respondent #024 Social Network	37
Figure 8.	Intra- and Inter-district and Role Communication: Average by % Ego-Alter Linkages	38

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

Table 1.	Pseudonym Names Pull-Down Example	27
Table 2.	Interview Theme Analysis	33
Table 3.	Study Participant Demographics.....	35
Table 4.	Intra-district Crime Communication.....	36
Table 5.	Communication within and between Districts (by Percentage).....	40
Table 6.	Communication within and between Roles (Average by Percentage).....	41
Table 7.	Conflict-Handling Mode Percentiles for Novi Police Department.....	42
Table 8.	TKI Results by District (Percentage of Personnel High, Medium, Low).....	45
Table 9.	TKI Results by Role (Percentage of Personnel High, Medium, Low)	48
Table 10.	Conflict-Handling Styles and Ego-Alter Average Linkages	50

THIS PAGE INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

Collaborative practices among patrol officers, detectives, and administrators in police departments enhance crime solving through better information sharing. When information sharing is collaborative, the department is more likely to consider a problem from multiple viewpoints, which generally results in better decision making.¹ The purpose of this study was to investigate the factors that influence intra- and inter-district information-sharing patterns among police department members.

A. METHODS

The methods used in this study were both quantitative and qualitative. Forty police department participants completed an online survey—a 67 percent response rate. The survey asked participants to identify those with whom they shared information about crime solving over a six-month period. Participants were also asked to complete a conflict-handling style instrument for the purpose of identifying the relationship between individual style and information-sharing habits.

Qualitative methods included nine semi-structured telephonic interviews of police department members. The purpose of the interviews was to provide an insider perspective about police officers' and detectives' information-sharing patterns. The researcher compiled all the interviews and did a close reading of the transcripts to find common themes. The themes were then used to describe enablers and barriers to collaboration in the police department.

B. CONCLUSIONS

Overwhelmingly, police department members agreed that information sharing is very important. Results showed that inter-district information sharing was more prevalent than intra-district sharing. Additionally, differences according to role—among patrol officers and detectives—revealed that information sharing is more frequent within roles

¹ Hsinchun Chen et al., “COPLINK Connect: Information and Knowledge Management for Law Enforcement,” *Decision Support Systems* 34, no. 3 (2003): 289–290.

than between roles. In other words, detectives are more likely to talk to detectives and patrol officers tend to communicate more often with other patrol officers.

The study identified positive and negative factors that influence information sharing. Among the enablers are common goals, teamwork, trust, and positive information flows. Barriers to information handling include ego, physical proximity, workload, and negative information flow.

The collaborative conflict-handling style was the lowest mode used among all police department personnel. Compromising and accommodating were the most frequent modes used. Conflict-handling styles were found to impact information sharing at the police department, particularly with police officers and detectives. Individual conflict styles, evaluated within the police department network by social network analysis, showed more ego-alter linkages indicative of higher levels of communication within the police department, whereas compromising and accommodating were shown to have lower ego-alter linkages with lower levels of communication within the police department.

C. RECOMMENDATIONS

As catastrophic events such as school shootings, civil unrest, and weather emergencies become more regular, police collaboration has never been more important. Practicing collaboration daily on a small scale can help police departments be proficient in these areas far before a large-scale incident requires it.

This thesis provides four recommendations: 1) create policy and procedure to support collaboration, 2) develop a forum for a collaborative environment in the police department, 3) embrace collaborative changes at the leadership level, and 4) design and implement innovative technology platforms for sharing information within the police department. By sharing street experiences, cases, and patterns of crime, police departments create learning opportunities that may allow them to solve more crimes.

ACKNOWLEDGMENTS

I would like to thank the Naval Postgraduate School's Center for Homeland Defense and Security for affording me the opportunity to gain further insight into the field of homeland security. To my fellow classmates and instructors: I am humbled to sit next to you each day among the depth of knowledge, experience, and innovation you all possess. You constantly pushed me to higher levels of professionalism.

A thank-you goes to my thesis advisors, Dr. Gail Fann Thomas and Dr. Kimberlie Stephens, for your guidance, wisdom, and support throughout this experience—and for all the meetings, phone calls, texts, and emails to help me along the way. Both of you pushed me out of my comfort zone and showed me what I could achieve with focus and perseverance. You've made such a positive impact on my confidence and my academic experience. Thank you to my research assistant, Sally Baho, for conducting the interviews I needed to complete my thesis, and for your kind personality.

Thanks also go to the city of Novi and the Novi Police Department for giving me the opportunity to attend the Naval Postgraduate School. A specific thank-you to Director of Public Safety/Chief of Police David E. Molloy for your leadership and unwavering support of my career, especially throughout my last eighteen months in this graduate program. Thank you to my police family, and to the officers, detectives, and administrators who participated in my research and helped me accomplish my goals. Additionally, my partner, Sergeant Mark Boody, shouldered the responsibility when I was out of state pursuing my degree, demonstrating his constant support and positivity: thank you. I am truly fortunate to be surrounded by some of the best police professionals in the nation.

And thank you to my friends and family for the encouragement and understanding over the last eighteen months. Jan, Denise, and Lisa, thank you for your continued friendship and patience. Holly, Kim, and Chip, thank you for all the impactful life lessons, and for setting the bar high. Mom: thank you for teaching me to never settle for less than my best, and for being caring and supportive throughout my life. Dad: thank you for teaching me the value of hard work and that, "if you are going to do it, do it right."

The impact that you all have had on me cannot be put into words. I am profoundly blessed.

I. INTRODUCTION

A. PROBLEM STATEMENT

The President's Task Force for 21st Century Policing highlights the importance of fostering strong, collaborative relationships between local law enforcement and the communities it protects.¹ To improve these relationships, it requires effective intra-district collaborative relationships among police officers, police detectives, and other police department employees. Unfortunately, the intra-district relationships between patrol officers and detectives in many police departments are strained for a number of reasons, such as cultural issues, poor communication, proximity, and competition among various district members.² To better understand intra-district collaboration within police departments, this study focuses on intra-district and intra-departmental information-sharing patterns and the factors that impact the information-sharing habits among organizational members.

1. Importance of Intra-district Collaboration

When patrol officers and detectives work well together to prevent and solve crimes, patrol officers learn more about the criminal investigative process. Similarly, detectives learn from patrol officers—about their beats, their sources of information, the members of their community, and the offenders that operate there. Luen and Al-Hawamdeh described these benefits in research on the Singapore Police, finding that accurate knowledge and information sharing are critical to the success of police organizations.³ Collaborative practices increase goal compatibility within and among police districts.

Collaboration occurs when members all work together to focus on a common goal. In a police department setting, this is critical for solving crime and maintaining general

¹ Sean Michael Smoot, "The President's Task Force on 21st Century Policing: Procedural Justice, Policing, and Public Health," *Southern Illinois University Law Journal* 40 (2016): 427–561.

² Eugene A. Paoline, "Taking Stock: Toward a Richer Understanding of Police Culture," *Journal of Criminal Justice* 31, no. 3 (2003): 199–214.

³ Tan Woei Luen and Suliman Al-Hawamdeh, "Knowledge Management in the Public Sector: Principles and Practices in Police Work," *Journal of Information Science* 27, no. 5 (2001): 313.

public confidence. A crime has many components, from general considerations to specific details, and often one detail may contain the lead that is needed to solve the crime. For example, a police detective working a case discovers via closed-circuit television that a potential suspect in a theft was wearing bright blue athletic shoes. When a police officer hears this from the detective, he recalls the bright blue athletic shoes from a previous complaint; armed with the detective's information, the officer is able to locate and interview the suspect, and obtain a confession for the crime. Research suggests that these collaborative efforts increase the possibility that the one missing detail will be shared among patrol officers and police detectives.⁴ This effort leads to better and more efficient outcomes. These outcomes are also affected by how information is communicated within a police department.

When communicating collaboratively, officers also share observations beyond the scope of a police report to help detectives understand the entire incident. Likewise, detectives often share information with patrol officers after follow-up is conducted—such as suspect descriptions, crime trends with locations and time frames, and vehicle information. These interdependent activities create a sense of teamwork, which results in openness and reflects a common goal: to solve crime.⁵ The previous case example demonstrates how two-way information sharing results in high-level communication and produces valuable insights to help solve crime; the bright blue shoes meant nothing to the detective, but they meant everything to the officer. The officer did not have the closed-circuit television footage and the detective did not have the knowledge about the bright blue shoes. These two pieces of information in a one-way, or linear, communication pattern would have resulted in two disparate clues. In a two-way communication pattern, however, the clues were connected and the crime was solved. Accordingly, intra-organizational collaboration between police officers and detectives has been found to improve department performance.⁶

⁴ Hsinchun Chen et al., "COPLINK Connect: Information and Knowledge Management for Law Enforcement," *Decision Support Systems* 34, no. 3 (2003): 279.

⁵ Chen et al., 289–290.

⁶ Edward A. Thibault et al., *Proactive Police Management*, 9th ed. (London: Pearson, 2015), 85.

2. Causes and Consequences of Ineffective Intra-district Collaboration

Poor intra-district collaboration is common within police departments.⁷ Like many other organizational units, police districts can suffer from tensions caused by different tasks, roles, time constraints, lack of trust, status differences, group norms, and individual style differences.⁸ Leadership, organizational culture, and physical proximity can also negatively influence intra-district collaboration. If district members are highly collaborative, they will focus on the task and coordinate their efforts in a fashion that fosters problem solving. If they do not work in a collaborative manner, they may work competitively, which means members are less cooperative, they only work within their roles, and they may hoard information or duplicate efforts, making their work less effective.⁹ Ultimately, ineffective working relationships within a police department diminish the primary mission: the pursuit of justice.¹⁰

B. RESEARCH QUESTIONS

This study was conducted with one primary and several secondary questions in mind. The primary research question focuses on the overarching mission, while the secondary questions focus on a set of analyses.

Primary Research Question:

- What factors influence intra-district information sharing?

Secondary Research Questions:

- How do information-sharing patterns differ by district and by role?
- How do individual conflict-handling styles differ by district and by role?

⁷ Thibault et al., 156–158.

⁸ P.J. Ortmeier and Edwin Meese III, *Leadership, Ethics, and Policing: Challenges for the 21st Century*, 2nd ed. (Upper Saddle River, NJ: Prentice Hall, 2010), 133–157.

⁹ R. Wayne Pace and Don F. Faules, *Organizational Communication*, 2nd ed. (Upper Saddle River, NJ: Prentice Hall, 1989).

¹⁰ P.J. Ortmeier, *Policing the Community: A Guide for Patrol Operations* (Indianapolis, IN: Merrill, 2002).

- What is the relationship between individual conflict-handling styles and information sharing?
- What additional factors influence information-sharing patterns?

C. PURPOSE AND METHOD OF STUDY

The purpose of this study was to investigate the working relationships between police detectives, patrol officers, and administration in a Midwest police department. The purpose was to determine the information-sharing patterns within each district and identify the factors that best account for the various patterns.

Both a survey and interviews were used to gather data, and a social network analysis was used to identify the information-sharing patterns within the department, districts, and roles. Each study participant also completed a conflict-handling styles instrument to determine his or her individual style: collaborating, competing, avoiding, compromising, or accommodating. The purpose of the style instrument was to determine if the individual conflict-handling style showed a relationship to information-sharing patterns. Last, a subset of officers and detectives participated in one-on-one telephone interviews to discuss the specific enablers and barriers to collaboration within their districts.

D. CONTRIBUTIONS AND SCOPE

Because of time constraints, this study was limited to one mid-size police department in a midwestern suburban area in the United States. Its population is approximately 60,000.¹¹

Results of this study will be presented to the police department leadership; the researcher hopes the findings can be used to build upon the department's strengths and make improvements in collaborative efforts for future performance gains. The findings from this study might also be useful for other police departments that wish to foster intra-agency collaboration through improvements in intra-district collaboration. However,

¹¹ Sheryl Walsh, "2010 Census Shows City of Novi with a 16.5% Population Increase," City of Novi, March 24, 2011, <http://cityofnovi.org/Novi/Government/PressReleases/2011/110324Census.asp>.

because the study only focuses on one agency, results may not be generalizable to other U.S. police departments.

E. ORGANIZATION OF THE STUDY

Chapter II of this thesis presents the background for and setting of the study. It includes the police organizational chart and district mapping and discusses district demographics, including the types of crimes in each district, to familiarize the reader with common practices. Chapter III reviews the literature that was used as a foundation for the data analysis. Chapter IV illustrates the research design, measures, and methodology used to conduct the study, describing both the quantitative (surveys) and qualitative (interviews) methods used to examine differences in information-sharing patterns at the police department. Chapter V shares the quantitative survey results and network analysis, inferring the relationships between and among work groups at the police department. Chapter VI shares the qualitative analysis from the semi-structured interviews. The results examine common themes related to the barriers and enablers of communication patterns. Chapter VII delves into related discussion, including the implications for the district and the job roles within the police department. This chapter also considers the study's limitations. Chapter VIII provides the conclusion and recommendations.

THIS PAGE INTENTIONALLY LEFT BLANK

II. BACKGROUND AND RESEARCH SETTING

This study was conducted at the Novi Police Department, which is located in southeastern Michigan approximately thirty-two miles west of Detroit, Michigan; Novi has approximately 60,000 residents. This chapter provides detailed information about the formal organization of the police department, the roles and responsibilities of the departmental members, and the criminal process.

A. NOVI POLICE ORGANIZATION AND WORK ASSIGNMENTS

The Novi Police Department has 107 total employees: 85 full-time and 22 part-time employees. The police department employs 65 sworn officers—officers who are certified through the Michigan Commission on Law Enforcement Standards. The certification licenses the individual as a law enforcement officer in the state of Michigan, and is an employment requirement in the police organization.¹²

The police department has a hierarchical structure based on rank. The ranks, shown in Figure 1, include patrol officer, detective, sergeant, lieutenant, assistant chief, and chief. The thirty-nine patrol officers make up the operational function of the organization and are split into two sides—A-side and B-side—based on scheduling and the shift-bidding process. The assigned shifts for patrol are based on a twelve-hour workday and a rotating schedule for patrol in which officers work seven days every two weeks. The eleven detectives comprise the support services for operations in the organization and are responsible for investigations and follow-up. The detectives generally work an eight-hour day, five days a week. The next level is sergeant; the Novi Police Department’s ten sergeants are mid-level managers who are present in both the operations and support services sections. Following this level are two lieutenants, responsible for each division of patrol, and then the administrative level: two assistant chiefs, one in charge of patrol and one investigations. The sole director of public safety/chief of police leads the organization.

¹² “Licensing Standards for Michigan Law Enforcement Officers,” Michigan Commission on Law Enforcement Standards, January 2, 2017, http://www.michigan.gov/documents/mcoles/Standards_List-1-17_web_579092_7.pdf.

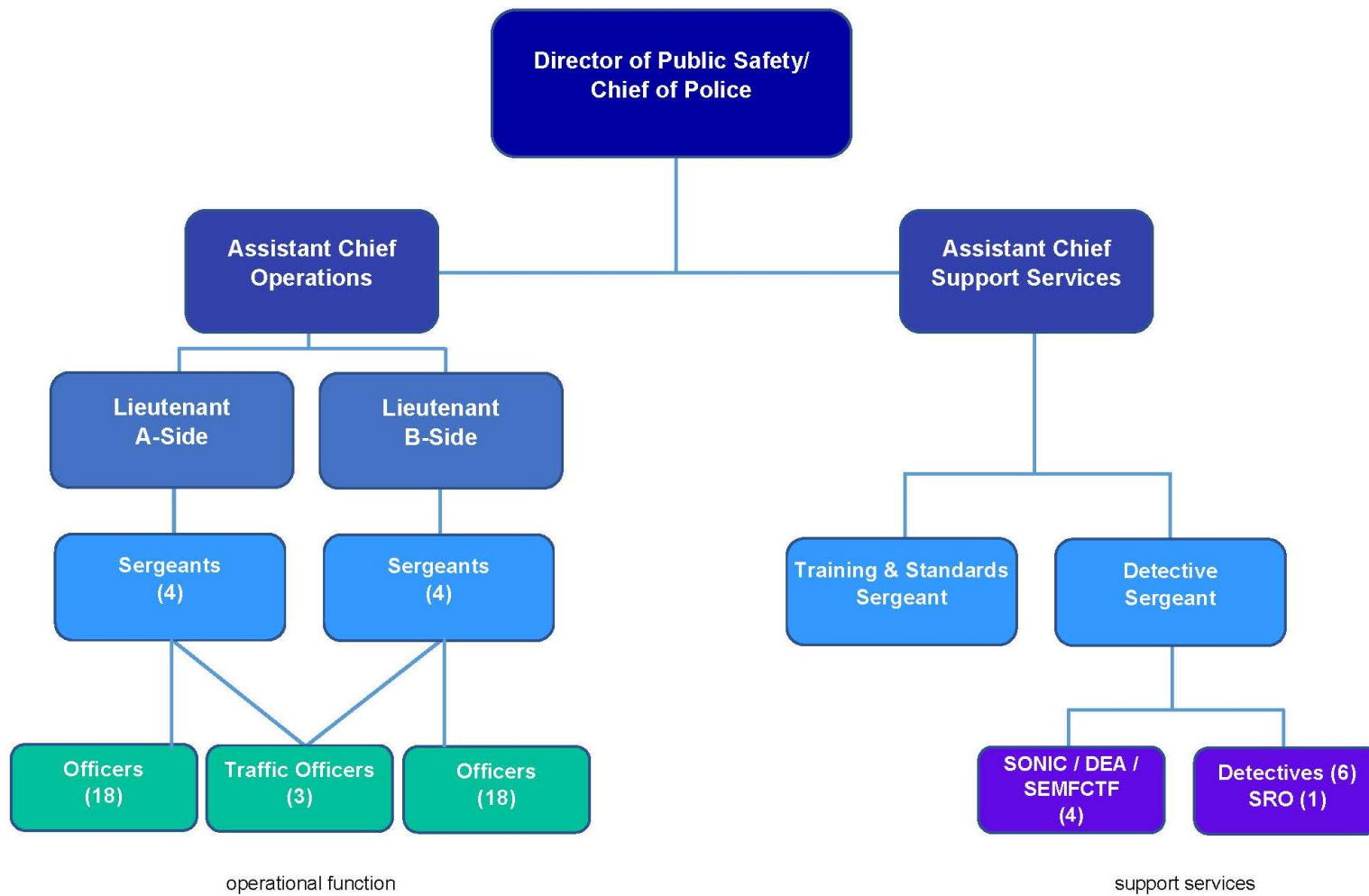


Figure 1. Novi Police Department Organizational Chart¹⁴

¹⁴ Adapted from Novi Police Department, *Novi Police Department Organizational Chart*, Directive 200 (Novi, MI: Novi Police Department, 2016).

The police department is responsible for patrolling the city of Novi; the city's total area of 31 square miles is distributed into four districts: District 1, District 2, District 3, and District 4. Within those districts are patrol areas. Figure 2 shows the districts broken down by patrol areas. District 1, located in the northern sections of the city, covers approximately 9.54 square miles that are broken down into two-patrol areas known as District 10-northwest and District 11-northeast. District 2 is located in the west section of the city; its approximately 14.14 square miles are further broken down into two patrol areas known as District 20-north and District 21-south. District 3 is located in the southeast corner of the city, over approximately 6.13 square miles, and has two-patrol areas: 30-north and 31-south. District 4, approximately 1.57 square miles, is located in the center of the city and covers mostly retail space; it is the largest retail district in Oakland County.

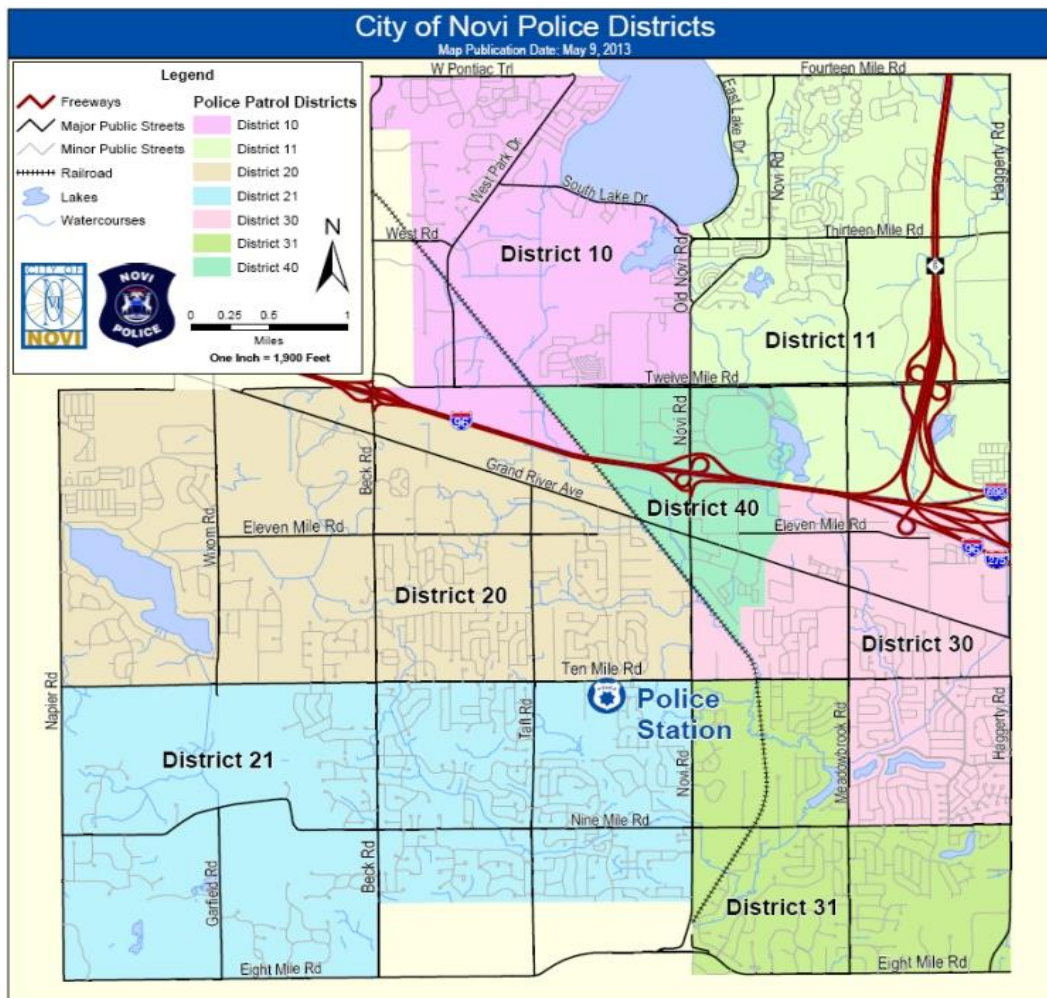


Figure 2. City of Novi Police Districts¹

Districts 1, 2, and 3 are considered mostly residential. Typical crimes in these districts include automobile larceny, malicious destruction of property, and domestic assault. The most frequently reported crimes in District 4, the retail district, are fraudulent activities such as shoplifting and credit card fraud. The districts are generally staffed by nine to ten police officers and each district also has an assigned detective and two assigned district sergeants. Officers and sergeants bid on the police districts every six months; bids are based on seniority in the collective bargaining unit. The detectives are often assigned to a district for more than six months. During a six-month assignment, district patrol

¹ Source: "City of Novi Police Districts," City of Novi, May 9, 2013, <http://www.cityofnovi.org/Government/City-Services/Public-Safety/Police/Administration/Police-Districts-Map.aspx>.

sergeants, detectives, and officers work to alleviate crime within the district. Some concerns are specifically addressed through community-oriented policing projects for each district, which range from traffic complaints and general problems identified by community members to specific crimes (e.g., stolen vehicles, destruction of property, etc.)

Although officers and detectives are assigned to particular districts, if calls for service or cases are overwhelming, an officer or detective assigned to another district may step in to help. When this happens, there is a possibility that district-specific information may not get passed along, or the new helper may not understand the importance of specific information. Intra-district communication issues also arise due to A-side and B-side sharing the same district in the police department; the communication process breaks down between officers in the same district because they are unable to communicate face to face.² Similarly, shift work can sometimes stifle communication; officers who work the day shift have only limited interaction with night-shift officers between shift changes. District communications are not only affected by the district characteristics and composition, but also by other processes within the department.

B. CRIMINAL PROCESS

The criminal process also affects information sharing. Communication is hindered by the differing goals between work units, the steps involved in the process, and the varying investigative techniques used to obtain information throughout the criminal process, from the initial crime reporting to trial. The graphic in Figure 3 depicts common steps in the local and state criminal process.

² Lung-Teng Hu, “Same Bed, but Different Dreams? Comparing Retired and Incumbent Police Officers’ Perceptions of Lost Knowledge and Transfer Mechanisms,” *Crime, Law and Social Change* 53, no. 4 (2010): 429–432.



Figure 3. Criminal Process³

The first step of the criminal process involves a police officer responding to a request for service at a reported location. The officer arrives on the scene and begins to gather facts and circumstances about the complaint. This process is often referred to as the initial investigation, and it is generally conducted by the initial responding officer. The role of the officer is to provide scene security and safety while taking the initial report.⁴ depending on the severity of the reported crime, detectives may be called to the initial scene. After the police officer investigates the complaint, he or she decides whether to make an arrest based on probable cause or to file a case report. During this process, the police officer's goals may differ from the detective's goals. Officers take several calls for

³ Adapted from "Steps in a Criminal Case," Prosecuting Attorneys Association of Michigan, accessed January 22, 2018, <https://www.michiganprosecutor.org/index.php/steps-in-a-criminal-case>.

⁴ Thibault et al., *Proactive Police Management*, 158.

service each day, and each officer's goal is to complete a thorough investigation and report in order to move on to the next call for service.⁵

Once the case report is filed, the case is assigned to a detective, who reviews the report and prepares the case to be submitted to the prosecutor for warrant review. During this step, detectives may conduct follow-up work to complete the investigation. The follow-up may involve interviews, search warrants, and subpoenas needed to collect additional evidence. The detective's goal is to gather evidence that will lead to the defendant's successful prosecution and conviction.⁶

Next, the detective usually presents the case to the prosecutor for review to determine if charges will be issued. Generally, the prosecutor then issues a warrant for the suspect. From time to time, a prosecutor may ask the detective to provide further information or conduct additional investigation. After this, the detective swears to the warrant in front of the judge/magistrate, who authorizes the warrant. Once the warrant is authorized, a police officer or detective may attempt to make an arrest; once the suspect is under arrest, courts require arraignment or formal reading of the charges without unnecessary delay, and this is generally completed within 48 hours.⁷ The arraignment is usually completed by the detective in charge of the case or an assigned detective responsible for court activities. At the arraignment, the bond and bond conditions may be set by a judge/magistrate and the next court date is assigned, starting the trial process.

Due to their differing goals, the criminal process can create rifts between patrol officers and detectives. As mentioned, a patrol officer must handle multiple calls for service each day; the officer's goal is to clear a call in order to handle the next one. This can create the impression, for detectives, that the patrol officer is being lazy and not conducting a thorough investigation. On the flip side, patrol officers may feel that their

⁵ Thibault et al., 158.

⁶ Thibault et al., 176–185.

⁷ “Rule 6.104 Arraignment on the Warrant or Complaint,” Michigan Court Rules, accessed January 22, 2018, http://courts.mi.gov/Courts/MichiganSupremeCourt/rules/Documents/HTML/CRs/Ch%206/Court%20Rules%20Book%20Ch%206-Responsive%20HTML5/index.html#t=Court_Rules_Book_Ch_6%2FCourt_Rules_Chapter_6%2FCourt_Rules_Chapter_6.htm; County of Riverside v. McLaughlin, 500 U.S.C. 44 (1991), No. 89-1817.

work is not appreciated—that they are being “Monday morning quarterbacked”—creating resentment between officers and detectives.⁸ The detectives have a longer-term goal, prosecution, which often requires additional time, additional information gathering, and specialized skills.⁹ When detectives do not give the additional information they acquire to officers, it creates a disconnect in communication between the divisions. Without common goals throughout the different stages of the criminal process, patrol officers and detectives become divided and frustrated.¹⁰

C. SUMMARY

This chapter provided background information about the police department and reviewed elements of the criminal process that create informal barriers to information sharing within the department. While the criminal process can create disparity between police officers and detectives, some of the challenges associated with intra-district information sharing can also be attributed to organizational norms.¹¹ Chapter III provides foundational concepts from the extant literature that help explain the intra-district and departmental information-sharing patterns at the Novi Police Department.

⁸ Thibault et al., *Proactive Police Management*, 20.

⁹ Thibault et al., 176–185.

¹⁰ Dean Tjso vold, “Cooperative and Competitive Dynamics within and between Organizational Units,” *Human Relations* 41, no. 6 (1988): 432–433.

¹¹ Paoline, “Taking Stock,” 204–206.

III. LITERATURE REVIEW

This chapter summarizes the literature related to this study, which includes sources that review information sharing, task interdependence, social networks, and collaborative styles. Collectively, these information sources provide the foundation for the data collection, analysis, and findings presented in subsequent chapters.

A. INFORMATION SHARING

The collaborative practice of sharing information in police departments has been shown to impact crime rates. For example, when prosecutors and police teamed up to investigate criminal gang members in Manhattan, they were able to drop from 70 murders during the year prior to the effort, to 39 murders during the year following the collaborative activity.¹² The information process—or how information is conveyed and shared in a police department—can be the difference between crime reduction or rising crime rates.

As the Manhattan example shows, information flow—the way an organization communicates with its employees—can affect information sharing either positively or negatively, depending on the circumstances. Positive information flows enable the sender and receiver to understand the information in an efficient and effective way.¹³ With negative information flows, there is a disconnect between the sender and receiver that results in misinterpretation of objectives; negative information flows inhibit understanding, efficiency, and relationships in an organization.¹⁴ Moye and Langfred assert, “Information sharing refers generally to communication with other team members related to coordination activities, task details, task progress, and reasoning for task decisions.”¹⁵ When team

¹² James C. McKinley Jr., “In Unusual Collaboration Police and Prosecutors Team Up to Reduce Crime,” *New York Times*, June 4, 2014, <https://www.nytimes.com/2014/06/05/nyregion/in-unusually-close-partnership-police-dept-and-district-attorney-team-up-to-reduce-crime.html>.

¹³ Paula Badjor and Iwona Grabara, “The Role of Information System Flows in Fulfilling Customers’ Individual Orders,” *Journal of Studies in Social Sciences* 7, no. 2 (2014): 96–99.

¹⁴ Janna Raye, “Fractal Organisation Theory,” *Journal of Organisational Transformation & Social Change* 11, no. 1 (2014): 52–57.

¹⁵ Neta A. Moye and Claus W. Langfred, “Information Sharing and Group Conflict: Going beyond Decision Making to Understand the Effects of Information Sharing on Group Performance,” *International Journal of Conflict Management* 15, no. 4 (2004): 384, <https://doi.org/10.1108/eb022919>.

members share information, they expose different and contrasting viewpoints, as well as disparate pieces of a larger whole, that are vital to coordination efforts and effective decision making. It is important, at times, to determine if the communication mechanisms that are in place are achieving the organization's goals.

Information within organizations is not always shared. Stasser and Stewart studied information sharing in a group setting, and their findings suggest that group discussion often fails to recognize unshared information.¹⁶ They refer to this phenomenon as "hidden profiles." Imagine, for instance, trying to develop a suspect description with only two or three characteristics about the suspect; you may find the suspect eventually, but without all the information, you are likely to arrest a suspect far less efficiently. Discovering hidden profiles in an organization is important, especially because the full picture may not be uncovered in a group setting if information sharing is not carefully emphasized.

Police officers and police detectives share information based on knowledge of a particular area, sometimes referred to as "street smarts," and the unique skillsets they acquire through police training. In their study on familiarity and information sharing, Gruenfeld et al. attempted to have a group of students who all knew each other through an MBA class weed out a hypothetical murder suspect among them.¹⁷ Familiarity, they concluded, can build trust and allow someone in a group setting to become more vulnerable, making that person more willing to listen to divergent viewpoints regarding shared pieces of conflicting information. Familiarity and trust may allow a group to find the missing pieces of information (the "hidden profiles") that will lead to successful crime solving in the police department.

¹⁶ Garold Stasser and Dennis Stewart, "Discovery of Hidden Profiles by Decision-Making Groups: Solving a Problem versus Making a Judgment," *Journal of Personality and Social Psychology* 63, no. 3 (1992): 426–434.

¹⁷ Deborah H. Gruenfeld et al., "Group Composition and Decision Making: How Member Familiarity and Information Distribution Affect Process and Performance," *Organizational Behavior and Human Decision Processes*, 67, no. 1 (1996): 1–15.

B. INTERDEPENDENCE

We must often rely on the help of others to accomplish a goal or task. Interdependence refers to this quality of relying on others for information, resources, or materials to accomplish a task.¹⁸ As shown in Figure 4, there are three types of interdependence as suggested by Richard Daft: pooled, sequential, and reciprocal.

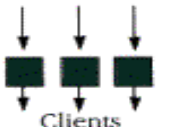
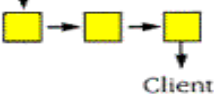
Form of Interdependence	Demands on Communication, Decision-Making Across Units	Type of Coordination Required	Priority for Locating Units Close Together
Pooled (Bank)  Clients Sequential (assembly line)  Client Reciprocal (hospital)  Client	Low Communication Medium Communication High Communication	Standardization, Rules, Procedures Plans, Schedules, Feedback Mutual Adjustment, Unscheduled Meetings	Low Medium High

Figure 4. Three Types of Interdependence¹⁹

Pooled interdependence, according to Daft, shows a low level of communication; for this type of interdependence, it is a low priority to have units located close together to complete a task. Separate parts contribute individually to the organization's standardized goal, coming together under the same established policy and procedures. For example, this type of interdependence can be seen at a McDonald's restaurant, where the employees all

¹⁸ Richard Daft, *Organization Theory and Design*, 11th ed. (Mason, OH: Cengage Learning, 2012), 287.

¹⁹ Source: Daft, 288.

have different tasks toward achieving the same goal: serving the customer.²⁰ *Sequential interdependence*, per Daft, shows the need for medium levels of communication to complete tasks. Each task is completed separately, but relies on another person's contribution, such as an auto team building a vehicle. Sequential interdependence is generally linear, involving one-way communication, but requires more coordination due to one department's reliance on another department to accomplish the task. Daft's third type of interdependence, *reciprocal interdependence*, refers to a high-level, high-functioning structure within an organization that uses planning, coordination, and feedback loops to achieve its goals.²¹ This type of interdependence requires a high communication level and mutual coordination among members within groups to achieve the task. The communication pattern in this type of interdependence is generally circular, to encourage openness. This is an important factor when considering how a police department solves cases. A police department that practices reciprocal interdependence could come together or collaborate to solve crimes for a more holistic response to the task.

Reciprocal interdependence has shown value for internal organization structures. Daft explains that interdependence within an organization fosters coordination, teamwork, and communication.²² Marjan also believes there is value in teamwork that inspires learning, and outcomes are better when they are achieved through collaboration.²³ This interdependence research demonstrates the value of working in collaborative groups, which can result in better organizational outcomes.

C. SOCIAL NETWORK THEORY

Information sharing among organizational members can also be studied using social networks. Social network analysis studies what people do and how they do it from a process or structural perspective. Social network data allows a researcher to focus on

²⁰ Daft.

²¹ Daft.

²² Daft.

²³ Laal Marjan, "Positive Interdependence in Learning," *Procedia Social and Behavioral Sciences* 93 (October 2013): 1433–1477, <https://doi.org/10.1016/j.sbspro.2013.10.058>.

actors' relations instead of the more traditional focus on their attributes.²⁴ Knocke and Yang argue that “structural relations are often more important for understanding observed behaviors than are such attributes as age, gender, values, and ideology.”²⁵ Focusing on how relations are viewed can help form conclusions about the way a network shares information.

McLeod and Burt studied how divergent thinking in communities can foster social connections in areas of creativity and innovation.²⁶ Using social network theory, they examined social ties, looking for connections or structural holes that create disconnects within communities. This study of social networks can help explain the interpersonal relationships that make up a social network by illuminating how individuals' interactions all relate to each another. This type of analysis can help an organization identify key individuals within the larger structure who may help the organization accomplish its goals, such as collaboration.

Some critics of social network analysis argue that organizations that give awards and incentives based on social interaction could experience too much socializing, which might waste time and negatively affect productivity in the workplace.²⁷ To allay this concern, collaboration—rather than the act of socializing—should be incentivized. Another argument against social network analysis, however, has to do with the collection of sensitive data that is gathered about an organization's employees.²⁸ Sensitive data and privacy concerns often come up in the workplace; if an organization is implementing social network analysis, it should consider who has access to private information, how it will be

²⁴ Robert A. Hanneman and Mark Riddle, *Introduction to Social Network Methods* (Riverside: University of California Riverside, 2005), 3, <http://faculty.ucr.edu/~hanneman/>.

²⁵ David Knocke and Song Yang, *Social Network Analysis Quantitative Applications in the Social Sciences* (Thousand Oaks, CA: SAGE, 2008), 8.

²⁶ Katherine Giuffe, “How Do Communities Foster Creativity and Innovation,” in *Communities and Networks: Using Social Network Analysis to Rethink Urban and Community Studies*, 176–195 (Malden, MA: Polity Press, 2013).

²⁷ John R. Hollenback and Bradley B. Jamieson, “Human Capital, Social Capital, and Social Network Analysis: Implications for Strategic Human Resource Management,” *Academy of Management Perspectives* 29, no. 3 (2015): 370–385.

²⁸ Hollenback and Jamieson.

used, and whether or not there is harm in making the results of the analysis transparent to the participating employees.

D. COLLABORATION AND CONFLICT-HANDLING STYLES

Individuals bring different communication styles to their work. While collaboration and effective information sharing is important for good decision making, it is inevitable that differences in opinion will occur within groups. In the literature, these differences are often referred to as conflict.²⁹ Conflict can show up in tasks, in processes, and between individuals. Task conflict refers to differing ideas or opinions about substantive issues. Process conflict is a disagreement about timing, roles, responsibilities, or how tasks will be done. Relationship conflict refers to incompatible feelings or emotions, or clashes, that arise due to interpersonal issues. The literature shows that interpersonal and process conflict can lead to dysfunctional group interaction, while a moderate amount of task conflict can lead to more effective group functioning.³⁰ As it relates to this thesis, it might be advantageous for street police and detectives to share differing perspectives as a means for better crime solving.

According to Thomas and Kilmann, individuals have varying conflict-handling styles, or methods for dealing with other people who have different opinions than their own.³¹ It is likely that the various styles impact the way individuals share information with one another.³² Thomas and Kilmann describe five styles of conflict handling: competing, accommodating, avoiding, compromising, and collaborating (see Figure 5).³³

²⁹ Ralph H. Kilmann and Kenneth W. Thomas, "Developing a Forced-Choice Measure of Conflict-Handling Behavior: The 'MODE' Instrument," *Educational and Psychological Measurement* 37, no. 2 (1977): 309–325.

³⁰ M. Afzalur Rahim, *Managing Conflict in Organizations* (New Brunswick, NY: Transaction Publishers, 2015), 28.

³¹ Kenneth W. Thomas and Ralph H. Kilmann, *Thomas–Kilmann Conflict Mode Instrument: Profile and Interpretive Report* (Sunnyvale, CA: CPP, 2008), 1–11.

³² Thomas and Kilmann, 1–11.

³³ Daft, *Organization Theory and Design*, 288.

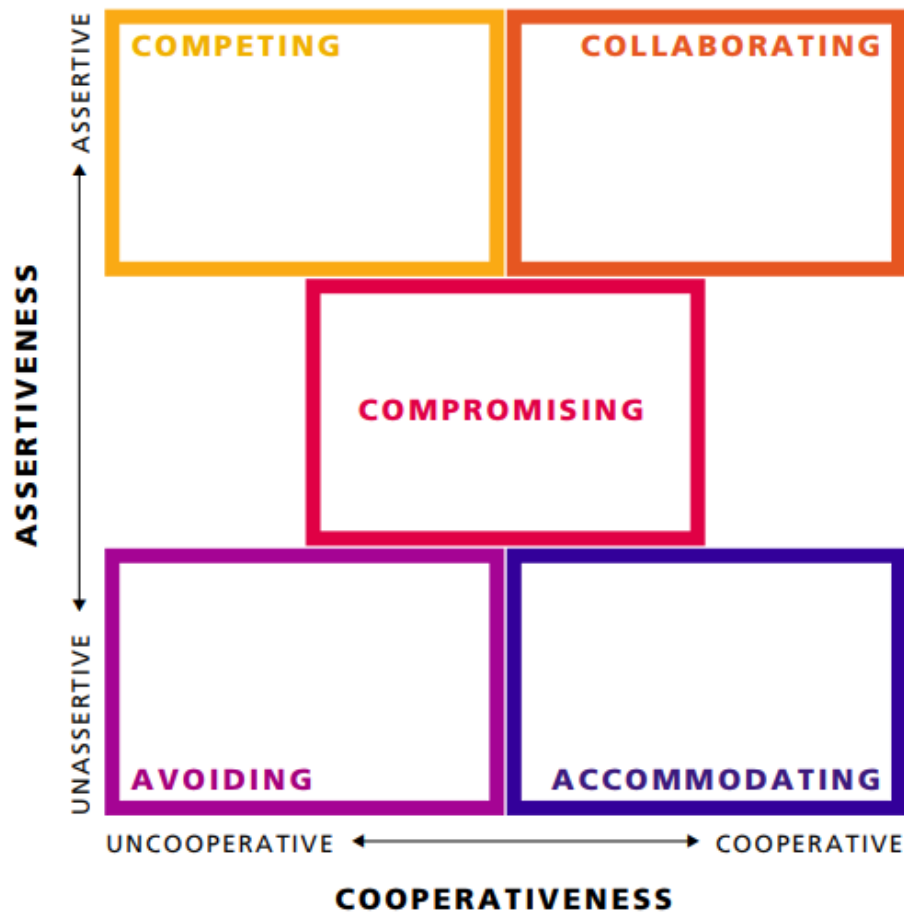


Figure 5. Thomas–Kilmann Conflict Mode Instrument³⁴

Competing styles of conflict show a high level of assertiveness and a low level of cooperation. Generally, those who have a competing conflict style believe their own position is the correct one, and wish to push others toward it. This style leads to a win–lose scenario in which one person is dominating.³⁵ Tactical situations—such as emergencies—that call for critical decision making often utilize this handling style positively. In group situations, however, this style limits openness to other points of view. *Accommodating* styles of conflict indicate a low level of assertiveness and a higher level of cooperativeness.

³⁴ Source: Thomas and Kilmann, *Conflict Mode Instrument*, 2.

³⁵ Rahim, *Managing Conflict in Organizations*, 28.

Accommodating styles can be useful when conflict is high and the group needs balance, but may cause an individual to repress his or her feelings about an issue in order to please others, making it difficult to share ideas.³⁶ *Avoiding styles* are associated with a low level of assertiveness and cooperativeness. Those who prescribe to the avoiding style do not even want to acknowledge that there is conflict. This style “has been associated with withdrawal, buck-passing, sidestepping, or ‘see no evil, hear no evil, speak no evil’ situations.”³⁷ While this style can be useful in volatile situations when conflict gets to a boiling point and a cooling-off period is needed, but a person who uses this style may be viewed as uncaring or not invested in the group.³⁸ *Compromising styles* show a mid-level assertiveness and cooperativeness. This style may be useful when two parties are trying to come to an agreement, such as during labor and contract negotiations.³⁹ However, the style may cause decision making to lack depth; it is more concerned with coming to an agreement than deep analysis of the issues that led to the conflict. *Collaborative styles* show a high level of assertiveness and cooperativeness. This type of conflict handling has two main tenets: being honest about the problem and confronting the problem in order to solve it.⁴⁰ Although critics of the style state that it takes too much time and may not work in all situations, collaboration allows everyone in the group to weigh in on the issues and come together to solve problems, which in turn makes everyone invested in the outcome.

There are positive and negative aspects of each conflict-handling approach. Identifying the conflict-handling approaches that the individuals within an organization use may allow the organization to work toward a more collaborative and inclusive approach. Laal’s research suggests that a collaborative approach is most effective when handling complex problems.⁴¹ However, specific studies about approaches to conflict and collaboration at the intra-agency level in police departments are lacking.

³⁶ Rahim, 28.

³⁷ Rahim, 28.

³⁸ Rahim, 28.

³⁹ Rahim, 28.

⁴⁰ Rahim, 27.

⁴¹ Marjan, “Positive Interdependence in Learning,” 476.

Although police departments have been studied academically, but not regarding conflict handling on the established areas of patrol. Conflict handling has also not been considered as it relates to collaboration and information sharing among and between specifically defined department roles, such as police detectives, patrol officers, and administrators. Sun and Payne did study conflicts between leadership roles, different races, and different genders in police department, but these studies focus on individual traits and characteristics; they do not address how those individual traits may affect intra-organizational collaboration.⁴²

E. SUMMARY

This chapter examined literature related to information sharing, interdependence, social networks, collaboration, and conflict handling. Research suggests that bridging relationships among and between groups creates and stimulates critical thinking, information sharing, and collaboration.⁴³ The literature indicates that reciprocal interdependence among work groups, and having two-way communication patterns, benefits the organization. Most studies in the past have focused on individuals in an organization and how their actions impact the organization. This study, however, examines how those individuals' communication patterns and relationships can inform better organization practices. The next chapter discusses how the relationship and communication patterns were measured during data collection and analysis for this thesis.

⁴² Ivan Y. Sun "A Comparison of Police Field Training Officers' and Nontraining Officers' Conflict Resolution Styles: Controlling Versus Supportive Strategies," *Police Quarterly* 6, no. 1 (2003): 22–50; Ivan Y. Sun and Brian K. Payne, "Racial Differences in Resolving Conflicts: A Comparison between Black and White Police Officers," *Crime & Delinquency* 50, no. 4 (2004): 516–541; Neil Brewer, Patricia Mitchell, and Nathan Weber, "Gender Role, Organizational Status, and Conflict Management Styles," *International Journal of Conflict Management* 13, no. 1 (2002): 78–94.

⁴³ Stasser and Stewart, "Hidden Profiles," 426–434.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. RESEARCH METHOD

This study examines the information-sharing patterns within the Novi Police Department and the factors that impact those patterns. The purpose of this chapter is to describe the methods that were used to gather and analyze the data. This study includes both quantitative and qualitative components to address these research questions:

Primary Research Question:

- What factors influence intra-district information sharing?

Secondary Research Questions:

- How do information-sharing patterns differ by district and by role?
- How do individual conflict-handling styles differ by district and by role?
- What is the relationship between individual conflict-handling styles and information sharing?
- What additional factors influence information-sharing patterns?

A. QUANTITATIVE SURVEY METHOD

A survey was used to measure the information-sharing patterns within and among the four Novi Police districts. This same survey also measured individual differences in terms of the study participants' tendency to use a collaborative approach. This section details the development of the survey, the people who volunteered to take the survey, and the administration of the instrument.

1. Survey Participants

The participants were sworn members of the Novi Police Department. The department has sixty-five sworn members, who range in rank from police officers, police detectives, police sergeants, and police administrators. Thirty-nine police officers accounted for the majority (60 percent) of the research population: eleven police detectives (17 percent), followed by ten police sergeants (15 percent) and five police administrators

(8 percent). Including perspectives from all sworn members, across rank, in the research allowed for the entire organization's information-sharing patterns to be assessed. A total of forty Novi personnel volunteered to take the survey—a 67 percent response rate. Volunteers included thirty-three police officers, four detectives, and three administrators.

2. Survey Development

Part I of the survey included seven questions that were used to measure information exchange about crime. The first question measured the frequency of face-to-face communication within the participants' assigned district:

1. Since the beginning of your last shift bid (April 2017), approximately how many times have you communicated with a detective or officer about crimes occurring in your assigned district?
 - 0–10 times
 - 11–20 times
 - 21–30 times
 - Over 30 times

Questions 2–4 gathered data that were used to conduct the social network analysis, which measured the exchange of information among the specific personnel within the Novi Police Department. Question 2 asked:

2. In the last month, with whom have you had face-to-face discussion regarding crimes in your district?

Participants were given the list of the 65 personnel within the Novi Police Department, and used a pull-down function to identify their information exchanges. An example, with pseudonyms, is shown in Table 1.

Table 1. Pseudonym Names Pull-Down Example

Check all that apply	
Aaron	Sam
Brow	Scout
Cause	Titus
Commons	Tutor
Denise	Union
Hedger	Wharton

Question 3 included the same pull-down menu and asked:

3. In the last month, to whom have you sent a specific email inside the department about crimes or intelligence within your district?

Question 4, with another pull-down menu of the department personnel, asked:

4. In the last month, from whom have you received a specific email inside the department about crimes or intelligence within your district?

Questions 5–7 follow:

5. How often do you read the intelligence/investigative bulletins distributed?
 - Always
 - Sometimes
 - Never
6. Do you find the intelligence/investigative bulletins useful?
 - Yes
 - No

Explain:

7. Do you view the COMPSTAT PowerPoint on the television screen or email if you are not at the COMPSTAT meeting?
 - Yes
 - No

The purpose of Part II of the survey was to identify the conflict-handling (or collaborative) style for each of the participants. To gather this data, the Thomas–Kilmann Conflict Mode Instrument (TKI) was used. The TKI diagnosed the way that a police officer handles conflict, which is related to interaction patterns. The instrument consists of thirty pairs of statements and the survey participant is allowed to choose the statement that best characterizes his or her behavior. An example is the following two statements:

- I am usually firm in pursuing my goals.
- I might try to soothe the other’s feelings and preserve our relationship.

The results of those choices were scored (raw scores) and converted to percentiles. Results of the survey yielded an individual conflict-handling style score for each of the participants.

There are the five conflict-handling styles: competing, compromising, cooperative, avoiding, and accommodating.⁴⁴ The validity of the TKI Instrument has been previously established through research studies measuring conflict.⁴⁵ Ben-Yoav and Banai conducted instrument comparisons, and the TKI demonstrated a strong level of validity based on research results that are widely accepted in this field of study. The TKI’s reliability was verified by CPP (a Myers Briggs company) through rigorous testing performed by Schaubhut. Schaubhut tested median differences in a normative sample of TKI scores between men and women, ethnic groups, organizational levels, and educational levels.⁴⁶ The results were negligible in terms of practical importance.⁴⁷ The reliability testing for the TKI measured consistent results over broad ranges of participants and subject matter.

⁴⁴ Thomas and Kilmann, *Conflict Mode Instrument*, 2–3.

⁴⁵ Orly Ben-Yoav and Moshe Banai, “Measuring Conflict Management Styles: A Comparison between the MODE and ROCI-II Instruments Using Self and Peer Ratings,” *International Journal of Conflict Management* 3, no. 3 (1992): 237–247; Evert Van de Vliert and Boris Kabanoff, “Toward Theory-Based Measures of Conflict Management,” *Academy of Management Journal* 33, no. 1 (1990): 199–209.

⁴⁶ Nancy A. Schaubhut, *Technical Brief for the Thomas–Kilmann Conflict Mode Instrument: Description of the Updated Normative Sample and Implications for Use* (Sunnyvale, CA: CPP, 2007).

⁴⁷ Schaubhut.

3. Survey Administration

A recruitment memo was sent to solicit participants for this study (see Appendix A). The social network questions, the TKI instrument, and demographic questions were input into the Naval Postgraduate School's electronic Lime Survey account and sent to the participants. Results of the input were downloaded into Excel spreadsheets for analysis.⁴⁸

4. Survey Analysis

The results of Part I were downloaded into E-NET, a software package that analyzes ego network data (rather than whole network data).⁴⁹ An ego network shows a focal node (ego/participant) and the “alter” nodes with whom that participant exchanges information. These networks are referred to as personal networks or ego-centric networks. Figure 6 illustrates an ego network for one of the participants in this study.

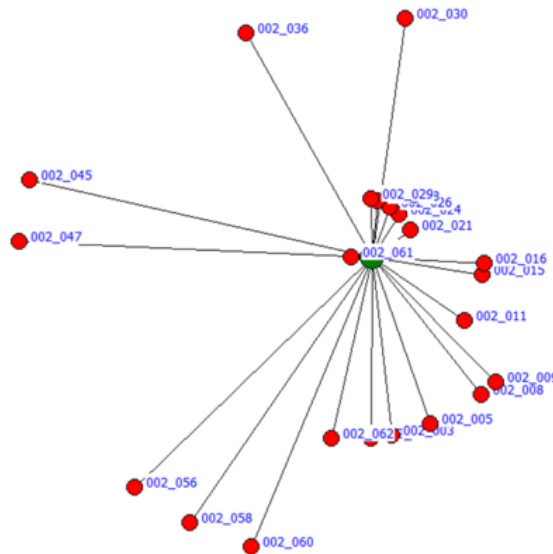


Figure 6. Ego Network of Aaron (Pseudonym)

⁴⁸ The TKI is a copyrighted instrument. Permission to use the instrument was obtained from the publisher, CPP.

⁴⁹ “E-Net,” Google, accessed March 17, 2018, <https://sites.google.com/site/enetsoftware1/download>.

Examples of network measures include:

- Homophily: To what extent do individuals (e.g., detectives and police officers) form ties with those similar to themselves?
- Communication patterns: Who is initiating communication among police officers and detectives within and between districts?

Part II (TKI conflict-handling styles) was scored according to the TKI publisher's instructions. Each participant was rated for each of the five styles. Each style received a raw score of 0–12. The raw scores were translated into percentiles using the publisher's norms. Conflict-handling style profiles were developed for each of the four police districts plus the Novi administrative cell.

Part III of the survey consisted of the demographic information that assessed the current assignment at the police department and current assigned district. This section consisted of two questions that allowed the researcher to categorize assigned district and area and aggregate that data to form district profiles consisting of the primary conflict-handling style. The data were then analyzed and used in the social network analysis to assist in the graphing of information-sharing networks. These demographics allowed the researcher to manipulate the data in many different ways to determine the connections among the police department, district, and roles within the department. These associations were important for determining and practically assessing if the data showed a relationship between district assignment and conflict, or if a relationship did not exist. The demographics also helped characterize the roles and interpret the datasets to include the three categories of police officer, detective, and administration.

B. QUALITATIVE INTERVIEW METHOD

In addition to the quantitative survey instrumentation, a subset of Novi Police Department personnel was recruited to participate in semi-structured telephone interviews. Appendix B displays the recruitment memo that was sent to the participants. Nine short interviews were conducted (lasting approximately thirty minutes each) with sergeants, detectives, and police officers in each of three of the districts. The researcher did not

include members of her assigned district to protect the anonymity of the participants. The purpose of this part of the study was to allow district members to elaborate on their information-sharing patterns.

1. Interview Protocol and Administration

The nine interviews were conducted in three of the four Novi police districts. The initial interview protocol was sent to officers and detectives in each of the three districts. There were fifteen emails sent to potential participants based on their assigned police district and role within the department. The purpose of selecting fifteen was to ensure a variety of respondents and to provide a sample amount likely to elicit at least nine interviews. The research assistant, Sally Baho, used the following questions:

1. Describe the last large case you worked. Was there any follow-up needed or meetings that followed that case? Who was in the meetings? Was the initial officer taking the report included in the meeting? Was any feedback provided to you or anyone else outside the meeting? If so, to whom and what type of feedback?
2. When was the last time you recall gaining additional information/intelligence about a crime and passing (if you are an officer to a detective) OR (to an officer if you are a detective)? How long ago was that? How did you do this sharing: email/phone/in-person/other method?
3. How important is it to share information/intelligence with other officers and detectives? Explain.
4. What do you think hinders information/intelligence sharing?
5. What do you think helps information/intelligence sharing?

The survey and interview questions used in this study were tested prior to their administration. Police department members were considered subject-matter experts because they are members of the organization and have intimate knowledge of police department communication processes. A pilot survey was constructed and performed on

two randomly selected members of the police department for validity and reliability. The pilot survey allowed the researcher to change wording on one of the questions related to communication. For example, it was suggested by the pilot participant to change the word “hinder,” to the word “barrier,” as a word in the question to make it easier to understand. These slight changes ensured validity in the researcher-made instrument. The pilot survey answers were consistent among the pilot participants with similar themes of information-sharing processes.

A research assistant conducted the interviews for anonymity purposes and to ensure that police officers and detectives did not feel obligated to participate because the researcher is a supervisor within the police department. The research assistant ensured that the participants consented to participate in the research before the interviews were conducted (see Appendix C). The interview questions were administered one-on-one, over the phone, to allow participants to provide observations, perspectives, and thoughts regarding the organizational approaches used at various phases of the information-sharing process in the police department.

The research assistant audio recorded the interviews to ensure accuracy. The interviews were then transcribed verbatim. The transcripts yielded seventy-six single-spaced pages. Before releasing the information to the researcher, the research assistant assigned a code to each interview participant to preserve their anonymity.

2. Analysis of Qualitative Data

The researcher analyzed the interviews by conducting a close reading of the transcripts. The process consisted of identifying themes in each of the nine interviews and compiling them into a spreadsheet. The spreadsheet was broken into twelve columns based on the interview questions and demographics. There were nine rows for each of the interview participants. An example of this spreadsheet is shown in Table 2.

Table 2. Interview Theme Analysis

Question 1			
Describe the last large case you worked.	Was there any follow-up needed or meetings that followed that case?	Who was in the meetings?	Was the initial officer taking the report included in the meeting?
sexual predator	child protective services/I do it myself	another detective sits in with me/2 defense attorneys/mother of victim	no
fraud shoplifting	no/not much feedback/once you do your part/"I did my part"	no	no
house fire causing death	Meetings	Homeland Security/ICE/United States Attorneys	no
house fire causing death	meetings	detective bureau there/Homeland Security/ICE/Secret Service	no

After all interview data were placed into the spreadsheet, themes emerged. Themes were categorized as enablers and barriers to information sharing. These themes were used to describe results about information-sharing behaviors within the police department.

C. SUMMARY

This chapter described the research methods for the quantitative and qualitative measures that were used to analyze the information-sharing behaviors within the police department. The quantitative methods were largely derived from social network measures and the TKI instrument. These measured frequency of contact and assessed the participants' relationship patterns and conflict-handling styles. The qualitative results were collected through semi-structured interviews and helped the researcher interpret the patterns explained through the words of the officers and detectives in the organization. The next chapter discusses the results of the quantitative measures through network analysis and conflict analysis.

V. QUANTITATIVE SURVEY RESULTS

This chapter presents the quantitative findings for the research questions. Analyses for this chapter were derived from an online survey that was completed by forty respondents from the Novi Police Department.

A. PARTICIPANT DEMOGRAPHICS

Table 3 shows the four districts, A–D, along with those survey participants who were not assigned a district. Those not assigned a district were labeled as “Administration” or “No District.” The table shows the role of each participant within the district as patrol officer, detective, or administrator. For District A, six patrol officers and one detective participated in the survey for a total of seven participants. District B had eight participants: seven patrol officers and one detective. The seven participants from District C were all patrol officers. District D had five patrol officer participants and one detective, for a total of six participants. Three administrators participated, along with eight patrol officers and four detectives not assigned to a district.⁶⁴

Table 3. Study Participant Demographics

	ROLES		
DISTRICT	PATROL	DETECTIVES	ADMINISTRATORS
A	6	1	0
B	7	1	0
C	7	0	0
D	5	1	0
Administration	0	0	3
No District	8	1	0
TOTALS	33	4	3

⁶⁴ All interviews were confidential; the names of interviewees have been withheld by mutual agreement.

B. SOCIAL NETWORK

Part I of the survey was designed to determine how participants shared information with others in the police department, reveal communication practices within and between districts, and describe communication patterns within and between individual roles. Analysis at the macro level involved observing the entire respondent pool, and middle-level analysis compared district and role information-sharing practices.

The first question from the survey asked participants how many times since the last shift bid they had communicated with a detective and/or officer about crimes occurring in their district. Table 4 shows how many police department members each respondent estimated communicating with in their own districts over the prior six months. The six-month time frame was important because it allowed for a discrete period of recall and gave an analysis of that shift bid.

Table 4. Intra-district Crime Communication

	AVERAGE	PATROL	DETECTIVES	ADMINISTRATOR
0–10 TIMES	40%	42%	25%	33%
11–20 TIMES	27.5%	27%	25%	33%
21–30 TIMES	5%	0%	50%	0%
Over 30 TIMES	27.5%	30%	0%	33%
TOTALS		n=33	n=4	n=3

The first question gauged overall network communication patterns by role. The majority of the respondents fell in the 0–10 and 11–20 times categories. The majority, 67.5 percent, are communicating about crimes within their districts less than 20 times in a six-month period. Lower numbers are reported among all groups in the 21–30 times and over 30 times categories, with an average of 32.5 percent in a six-month period. Results show that communication about crimes is not prevalent within district assignments. It may also indicate that the relationships within districts are not being utilized to communicate about crimes.

Questions 2–4 used data from pull-down menus (see Appendix C) to describe the Novi Police Department’s social network. The network analysis allowed the participants (ego) to indicate their communication with sixty-two other police department members (alters) in their social network.⁶⁵ Figure 7 shows an example of respondent #024 (ego)’s connection with others in the department. This respondent reported face-to-face communication with twenty-four other employees in the department.

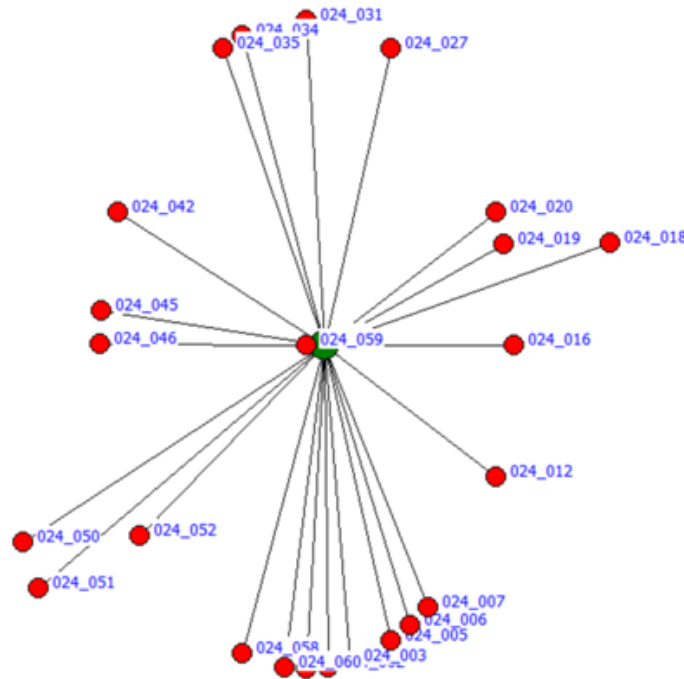


Figure 7. Respondent #024 Social Network

Analysis of responses to questions 2–4 yielded four percentages: average intra-district communication, inter-district communication, within-role communication, and between-role communication networks. Intra-district communication was calculated by taking the number of links reported with individuals in the respondent’s same district divided by the total number of links that respondent reported in any district. An example would be a member of District A communicating with other District A members. Inter-

⁶⁵ Knocke and Yang, *Social Network Analysis*, 154.

district communication was calculated similarly. The total number of links the respondent reported in different districts, over the total number of links reported by the respondent in any district. For example, if a member of District A communicates with members of Districts B, C, or D.

Within-role communication means responses were measured based on the participant's (ego) selection of other police department members (alters) that were of the same role. The police department was broken into three separate categories to describe roles: patrol officers, detectives, administration, and others. A within-role communication indicates that a patrol officer communicated with another patrol officer either face-to-face or via email. Conversely, if a patrol officer selected a detective from the drop-down menu, this indicates between-role communication. Figure 8 shows the average percentage of intra- and inter-district and role communication with average ego and alter linkages.

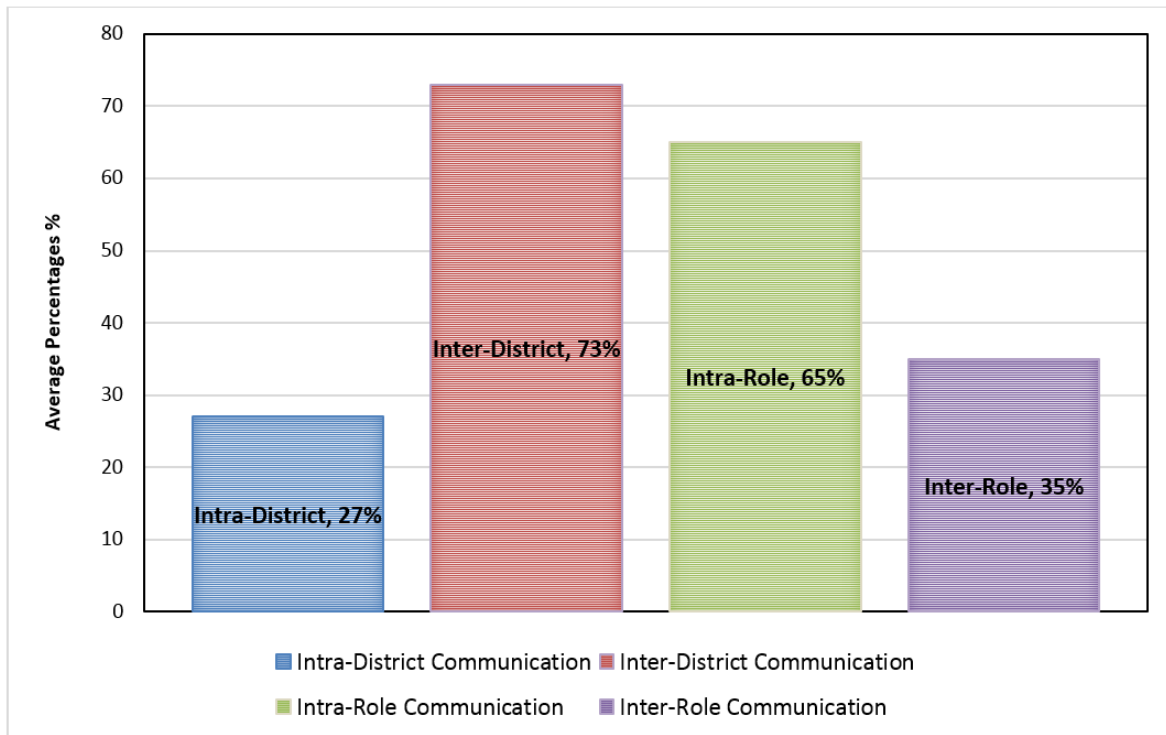


Figure 8. Intra- and Inter-district and Role Communication: Average by % Ego-Alter Linkages

The results show that employees are more likely to communicate with those outside their assigned district than to communicate with those inside their own district. The department average for intra-district communication is 27 percent, whereas the department average for between-district communication is 73 percent. The police department's work groups, defined by districts, report significantly lower communication with alters within their assigned districts. The members of a district have their shared district in common, which could be a starting point for conversation; however, it appears that communication between districts is more commonplace.

The department role averages show the inverse of the district averages within-role communication was 65 percent and between-role communications was just 35 percent. This result is consistent with a previous study by McPherson, Smith-Lovin, and Cook, which showed that work groups often demonstrate ties with similar groups—a concept known as homophily.⁶⁶ The survey results suggest that this occurs in police organizations based on role: patrol officers primarily communicate with other patrol officers, and detectives communicate more frequently with other detectives. This suggests a stronger identification with a police officers' role than district.

For district-level communication, it was important to examine the ties within and between the districts (A, B, C, and D) to reveal the existing network's communication patterns. Table 5 shows the four districts and an additional district, labeled "N/A," for employees who were not currently assigned to a district or who did not have a particular assigned district in their work activities (for example, juvenile detectives, narcotics detectives, probationary police officers, and assistant chiefs may not be assigned to a district).⁶⁷

⁶⁶ Miler McPherson, Lynn Smith-Lovin, and James M. Cook, "Birds of a Feather: Homophily in Social Networks," *Annual Review of Sociology* 27, no. 1 (2001): 415–444.

⁶⁷ Novi Police Department, *Police Department Organizational Chart*.

Table 5. Communication within and between Districts (by Percentage)

	PATROL OFFICERS		DETECTIVES		ADMINISTRATORS	
	Intra	Inter	Intra	Inter	Intra	Inter
District A	42	58	-	-	-	-
District B	18	82	10	90	-	-
District C	29	71	-	-	-	-
District D	11	89	7	93	-	-
Adm/Other	28	72	45	55	42	58

Table 5 shows that detectives and patrol officers generally communicate between districts or outside of their assigned district, with higher average percentages reporting from 58 percent to 93 percent. These results show stronger ties in the network for inter-district communication and weaker connectivity for intra-district communication, suggesting that the assigned work groups are not optimizing communication within the district. This lack of intra-district communication can be problematic; when trying to solve crimes and community problems, low communication patterns between members of the same district could lead to information being missed or not communicated at all. District A shows more balanced within- and between-district communication. Districts B and D show large disparities of within- and between-district communication.

The analysis also considered how roles may be related to communication patterns, and how these communication patterns affect information sharing within the department. Within-role communication indicates that employees who have like roles communicate with one another, such as a detective speaking with another detective. Between-role communication occurs when employees with dissimilar roles communicate with one another, such as a patrol officer communicating with a detective. Table 6 shows these communication relationships within and between roles.

Table 6. Communication within and between Roles (Average by Percentage)

	PATROL OFFICERS		DETECTIVES	
	Within Role	Between Role	Within Role	Between Role
District A	71	29	0	0
District B	84	16	70	30
District C	80	20	80	20
District D	60	40	57	43
Adm/Other	4	51	82	18

The results suggest that within-role communication is generally preferred among patrol officers and detectives, but not among administrators. Patrol officers and detectives often form bonds based on common goals and trust within their working units.⁶⁸ The department often relies on administration to communicate information to working groups; the data support this idea, indicating lower averages of within-group communication and higher averages of between-group communications.

C. CONFLICT-HANDLING MODES

The focus of this thesis was to determine information-sharing patterns among Novi Police Department personnel. Related to this focus, the researcher was interested in assessing individuals' collaborative styles. In other words, how collaborative are these individuals, and did their individual styles impact their information sharing? The individual styles were measured with the Thomas–Kilmann Conflict Mode Instrument (TKI). The five conflict handlings modes are competing, collaborating, compromising, avoiding and accommodating.⁶⁹ Participants answered a set of thirty questions that resulted in a raw score, which was later translated into a percentile score. Those who scored 75

⁶⁸ Paoline, "Taking Stock," 199–204.

⁶⁹ Refer to the literature review for a description of the styles. Thomas and Kilmann, *Conflict Mode Instrument*, 10.

percent or higher were classified as high use for that style, 26–74 percent medium use, and 25 percent or less low use. Analysis was conducted by assigning conflict-handling modes and measuring by department, district, and role.

The discussion begins with the department conflict-handling styles, a macro-level perspective, to allow for a full picture of the department. Table 7 shows the conflict-handling mode percentiles for all forty participants.

Table 7. Conflict-Handling Mode Percentiles for Novi Police Department

MODE	HIGH ≥75th percentile	MIDDLE 26–74th percentile	LOW ≤25th percentile
Accommodating	12	13	15
Competing	10	14	16
Avoiding	10	17	13
Compromising	18	20	2
Collaborating	5	29	6

Overall, eighteen people (45 percent) scored high on “compromising,” which means that they tend to handle conflict with mid-levels of assertiveness and mid-levels of cooperativeness.⁷⁰ This method can help an employee efficiently arrive at a quick solution.⁷¹ For a police officer on the scene of a family dispute, for example, the officer may allow both parties to state their side of the disagreement, but then seek a compromise to alleviate the situational stress—such as leaving for a short time or apologizing to one another.

⁷⁰ Thomas and Kilmann, 16.

⁷¹ Thomas and Kilmann, 14.

Sixteen respondents (40 percent) scored low on the competing style. This style is associated with high levels of assertiveness and low levels of cooperativeness.⁷² Police departments may benefit from a competing style of conflict handling for tactical-level decision making, such as during an active assailant incident. On the other hand, the competing style can limit a police department when members need to reach a group consensus, as this style can stifle others' ideas, innovation, and collaboration.

The collaborating style has the highest number in the middle range, 29 respondents (73 percent), which represents the majority of department members. Collaborating shows both high levels of assertiveness and cooperativeness. This style is helpful for common goal setting and defining a mission, and research has suggested that it contributes to team member inclusion and effective problem solving.⁷³ This could contribute to higher levels of communication and crime solving. However, collaborative efforts in a police department face challenges such as shift work, time constraints, and egos.

Twelve respondents (30 percent) scored high on the accommodating style, which means they tend to handle conflict with lower levels of assertiveness and higher levels of cooperativeness.⁷⁴ The accommodating style can be beneficial in police departments to help understand other points of view. On the other hand, this style can discourage police officers and detectives from contributing their insights about cases or important issues.⁷⁵

Finally, the avoiding style was reported by only ten respondents (25 percent) in the high range. Avoiding is associated with being uncooperative and unassertive. These results indicate that avoidance is not the preferred way of dealing with conflict within the police department. High levels of avoidance are often associated with burnout and exhaustion.⁷⁶ Euwema, Kop, and Bakker argue that police officers who present avoidance during conflict

⁷² Thomas and Kilmann, 12.

⁷³ Jinseok S. Chun and Jin Nam Choi. "Members' Needs, Intragroup Conflict, and Group Performance," *Journal of Applied Psychology* 99, no. 3 (2014): 437.

⁷⁴ Thomas and Kilmann, *Conflict Mode Instrument*, 16.

⁷⁵ Thomas and Kilmann, 16.

⁷⁶ Martin C. Euwema, Nicolien Kop, and Arnold B. Bakker, "The Behaviour of Police Officers in Conflict Situations: How Burnout and Reduced Dominance Contribute to Better Outcomes," *Work & Stress* 18, no. 1 (2004): 23–38.

may de-escalate the call to provide better outcomes.⁷⁷ However, there study accounted for external environments when police officers must react to the situation, whereas this study concentrated on internal environment conflict.

The department findings show, broadly, how conflict is handled as measured by the TKI. The results show that the department handles conflict in many different ways, depending on the various situations in the complex policing environment. To further explain the specific impact the conflict-handling style has on information sharing, the data were next arranged by work areas or policing districts in an effort to show how the puzzle pieces fit into the broader picture. Conflict handling was measured in each of the four police districts among all officers, detectives, and sergeants assigned to the district. The findings in Table 8 are shown by district.

⁷⁷ Euwema, Kop, and Bakker, “Police Officers in Conflict Situations,” 35–36.

Table 8. TKI Results by District (Percentage of Personnel High, Medium, Low)

	ACCOMMODATING			AVOIDING			COMPETING			COMPROMISING			COLLABORATING		
DISTRICT	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW
A n=7	14	43	43	14	29	57	43	28.5	28.5	29	57	14	14	86	0
B n=8	37.5	25	37.5	12.5	62.5	25	37.5	37.5	25	37.5	62.5	0	12.5	50	37.5
C n=7	14	57	29	43	43	14	28.5	28.5	43	29	71	0	14	86	0
D n=6	0	50	50	33	50	17	16.5	67	16.5	83	17	0	16.5	67	16.5
ADM n=3	33	0	66	0	0	100	0	33	66	66	33	0	33	66	0
OTHER n=9	66	11	22	33	44	22	11	33	55	44	44	11	0	77	22
AVERAGE	27.42			22.58			22.75			48.08			15		

The results of the district analysis show that District A is the highest user of the avoiding conflict style. There are larger differences among the other districts, with much lower percentages for the avoiding style. This may indicate that District A members have more trouble setting priorities and delegating responsibilities than members of the other districts.⁷⁸ It may also indicate that District A members feel powerless or are frustrated with the perception that the department member has no way of changing the outcome in a situation.⁷⁹

District D tends to favor the compromising style, reporting the highest percentage out of all the districts: 83 percent in the high category. This could mean that District D officers prefer to bargain in order to arrive at a quick decision to solve problems temporarily. However, this approach could backfire; it could cause an officer to be more cynical and create interpersonal trust issues, deflecting attention away from the actual issue.⁸⁰ The compromising style has shown in all districts to be at medium or high levels, with three of the districts (B, C, and D) reporting no low scores.

District A and District C had the highest percentages in the medium categories for the collaborating style, with neither district reporting in the low areas. The collaborating style is considered both assertive and cooperative.⁸¹ Few responses in the low range indicate that district respondents can appreciate mutual opportunities to learn from each other and gain insight. These responses may indicate the importance of collaboration among the districts, but the results demonstrate room for growth. District measures for the police department in the area of conflict handling did not reveal any particular pattern. There are factors that may provide rationale for this: the district employees are rotated every six months, and employees often take calls outside of their assigned district during peak times. In other words, group identity can be hard to establish with a changing environment.

⁷⁸ Thomas and Kilmann, *Conflict Mode Instrument*, 15.

⁷⁹ Thomas and Kilmann, 14.

⁸⁰ Thomas and Kilmann, 14.

⁸¹ Thomas and Kilmann, 8.

Next, roles were studied within the police department. The roles were broken down generally to ensure anonymity when the survey was administered. The roles were simply described as patrol, detective, or administration. For example, the patrol section could have many ranking department employees, including sergeants and lieutenants. This was a limitation of the study; it did not identify actual respondents by role and rank to ensure anonymity. Table 9 shows a breakdown of the survey results by role.

Table 9. TKI Results by Role (Percentage of Personnel High, Medium, Low)

	ACCOMMODATING			AVOIDING			COMPETING			COMPROMISING			COLLABORATING		
ROLE	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW
PATROL n=33	24	36	39	27	45	27	30	30	39	45	48	6	12	70	18
DETECTIVES n=4	75	25	0	25	50	25	0	75	25	25	75	0	0	100	0
ADMIN n=3	33	0	67	0	0	100	0	33	67	0	33	67	33	67	0

The majority of the survey respondents were patrol officers; this was expected since patrol is the largest division in the police department. Thirty-three total respondents self-identified as belonging to the patrol division. It was important to distinguish roles in this research in order to determine if conflict handling and information sharing were related based on role. Only four detectives participated in the survey, and only three administrators—however, this accounted for all administrators in the police department.

Patrol officers had the highest level of the compromising style, whereas the detectives had the highest level of the accommodating style. These levels support the desired outcomes of each role. Compromising falls in the mid-range between cooperative and assertive; its uses can be described as bargaining, temporary settlements, and expedient solutions.⁸² Patrol officers must often use these techniques to diffuse calls for service; they have limited time to spend with citizens due to other calls and other duties. The accommodating style shows high levels of cooperation and low levels of assertiveness.⁸³ This style is essential for detectives, who must exhibit fairness and demonstrate a caring attitude. This satisfies suspect needs and generally promotes cooperation. Detectives are tasked with interviews and interrogations, and building rapport is often part of successful investigations.⁸⁴ These differences in role conflict at high levels may suggest that conflict is related to work tasks.

Administration had the highest levels of the accommodating and collaborating styles, and the lowest level for the avoiding style. Avoiding involves low levels of assertiveness and low levels of cooperativeness. These results demonstrate that, at the administrative level, problems must often be addressed and cannot be avoided.

⁸² Thomas and Kilmann, 14.

⁸³ Thomas and Kilmann.

⁸⁴ Fred E. Inbau et al., *Criminal Interrogation and Confessions* (Burlington, MA: Jones & Bartlett, 2011).

D. RELATIONSHIP BETWEEN CONFLICT-HANDLING MODES AND INFORMATION-SHARING PATTERNS

To answer the research question about the relationship between conflict-handling styles and information sharing, the research compared the ego-alter average linkages among the various styles, as shown in Table 10.

Table 10. Conflict-Handling Styles and Ego-Alter Average Linkages

Conflict Handling Style	Ego-Alter Average Linkages
Competing	7.6
Collaborating	27
Compromising	17.9
Avoiding	17.1
Accommodating	6.3

The collaborating style had a higher than average ego-alter linkage. In other words, communication patterns exist in the police department network (ego-network) and those showing collaborative conflict styles tend to reflect more ties or links, which in this case appears to represent communicative relationships. The competing and accommodating styles had lower ego-alter linkages, which shows fewer ties or links in communicative relationships. The competing style fosters a win–lose relationship, and the accommodating style is unassertive.⁸⁵ A low number of ego-alter linkages for these two styles can explain how these conflict styles might affect overall information sharing and communicative relationships within the network. These results demonstrate that when conflict-handling styles are compared with communicative relationships, collaborative styles tend to have higher ego-alter linkages.

⁸⁵ Rahim, *Managing Conflict in Organizations*, 28.

E. SUMMARY

This chapter reviewed the quantitative analysis from the TKI and social network analysis. The analysis started at the department level then diffused into the district and role levels to provide an in-depth analysis of conflict-handling practices. Social network analysis was then applied to the conflict-handling styles. The network analysis showed that the collaborating style had the highest linkages between collaborative conflict-handling styles and network relationships. It also showed a lower number of linkages with the competing and accommodating styles. But why are these information-sharing patterns occurring? The next chapter discusses the qualitative results and themes that were present in the police department interviews, offering further explanation.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. QUALITATIVE INTERVIEW RESULTS

Nine phone interviews were conducted with members of the police department to gather additional input regarding information sharing within and across Novi police districts. As described in the Chapter III, transcripts of the phone interviews were coded and analyzed for common themes. These themes were later sorted into two categories: enablers of collaborative information-sharing practices, and barriers.

All interviews were confidential; the names of interviewees have been withheld by mutual agreement. Each interviewee was assigned a code (P1–P9) based on the chronological order in which the interviews occurred.

A. ENABLERS OF COLLABORATION

It is important for organizations to evaluate which of their practices are working well so the processes and activities can be continued or replicated. In this light, the interview questions sought to identify enablers of collaboration in the Novi Police Department—how individuals are working together across organizational boundaries for the collective good.⁸⁶ This section discusses three areas discovered through the interviews that enable collaboration and promote information sharing within the department.

1. Common Goals/Teamwork

Common goals were important to a majority of the interview respondents. By establishing common goals, the employees are able to work more independently toward desired outcomes. One interview respondent remarked,

(P5) “Common goal is to arrest the bad guy. You know, that’s what we do out there. We are all looking to make our city safer or our agency—what city we serve, what state we serve. That’s what we do.”

Making the city safer and arresting the bad guy often relies on information sharing. Information sharing becomes crucial so that each police department member involved can

⁸⁶ Chris Huxham and Siv Vangen, *Managing to Collaborate: The Theory and Practice of Collaborative Advantage* (London: Routledge, 2013), 4.

contribute and feel a sense of membership in a team. Referring to an arrest made in an embezzlement case, interviewee P1 discussed the importance of shared goals to coordination, stating, “We are passing information because we are involving everybody. So everybody feels like they are part of the team, if you will.” Teamwork between police officers and detectives in this case allowed for an arrest to occur. For example, P6 said, “I just happened to be talking to another detective about a case about some lady going into a party store cashing bogus checks ... I rattled her name off and a task force officer from Troy, which is about 20 miles from us ... said hey, I have got like 18 cases against that woman.” By sharing this intelligence with another detective, P6 strengthened the case for both jurisdictions. Goal interdependence—or relying on others—signals the importance of common, result-oriented goals that serve each organizational member’s best interest. Sharing common goals often requires members to trust each other and form relationships.

2. Trust

When the interviewees described information sharing, they placed a heavy emphasis on trust, which is promoted by forming relationships, whether informally or formally. As interviewee P5 explained, “When we speak informally, you know, as friends, there is a lot of information shared.” These informal relationships can generate formal information sharing, often achieved simply through casual conversation within the department. Interviewee P6, describing a similar occurrence, said, “We will be sitting around and I will run a name by somebody and all of a sudden somebody from Secret Service is like, hey, we are working a case on that person, type thing.” These relationships can generate information sharing that can in turn lead to breaks in an investigation, suspect identification, and arrests. In order to optimize information sharing, however, relationships must be fostered through positive information flows in the police department.

3. Positive Information Flows

Positive information flows enable the sender and receiver to understand the information in an efficient and effective manner.⁸⁷ Interviewees mentioned that

⁸⁷ Badjor and Grabara, “Information System Flows,” 96–99.

information sharing is positively enabled by the pass-on book, intelligence bulletins, and shift briefings. The pass-on book is a binder left in the briefing room where daily information and intelligence is placed. Interviewees commented that the pass-on book is easily accessible and available for any employee to share information inside it. P2 said, “Really, the pass-on book is the only big access that we have for everybody to share any kind of information back and forth.” Because the book is available twenty-four hours a day, it also provides an immediate reference for night-shift employees who are unable to contact a day-shift detective.

Intelligence bulletins are disseminated frequently, generally by email or through the pass-on book, and provide feedback on local, regional, and national crime trends. When asked about ways information is shared in the police department, interviewee P1 also mentioned “intel bulletins that we will email out to each other. So, there is a common email thing that goes with multiple jurisdictions that surrounds us.”

Additional positive information flows mentioned during the interviews were daily briefings at the police department, which give members an opportunity to pass along information from the previous shift or from areas of special attention. Special-attention items are also discussed in sergeants’ briefings and weekly COMPSTAT meetings, which take place on an assigned day and time each week and require preparation and attendance from both the patrol and detective divisions. During weekly COMPSTAT meetings, P6 explains, the staff goes over statistics and “the detectives ... talk about trends in their investigative work.” Interviewees indicated that these positive information flows can lead to discovery of a previously unknown clue in a case, or can help them locate a suspect based on information from another jurisdiction.

B. BARRIERS TO COLLABORATION

Police departments, like other workplaces, face challenges with collaboration that can form communication barriers. Often, these barriers are associated with organizational processes, or with conflicts in relationships or tasks. The interviews identified four needed areas of improvement to enhance collaboration in the police department: ego, physical barriers, work, overload, and negative information flows.

1. Ego

When members of an organization share information, they may feel as if doing so means they are relinquishing control or losing an advantage. The interviewees revealed that, at times, choosing not to share information is viewed as a way to get ahead among peers. P5 admitted, “I didn’t want to pass information along to anybody because I wanted to make [the] arrest.” Hoarding information allows officers or detectives to have more intelligence about the suspect, and that gives them an edge for making an arrest. As interviewee P4 mentioned, “Unfortunately, that can sometimes get in the way of people doing their jobs ... not wanting to share important information because they actually, you know, may want to hold on to it so that they themselves can receive the glory.” At times, an officer or detective’s perceived lack of recognition for a case can cause conflict. For example, P1 said, “The [detective bureau], they kind of pick it up ... they are down the hall from the chief, so they are always kind of getting noted for all of that good work Patrol is king of getting [forgotten] about.” In police departments, an officer or detective who makes a significant arrest or solves a large case is often revered by his or her peers. Those significant arrests can lead to promotions or special assignments within the department, which creates jealousy and animosity and can cause relationships to deteriorate.

2. Physical Barriers

Physical barriers were also mentioned as a hindrance to collaboration in the police department. The patrol officers are located on the first floor of the police department, and detectives on the second floor; this seems to create a barrier between the work groups. In addition, physical security measures permit patrol officers to use only certain doors (through which access is granted with a proximity card) to access the second-floor detective bureau. While these security measures were put in place as a standard for accreditation, they were cited during the interviews as a barrier to collaboration. Interviewee P4 referred to the barriers as “a natural separation that occurs within our agency”; P2 elaborated, saying, “Even in the building itself, the physical building, when we need to get access to the detective area, or dispatch, we are locked out.” Other interviewees mentioned the locking of the case management report system: from time to time, the department will lock

large investigations to prevent access. If one department has access to the case management report system for a certain case but another does not, it can create the perception that one group is favored over the other, or that one group cannot be trusted with the information.

3. Work Overload

The need to set priorities was also commonly mentioned as a barrier to collaboration. Some officers explained that they do not have enough time, or they are overburdened with other responsibilities. In a data-driven department that reports measurable outputs, officers often feel pressured to compete with each other for arrests and traffic stops. Interviewee P2 explained, “you have got to make arrests; you have got to make your numbers.” Information sharing becomes secondary to other, more tangible, performance measures. Departments frequently emphasize measurable outputs; officers and detectives are rewarded or incentivized with training and special unit assignments. As P5 said, “I think people might ... [hold] the information that they have to themselves so that it can better them and the agency as far as the performance evaluations and possible promotion in the future.”

Other interviewees spoke about time management issues or exhaustion at the end of shifts. When it comes to information sharing, P8 said, “[it’s] one more step that I have to remember ... to go into the station at a later time or whatever, and remember to send that email about, you know, one more thing.” P3 mentioned that road patrol officers “don’t have the ability to sit down and send out an email, and if they do it’s at the end of a shift. And, you know, guys after working twelve-hour days, they are ready to go home and might not take the time to do that.” Often, the very nature of police activities can lead to staff members feeling overwhelmed and exhausted after a long shift. These feelings may lead to information not being shared at all, or poor information flow.

4. Negative Information Flows

Information overload generally means that a person has so much information about a topic or subject that he or she becomes overwhelmed by its sheer volume. Information overload can lead to negative information flows in a police department. The interviewees mentioned several contributing barriers.

a. *Email*

Police departments often use email as a matter of convenience; operations run twenty-four hours a day, which makes it difficult to reach everyone in the organization. Information overload can cause employees to ignore or dismiss important information. For example, P5 described information overload after being off from work for a week: “In a week, I came back to close to 400 emails. Probably of that, 5 percent were pertinent to my job that I needed to get done.” Per P10, “I mean, I get 50 emails a day ... that’s too many emails, to be honest with you, to try to go through all that stuff.” These examples of email overload can have negative effects on understanding, processing, and dissemination of information.

Additionally, it can cause resentment when information is re-sent or forwarded several times to provide a formal communication method, or as a way to hold someone else accountable through an electronic record. P10 commented:

The email will [say] ... please document this appropriately, blah, blah, blah. I will kind of be sitting there, like: okay, well, what do they mean? What do they want me to do? Do they want me to, like, do this big huge formal investigation? Or do they just want me to kind of, like, document it?

As P10’s comment suggests, an employee on the receiving end of an email may not be sure what to do or how to handle the information in order to take action. Although email may be a matter of convenience, police officers often prefer human interaction.⁸⁸

b. *Communication Process and Accessibility*

Another area of contention was the process for and accessibility of communication. Police work has the unique challenge of attempting to share information without a reasonable means through which to share it. Patrol officers spend much of their time at work in a vehicle, responding to calls for service. In-car patrol computers do not offer officers email access through which to share and receive information. When interviewee P8 was asked about what might facilitate information sharing, the interviewee said, “It would be [the ability] to do it from our car, or computers in our cars.” Instantaneous

⁸⁸ Hu, “Same Bed, Different Dreams,” 432.

information sharing has been enabled through the use of smartphone technology. Police departments often use this technology to take photographs, record interviews, make phone calls, or look up information in the field. As P8 mentioned, “Our sergeants get their own cell phones from the department, but officers don’t. Detectives do.” This response shows a clear delineation between groups by specifically calling out each role and describing the feeling of being left out or not receiving a resource.

c. *Feedback*

The importance of feedback was mentioned several times during the interviews. A patrol officer will often take an initial crime report, and the report will then be forwarded to the detective bureau for further investigation. Often, the patrol officer wants to know if the detectives were able to identify more information that could assist in identifying the suspect. Interviewee P8 commented,

The detectives, they obviously can spend more time and dig into a case a little bit more and find out more about what happened. I find that a lot of times that happens and it doesn’t get passed back down to them on the road. We have no idea that a suspect has been identified that we could be looking for, or a vehicle has been identified that we could be looking for.

A breakdown in the flow of information could result in disconnect between the two roles (patrol and detectives) that rely on each other to solve and prosecute crimes.

One possible reason for this disconnect could be that no one individual is responsible for following up or for coordination between patrol officers and detectives; the department simply assumes that this task is occurring. Interviewee P6 mentioned the lack of clearly defined roles, explaining, “probably hourly emails are going on about what is taking place,” and P4 did as well, stating, “I think they probably got updates just through word of mouth, but there was no direct communication specifically updating all, through the initial responding people.” These responses indicate that there is no accountability for information sharing, and the assumption that someone else is handling the feedback. This breakdown in communication shows the importance of two-way communication, and exemplifies why a police department would benefit from a higher form of communication by way of feedback loops.

C. SUMMARY

This chapter discussed the enablers and barriers to collaboration within the Novi Police Department by examining interviews with department members. The issues that were identified as enablers and barriers showed the areas in the police department that fostered and stymied communication. The interviews showed the significance of information sharing and the impact it can have on gaining further evidence and solving crimes. The interviews also identified different areas of conflict among employees, which can lead to discussion on ways to improve processes, tasks, and relationships. The next chapter engages in that discussion about areas of conflict that hinder collaboration within the police department.

VII. DISCUSSION

Collaboration and information sharing are important for police departments because they allow everyone in the police department to work toward a common goal: improving the quality of crime solving. We know a great deal about inter-agency collaboration for large-scale incident responses; however, less is known about intra-agency collaboration within police departments. To broaden understanding and deepen knowledge in this area, this study explored information sharing and collaboration among police department members. In particular, the study focused on the factors that enable and impede intra- and inter-district collaboration.

A social network analysis was used to measure information-sharing patterns within the police department. The analysis revealed that department members communicate more across districts than they communicate within their assigned districts. This might occur because of shift work, proximity, and competition in groups. The network analysis also showed that department members communicated more within their role and less between their roles. In other words, police officers communicate more often with other police officers and less often with detectives. Likewise, detectives are more likely to communicate among themselves.

A. STRUCTURAL ISSUES IMPACTING INFORMATION SHARING

Many structural issues impact communication patterns at the Novi Police Department. These structural issues were noted as formal hierarchy and competition among groups, working twelve-hour shifts, physical proximity, and the criminal process.

Formal hierarchy can play a role in limiting communication between members in a police department. Thibault et al. recognized this issue, explaining, “The answer is often that communication breaks down among divisions and individual commanders begin to build bureaucratic empires, where one bureau tries to outdo another in competition for perceived glory and resources.”⁸⁹ The data in this study supported that there is less

⁸⁹ Thibault et al., *Proactive Police Management*, 157–158.

communication within the district and also between roles, which shows there may be competition among members within a police department. Epstein and Harackiewicz echo this idea, affirming that groups with high achievement also tend to breed intra-group competition.⁹⁰

The challenges of working twelve-hour shifts and having separated work areas also were recognized as structural issues. Physical proximity and shiftwork impact information flow; the “out of sight, out of mind” mindset can create negative information flows, which can cause tensions to rise between coworkers and create relationship problems. Hinds and Bailey studied distance and conflict and found that friendships are more difficult to foster when there is distance between work groups, and this distance can impede trust and cohesion, and can reduce opportunities to interact.⁹¹ Trust was a common enabler to collaboration identified in the interviews for this study. This research suggests that, in the police department, distance has a negative effect on the connectedness of the communication network and information sharing.

Finally, the linear design of the criminal process can stifle information flows. This linear process prevents interdependence and creates a one-way model that limits communication among groups. This model is very similar to an assembly line, where each person is assigned to a separate task and is not taking into account any enhancements that could be offered along the way. The criminal process may benefit from a new model focused on reciprocal interdependence that relies on high levels of communication to strengthen cases.

Interview participants also described structural barriers that impede information sharing and promote inter-district and intra-role dominance. In other words, police department members recognize that structural barriers may actually be promoting a disconnect and limiting information flows in the police department. Previous research by

⁹⁰ Jennifer A. Epstein and Judith M. Harackiewicz, “Winning Is Not Enough: The Effects of Competition and Achievement Orientation on Intrinsic Interest,” *Personality and Social Psychology Bulletin* 18, no. 2 (1992): 128–138.

⁹¹ Pamela J. Hinds and Diane E. Bailey, “Out of Sight, Out of Sync: Understanding Conflict in Distributed Teams,” *Organization Science* 14, no. 6 (November–December 2003): 628.

Stasser and Stewart refers to information sources as “hidden profiles” that could lead to an important piece of missing—and valuable—information.⁹² Police processes can leave out various other information sources that could have an impact on crime solving and criminal apprehension. Recognizing the structural implications for information sharing could mean solving more criminal cases.

B. CONFLICT-HANDLING MODES

Conflict patterns from the district level were examined to determine if there was a relationship between conflict-handling styles and assigned policing districts. Conflict-handling styles for each of the districts individually and collectively were measured. Considerations were made as to relative size and location within the districts, along with the predominant type of activity within the district—such as a retail area as opposed to a residential area. This study concentrated on individual conflict styles within a district and found that there was not a predominant pattern. This may be due to the limited volunteer participant pool not allowing a full analysis of the network. Other potential factors in this analysis were that district assignments for patrol change every six months and, when call volumes are exceeded beyond their limits in a district, another officer from a different district may be pulled to answer calls. These factors are important to consider because they show that limited assignments—in this case, six months—did not establish predominant district-wide patterns based on the individuals assigned to the work group. It also revealed that these assignments are not territorial; rather, they are complex and they change based on daily call activity and case assignments. This may help to explain these results, with numerous officers and detectives being assigned to calls for service or cases outside of their assigned district.

The conflict-handling patterns were more reflective of employees’ roles than of their district assignments. The dominant conflict-handling mode between the patrol officers and detectives were different between the groups. Detectives leaned toward the “accommodating” conflict-handling style, which has high levels of cooperation and low

⁹² Stasser and Stewart, “Hidden Profiles.”

levels of assertiveness.⁹³ Patrol officers' dominant conflict style was "compromising," which shows mid-level cooperativeness and assertiveness.⁹⁴ These patterns suggest a relationship between conflict-handling style and role assignment.

Differing conflict-handling patterns between roles show that goals of groups can differ and may impact collaborative potential.⁹⁵ Interviews showed process and relationship conflict may lead to dysfunction. The results of this study demonstrate that, at times, process or organizational conflicts can also lead to relationship conflicts that affect communication between police officers and detectives. For example, during the interviews, participants shared feelings of being overwhelmed, "left out," and deprived of recognition. Simons and Peterson explain that some of these feelings create stress and anxiety in relationships; one person may worry about what the other person is doing, which may pit them against each other.⁹⁶ Ultimately, this type of conflict can lead to poor performance and outcomes among work groups. It may also create a feeling of alienation and separation, which can impair the flow of information and communication.

Police department administrators favored the "compromising" conflict-handling style, which demonstrates the lowest level of avoidance. This may be reflective of the administration's role: balancing the needs of the city and employee relationships. Administration duties involve decision making at high levels and often require immediate attention—administration conflicts cannot be avoided. The administration communication pattern showed the inverse of the patrol and detective groups; administrators had low levels of communication among the group and high levels of communication between groups, likely because administrators are responsible for issuing department goals and objectives

⁹³ Thomas and Kilmann, *Conflict Mode*, 7–8.

⁹⁴ Thomas and Kilmann, 7–8.

⁹⁵ Karen A. Jehn, "A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict," *Administrative Science Quarterly* (1995): 256–282; Karen A. Jehn, "A Qualitative Analysis of Conflict Types and Dimensions in Organizational Groups," *Administrative Science Quarterly* (1997): 530–557.

⁹⁶ Tony L. Simons and Randall S. Peterson, "Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust," *Journal of Applied Psychology* 85, no. 1 (2000): 102.

to other work groups.⁹⁷ High levels of between-group communication suggests higher levels of collaboration with and understanding of those groups.⁹⁸ In other words, communication between groups is directly related to the job tasks associated with the various positions in the police department.

C. RELATIONSHIP BETWEEN CONFLICT-HANDLING STYLE AND INFORMATION SHARING

Information sharing and collaborative efforts are typically associated with positive outcomes. Davenport and Prusak explain that knowledge within an organization is the way in which it stays competitive, and information sharing within the organization allows the organization to maintain its competitive advantage.⁹⁹ Various studies have measured individual factors related to conflict and information sharing. The purpose of this study was to measure information sharing through informal police department networks and relationships. Conflict handling and informal relationships were found to have an effect on information sharing. Factors related to the department, such as police districts and roles, were examined using the TKI to determine if conflict-handling styles were related to informal information sharing. In addition, social network analysis was conducted to provide valuable insight into the informal relationships that currently exist in the network. The TKI and network analysis revealed factors related to structural, process, and individual characteristics that contributed to further understanding information sharing at the police department.

Collaborative styles were studied from the individual perspective as they relate to a group. Social network analysis showed that there was less intra-district communication and more inter-district communication among police respondents. This is important because it showed that officers and detectives within the same district had lower levels of communication than they did with those outside of their district. This may be related to individual factors associated with ego, such as an employee not wanting to share

⁹⁷ “City of Novi Job Descriptions,” accessed, January 15, 2018, <http://eweb.cityofnovi.org/Human-Resources/Job-Descriptions.aspx>.

⁹⁸ Daft, *Organization Theory and Design*, 289–290.

⁹⁹ Moye and Langfred, “Information Sharing and Group Conflict,” 382.

information so that a particular district member receives the recognition or solves the crime. Previous studies by Bendersky and Hays support the idea of ego inhibiting collaboration; while this may be true up to a certain point, other issues may play a more significant role.¹⁰⁰ Bendersky and Hays concentrated on psychological motivations related to status, whereas this study focused on both intrinsic and extrinsic motivations.

D. LIMITATIONS OF THE STUDY

Conflict-handling styles and communication networks were beneficial tools for this study. However, the study faced limitations that, if improved upon, may inform and enhance future studies in conflict handling, information sharing, and network analysis.

The data interpretation was limited by the small sample size and by the fact that only one police department was sampled, which could lead to validity issues. Particularly, the detective and administration participants in this study were not highly represented in the samples due to the small numbers organizationally. The findings may be of limited use due to the scale of the study, and the results may not be generalizable.

Another limitation was the list of the department personnel to select from for the network analysis. Due to an oversight, three names were left off the list of department personnel, and this may have impacted the validity of the network analysis. The network analysis also did not include the entire police department to provide full network data. This could affect some of the network findings about communication patterns. Future researchers may consider conducting the network analysis differently by considering other methods of data collection.

Some may argue that this experimental design included the self-reporting of the social network by the participants. The researcher made the assumption that the participants would self-report accurate data. Future studies could conduct a separate network analysis that involves participants evaluating other survey participants' networks. This may expound on the findings and give both insider and outsider perspectives on the network,

¹⁰⁰ Corinne Bendersky and Nicholas A. Hays, "Status Conflict in Groups," *Organization Science* 23, no. 2 (2012): 323–340.

and more accurately determine the position of the ego within the network. Additionally, from a numerical perspective, we expect that the percentages would be higher for outside communication because there are more people outside a district than within the district. In order to normalize for that, the actual quantity of communication would have to be accounted for, which could be difficult to measure.

It may be argued that the researcher failed to consider how one conflict mode may interact with another conflict mode, and the impacts this could have on information sharing. For example, if an individual identified an avoiding conflict-handling style and another individual identified a competing style, would this positively or negatively impact information sharing? There is not much known about how conflict-handling modes affect each other as it relates to information sharing. Future research would be needed to determine if there is a relationship.

Finally, this study would have benefitted from including an administrator perspective in the interview section. Initially the study focused more on policing districts, and that drove the interview decisions; however, having an administrator perspective would have been helpful for explaining some of the findings related to roles within and between the network.

E. FUTURE RESEARCH

There are several future research projects that could expand on these findings about police department collaboration and conflict. This study examined one mid-sized police department, with limited numbers of detectives and administrators. By including more police departments with a wider range of participants, particularly detectives and administrators, future research could offer a more robust analysis. Future studies on conflict handling in work assignments could focus on permanently assigned activities and observe whether conflict-handling styles become more pronounced over time, and how that affects communication patterns. Further, district assignments and work groups change every six months in the Novi Police Department due to collective bargaining agreements, and are flexible based on call volumes. A future study may consider determining if a person's rank (officer, sergeant, lieutenant, etc.) in a police department affects his or her

conflict-handling style. A final consideration for future research is to determine if agencies that have highly collaborative teams operate better in external inter-agency operations, such as an active-shooter incident or natural disaster.

VIII. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Research shows that effective collaboration within police departments can improve crime solving.¹⁰¹ The purpose of this study was to better understand collaboration by identifying information-sharing patterns among patrol officers, detectives, and administrators within a mid-size police department. Further, the study's purpose was to identify factors that influenced those information-sharing patterns.

Using survey data, a social network analysis was conducted to identify intra- and inter-district information sharing patterns among the police department members. To better understand how individual differences might impact information-sharing habits, the survey also measured participants' propensity for using a collaborative style versus other styles: compromising, accommodating, avoiding, or competing. Last, results from semi-structured interviews were used to identify additional enablers and barriers to information sharing. The following summary addresses the findings for the specific research questions posed for this study.

A. SUMMARY

This study was designed to answer five research questions. A summary of the findings for each of the questions is provided as follows.

(1) How do information-sharing patterns differ by district and by role?

The data show that inter-district information sharing is more prevalent than intra-district sharing. This finding was surprising; one would expect that police officers and detectives working the same district would take ownership of that district and create an atmosphere of information sharing and communication. However, this was not the case; that data indicate that most sharing and communication occurs between, rather than within, districts. This was later explained in interviews by some of the structural and individual issues that hamper the flow of information. An example of an impediment to intra-district

¹⁰¹ McKinley, "Unusual Collaboration."

information sharing is when an officer wants to ensure that he or she can personally make an arrest, and so withholds information from another officer.

Information sharing by role showed the opposite pattern. Here, the data indicated that information sharing for police officers and detectives is more frequent within the role than between roles. Again, one might expect that police officers and detectives working the same district would exhibit higher levels of information sharing between the roles, but that was not the case in this study. Data from the interviews also helped explain some of the impediments of between-role information sharing. For example, the police department building separates patrol officers (who predominantly occupy the ground floor) and the detectives (located on the second floor). This creates a disconnect of communication between the groups, limiting physical contact.

(2) How do individual conflict-handling styles differ by district and by role?

The most frequently used conflict-handling style among all the participants was the compromising style. Districts B, D, and administration had highest scores for compromising. Accommodating was the next most used style, followed by competing. Collaborating was by far the lowest conflict-handling mode used. This may demonstrate that there is a potential for growth in this strategy. There was not a particular pattern for conflict-handling style within districts. This may be due to the variability of staffing within the districts.

Roles were also examined, revealing that patrol officers tend to use the compromising style, whereas detectives use the accommodating style. Patrol officers and detectives often have different processes to reach their end goals (taking calls, or crime solving). These predominant styles were explained in police department processes. Further, both compromising and accommodating styles had lower levels of ego-alter linkages, which may be related to the communication patterns in the police department.

(3) What is the relationship between individual conflict-handling styles and information sharing?

This study shows that an individual's conflict-handling style appears to be related to that person's information-sharing habits. The social network analysis showed

significantly higher ego-alter average linkages among police department participants in the network when associated with collaborative styles. Alternatively, lower ego-alter linkages were associated with the accommodating and competing conflict-handling styles.

(4) What additional factors influence information-sharing patterns?

The police department interviews revealed several factors related to positive and negative information-sharing patterns in the police department. This study determined that common goals/teamwork, trust, and positive information flows are enablers of communication. Barriers to information sharing included ego, physical proximity, workload, and negative information flows. These positive and negative information-sharing patterns can inform decisions that management makes to improve future information-sharing practices.

B. CONCLUSIONS

Practitioners and academic researchers recognize that collaboration is important for interdependent tasks. This is especially true in complex and changing environments such as policing. One of the most important advantages of collaborative policing is the ability to solve crimes more effectively. Information sharing that is collaborative is more likely to include multiple viewpoints and results in better decision making.¹⁰² This is vital in police departments, as employees must solve crimes and respond to highly volatile situations that require immediate action.

While a moderate amount of task conflict (sharing different opinions) is known to enhance group decision quality, relationship and process conflicts can impede effective information sharing. When department members do not share information with one another, the results are more likely to be unfavorable, such as missing a clue to solve a case or responding to a location and not knowing about threats an officer may face.¹⁰³

Several conclusions can be drawn that may help improve collaboration in the police department. Participants in this study overwhelmingly agreed that information sharing

¹⁰² Chen et al., "COPLINK," 289–290.

¹⁰³ Pace and Faules, *Organizational Communication*.

among police department members was important. Factors such as sharing common goals/teamwork, trust, and information flows (such as a pass-on book, meetings, and briefings) contribute to positive information sharing. However, barriers that restrict the collaborative potential of the organization include work processes, culture, and structural issues. Organizational change will be necessary to remove some of these barriers. Improving information sharing will require leadership to adjust several long-standing practices. The next section discusses important changes that could positively impact information sharing and collaboration within the police department.

C. RECOMMENDATIONS

Collaboration must have a purpose in the organization, and its purpose has never been as evident as it is in today's policing environment, which has seen an increased number of massive and catastrophic events such as school shootings, civil unrest, and weather emergencies. Practicing collaboration daily on a small scale can help police departments be proficient in handling these situations far before a large-scale incident requires it. These recommendations offer guidance on policy, practice, and technology to improve collaboration and information-sharing practices.

(1) Create policy and procedures that support collaboration.

The police department follows many processes to support its organizational goals, and often these areas are directed by department policies. Policy may not be a source of action, but it formally signals the importance the department places on collaborative measures. The policy should adopt procedures that would foster a collaborative environment between work groups, and that promotes and incentivizes information sharing in the police department. Policy is only as good as the implementation of related procedures, which leads into the next recommendation for improvement.

(2) Develop a forum for collaborative environments in the police department.

In police departments, it is often not that officers and detectives want to isolate themselves from communication; it is that they do not have the time nor the means for engagement. In the interviews, patrol officers and detectives often mentioned opportunities

for discussion, information sharing, and building relationships between roles. It was also evident in the network analysis that collaborative styles demonstrated higher ego-alter linkages. The police department should institute round table discussions that include all roles and districts to facilitate the sharing of information and ideas in a common setting. The meetings should provide follow-up on previous cases and current cases, and allow time for information exchange among colleagues. The outcomes of these meetings should not be based on how many cases are solved or metrics; their success should be based on whether the case was solved as a result of collaboration among the work units. Once the focus shifts toward the goal of collaboration among units, previous studies by Gottschalk have shown that metrics or performance follow.¹⁰⁴

(3) Leadership must embrace collaborative changes.

Leadership can change police department culture by embracing collaborative practices and information-sharing forums. Top leaders should set the standard on what is expected in the department for information-sharing and communication practices. Middle management in the organization should reinforce the importance and value of police officers and detectives communicating and establishing relationships. Police officers and detectives should be encouraged to share information among each other to achieve the goal of crime solving. These individuals and teams must be recognized for sharing information and solving crimes collaboratively.

(4) Design and implement innovative technology platforms for sharing information within the police department.

Common barriers to collaboration were related to negative information flows, which include email information overload, limited feedback, and lack of technology in patrol vehicles. Although this study did not focus on information-sharing platforms, it became apparent during the interviews that this was a common area of frustration among employees. The proper use of technology platforms for information sharing may address

¹⁰⁴ Petter Gottschalk, "Predictors of Police Investigation Performance: An Empirical Study of Norwegian Police as Value Shop," *International Journal of Information Management* 27, no. 1 (February 2007): 45.

some of the negative information flow issues. It will also create a common space for all employees to connect and have an opportunity to have input on the work product.

Implementing strategies for overcoming barriers to collaboration at the police department will allow police officers and detectives an opportunity to enhance information sharing. These four recommendations will increase the likelihood that police officers, detectives, and administrators will form bonds and share information. Through these recommendations, it may be possible to solve more crimes and create learning opportunities for department members to share information related to street experiences, cases, and patterns of crime.

APPENDIX A. RECRUITMENT SCRIPT FOR SURVEY

My name is Amanda Kulikowski. I am a graduate student at the Naval Postgraduate School in the Center for Homeland Defense and Security. I am conducting research on information sharing networks at the Novi Police Department. The purpose of this research is to identify individual collaborative styles and their impact on information sharing patterns within the Novi Police Department.

I am inviting you to participate in this research because you are a critical participant in the various stages of the information sharing process. I am requesting your participation with this research. The purpose of this research will be to assess the information sharing habits that may help identify the challenges of communicating in an intra-organizational setting. This research will benefit not only the Novi Police Department with future endeavors by understanding the process, but perhaps other police departments across the nation facing similar challenges. Participation in the Thomas Kilmann Instrument is voluntary.

All sworn members of the Novi Police Department will be given an opportunity to complete the Thomas Kilmann Instrument to measure how each participant handles conflict. Information obtained will be kept confidential and analyzed to identify and explore common themes across conflict-handling.

If you are interested in participating in this research effort, please contact me at 248-727-3835 or akuliko@nps.edu. Dr. Gail Fann Thomas, Naval Postgraduate School Graduate School of Business and Public Policy, may also be contacted at gthomas@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Navy Postgraduate School IRB Chair, Dr. Larry Shattuck, 831-656-2473, lgshattu@nps.edu.

Thank you for your time and I look forward to your feedback.

Amanda Kulikowski

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B. RECRUITMENT SCRIPT FOR SEMI-STRUCTURED INTERVIEWS

My name is Amanda Kulikowski. I am a graduate student at the Naval Postgraduate School in the Center for Homeland Defense and Security. I am conducting research on information sharing networks at the Novi Police Department. The purpose of this research is to identify individual collaborative styles and their impact on information sharing patterns within the Novi Police Department.

I am inviting you to participate in this research because you are a critical participant in the various stages of the information sharing process. I am requesting your participation with this research. The purpose of this research will be to assess the information sharing habits that may help identify the challenges of communicating in an intra-organizational setting. This research will benefit not only the Novi Police Department with future endeavors by understanding the process, but perhaps other police departments across the nation facing similar challenges.

A select number of one-on-one telephonic interviews to allow participants to provide observations, perspectives, and thoughts regarding the organizational approaches used at various phases of the information sharing process. It is anticipated that the interview will last from approximately 15-30 minutes. Secondary interviews will only be needed to clarify information if needed. Information obtained will be kept confidential and analyzed to identify and explore common themes across interviewees. If it is determined that a specific quote from your interview (presented anonymously) would add to the thesis, I will contact you and I can ensure that you are comfortable with the material that will be used before publication.

If you are interested in participating in this research effort, please contact me at 248-727-3835 or akuliko@nps.edu. Dr. Gail Fann Thomas, Naval Postgraduate School Graduate School of Business and Public Policy, may also be contacted at gthomas@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Navy Postgraduate School IRB Chair, Dr. Larry Shattuck, 831-656-2473, lgshattu@nps.edu.

Thank you for your time and I look forward to your feedback.

Amanda Kulikowski

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C. QUANTITATIVE SURVEY

Administered on electronically on Lime

Information Sharing Networks and Collaborative Styles at Novi Police Department

Naval Postgraduate School Consent to Participate in Research

INTRODUCTION:

You are invited to participate in a study entitled, *Assessing the relationship between collaborative styles and information sharing networks at the Novi Police Department*. This research will evaluate conflict handling styles and information sharing networks at the Novi Police Department.

PROCEDURES:

If you agree to participate in this study, you will be subject to a survey designed to identify your individual conflict handling style. The survey will also assess the information sharing procedures and processes at the Novi Police Department. The Novi Police Department sworn personnel will be invited to participate in this research project. Sergeant Amanda Kulikowski, a Master's Degree student at the Naval Postgraduate School, Center for Homeland Defense and Security, will administer the survey. The survey will take approximately 10 minutes to complete.

The survey results will be handled and coded prior to releasing them to the researcher, Sergeant Amanda Kulikowski, by Dr. Gail Fann-Thomas and Dr. Kimberlie Stephens.

LOCATION:

The survey will take place via electronic communications. The survey will take place at a location of the subject's preference/convenience i.e., work, office, home, library, etc.

COST:

There is no cost to participate in this study.

VOLUNTARY NATURE OF THE STUDY:

Your participation in this study is strictly voluntary. If you choose to participate you can change your mind at any time and withdraw from the study. You will not be penalized in any way or lose any benefits to which you would otherwise be entitled if you choose not to participate in this study or to withdraw. The alternative to participating in research is to not participate in research.

POTENTIAL RISKS AND DISCOMFORTS:

The potential risks of participating in this study are:

Any breach of confidentiality could result in your opinions related to the information sharing networks at the Novi Police Department, becoming public record.

ANTICIPATED BENEFITS:

You will not directly benefit from your participation in this research. However, this study may be able to identify recommendations that may impact your professional work environment.

COMPENSATION FOR PARTICIPATION:

No compensation will be offered to participate in this study.

CONFIDENTIALITY AND PRIVACY:

Any information obtained during this study will be kept confidential to the full extent permitted by law. All efforts, within reason, will be made to keep your personal information in your research record confidential, but total confidentiality cannot be guaranteed. At the conclusion of the research, all data collected will be maintained in locked cabinets that prevent access. However, it is possible that the researcher may be compelled to divulge information obtained in the course of this research.

POINTS OF CONTACT:

If you have any questions or comments about the research study, or you experience an injury or have questions about any discomfort you experience while taking part in this study please contact the Principal Investigator, *Dr. Gail Fann-Thomas* at the Naval Postgraduate School Graduate School of Business and Public Policy, gthomas@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Naval Postgraduate School IRB Chair, Dr. Larry Shattuck, (831) 656-2473, lgshattu@nps.edu.

STATEMENT OF CONSENT:

I have read the information provided above. I have been given the opportunity to ask questions and all the questions have been answered to my satisfaction. I have been provided a copy of this form for my records and I agree to participate in this study. I understand that by agreeing to participate in this research and signing this form, I do not waive any of my legal rights.

☐ I consent to participate in the research.

☐ I do not consent to participate in the research.

Participant's signature

Date

SURVEY:

This survey includes three parts: Part I asks you to describe interactions with Novi personnel during your last shift bid (April through October 2017). Part II asks you to describe how you might deal with differences within your district during your last shift bid. Part III includes a few demographic questions.

Part I. Information Sharing Networks

1. Since the beginning of your last shift bid (April 2017), approximately how many times have you communicated to a detective or/officer about crimes occurring in your assigned district?
 - 0-10 times
 - 11-20 times
 - 21-30 times
 - Over 30 times
2. In the last month with whom have you had a face-to-face discussion regarding crimes in your district? (Excluding department-wide/COMPSTAT meetings)¹⁰⁵

Check all that apply

Able	King
Duke	Kinship
Dove	Kilsman
Dicey	Katchy
Frag	Lincoln
Filt	Liza
Free	May
Eddi	Mabel
Eddy	Misty
Edwards	Nordy
Frank	Nooth
Franks	Nysti
Filbar	Penci
Freeze	Plaza
Franklin	Rager
Fester	Realty
Good	Rust
Great	Scout
Gizmo	State
Guest	Sneck

¹⁰⁵ Names are pseudonyms.

Gwert	Stepede
Half	Stevens
Halve	Talia
Harrison	Tily
Hash	Walters
Hobart	Wagon
Hubert	Wagoneer
Jeffer	Wilstick
Jeffrey	Willis
Jezek	Wong
Kaptain	Zips

3. In the last month with whom have you sent a specific email inside the department (not monthly contacts) about crimes or intelligence within your district?¹⁰⁶

Check all that apply

Able	King
Duke	Kinship
Dove	Kilsman
Dicey	Katchy
Frag	Lincoln
Filt	Liza
Free	May
Eddi	Mabel
Eddy	Misty
Edwards	Nordy
Frank	Nooth
Franks	Nysti
Filbar	Penci
Freeze	Plaza
Franklin	Rager
Fester	Realty
Good	Rust
Great	Scout
Gizmo	State
Guest	Sneck
Gwert	Stepede
Half	Stevens
Halve	Talia
Harrison	Tily
Hash	Walters

¹⁰⁶ Names are pseudonyms.

Hobart	Wagon
Hubert	Wagoneer
Jeffer	Wilstick
Jeffrey	Willis
Jezek	Wong
Kaptain	Zips

4. In the last month from whom have you received a specific email inside the department about crimes or intelligence within your district?¹⁰⁷

Check all that apply

Able	King
Duke	Kinship
Dove	Kilsman
Dicey	Katchy
Frag	Lincoln
Filt	Liza
Free	May
Eddi	Mabel
Eddy	Misty
Edwards	Nordy
Frank	Nooth
Franks	Nysti
Filbar	Penci
Freeze	Plaza
Franklin	Rager
Fester	Realty
Good	Rust
Great	Scout
Gizmo	State
Guest	Sneck
Gwert	Stepede
Half	Stevens
Halve	Talia
Harrison	Tily
Hash	Walters
Hobart	Wagon
Hubert	Wagoneer
Jeffer	Wilstick
Jeffrey	Willis
Jezek	Wong
Kaptain	Zips

¹⁰⁷ Names are pseudonyms.

5. How often do you read the intelligence/investigative bulletins distributed?
 - Always
 - Sometimes
 - Never
6. Do you find the intelligence/investigative bulletins useful?
 - Yes
 - NoExplain:
7. Do you view the COMPSTAT PowerPoint on the television screen or email if you are not at the COMPSTAT meeting?
 - Yes
 - No

Part II. Collaborative Style (Thomas-Kilmann Conflict Mode Instruction – TKI)

This part of the survey asks you to consider how you handle differences with others within your district.

The following 30 pairs of statements describe possible behavioral responses. For each pair, please circle the letter (“A” or “B”) of the statement that best characterizes your behavior.

In many cases, neither “A” nor the “B” statement may be very typical of your behavior, but please select the response you would be more likely to use.

Sample questions:

1. A. There are times when I let others take responsibility for solving the problem.
B. Rather than negotiate the things on which we disagree, I try to stress those things on which we both agree.
2. A. I try to find a compromise solution.
B. I attempt to deal with all of his/her and my concerns.

Part III. Demographic Questions

1. What area do you identify with in the police department?
 - Administration
 - Patrol
 - Detective Bureau

2. What is your assigned district?

- ☐ District 1
- ☐ District 2
- ☐ District 3
- ☐ District 4
- ☐ Not Applicable

Thank you for taking time to complete this survey.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

- Badjor, Paula, and Iwona Grabara. "The Role of Information System Flows in Fulfilling Customers' Individual Orders." *Journal of Studies in Social Sciences* 7, no. 2 (2014): 96–106.
- Bendersky, Corinne, and Nicholas A. Hays. "Status Conflict in Groups." *Organization Science* 23, no. 2 (2012): 323–340.
- Ben-Yoav, Orly, and Moshe Banai. "Measuring Conflict Management Styles: A Comparison between the MODE and ROCI-II Instruments Using Self and Peer Ratings." *International Journal of Conflict Management* 3, no. 3 (1992): 237–247.
- Brewer, Neil, Patricia Mitchell, and Nathan Weber. "Gender Role, Organizational Status, and Conflict Management Styles." *International Journal of Conflict Management* 13, no. 1 (2002): 78–94.
- Chen, Hsinchun, Jenny Schroeder, Roslin V. Hauck, Linda Ridgeway, Homa Atabakhsh, Harsh Gupta, Chris Boarman, Kevin Rasmussen, and Andy W. Clements. "COPLINK Connect: Information and Knowledge Management for Law Enforcement." *Decision Support Systems* 34, no. 3 (2003): 271–285.
- Chun, Jinseok S., and Jin Nam Choi. "Members' Needs, Intragroup Conflict, and Group Performance." *Journal of Applied Psychology* 99, no. 3 (2014): 437–450.
- Daft, Richard. *Organization Theory and Design*, 11th edition. Mason, OH: Cengage Learning, 2012.
- Epstein, Jennifer A., and Judith M. Harackiewicz. "Winning Is Not Enough: The Effects of Competition and Achievement Orientation on Intrinsic Interest." *Personality and Social Psychology Bulletin* 18, no. 2 (1992): 128–138.
- Euwema, Martin C., Nicolien Kop, and Arnold B. Bakker. "The Behaviour of Police Officers in Conflict Situations: How Burnout and Reduced Dominance Contribute to Better Outcomes." *Work & Stress* 18, no. 1 (2004): 23–38.
- Giuffe, Katherine. "How Do Communities Foster Creativity and Innovation." In *Communities and Networks: Using Social Network Analysis to Rethink Urban and Community Studies*, 176–195. Malden, MA: Polity Press, 2013.
- Gottschalk, Petter. "Predictors of Police Investigation Performance: An Empirical Study of Norwegian Police as Value Shop." *International Journal of Information Management* 27, no. 1 (February 2007): 36–48.

- Gruenfeld, Deborah H., Elizabeth A. Mannix, Katherine Y. Williams, and Margaret A. Neale. "Group Composition and Decision Making: How Member Familiarity and Information Distribution Affect Process and Performance." *Organizational Behavior and Human Decision Processes*, 67, no. 1 (1996): 1–15.
- Hanneman, Robert A., and Mark Riddle. *Introduction to Social Network Methods*. Riverside: University of California Riverside, 2005. <http://faculty.ucr.edu/~hanneman/>.
- Hinds, Pamela J., and Diane E. Bailey. "Out of Sight, Out of Sync: Understanding Conflict in Distributed Teams." *Organization Science* 14, no. 6 (November–December 2003): 615–632.
- Hollenback, John R., and Bradley B. Jamieson. "Human Capital, Social Capital, and Social Network Analysis: Implications for Strategic Human Resource Management." *Academy of Management Perspectives* 29, no. 3 (2015): 370–385.
- Hu, Lung-Teng. "Same Bed, but Different Dreams? Comparing Retired and Incumbent Police Officers' Perceptions of Lost Knowledge and Transfer Mechanisms." *Crime, Law and Social Change* 53, no. 4 (2010): 429–432.
- Huxham, Chris, and Siv Vangen. *Managing to Collaborate: The Theory and Practice of Collaborative Advantage*. London: Routledge, 2013.
- Inbau, Fred E., John E. Reid, Joseph P. Buckley, and Brian C. Jayne. *Criminal Interrogation and Confessions*. Burlington, MA: Jones & Bartlett, 2011.
- Jehn, Karen A. "A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict." *Administrative Science Quarterly* (1995): 256–282.
- . "A Qualitative Analysis of Conflict Types and Dimensions in Organizational Groups." *Administrative Science Quarterly* (1997): 530–557.
- Killman, Ralph H., and Kenneth W. Thomas. "Developing a Forced-Choice Measure of Conflict-Handling Behavior: The 'MODE' Instrument." *Educational and Psychological Measurement* 37, no. 2 (1977): 309–325.
- Knocke, David, and Song Yang. *Social Network Analysis Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: SAGE, 2008.
- Luen, Tan Woei, and Suliman Al-Hawamdeh. "Knowledge Management in the Public Sector: Principles and Practices in Police Work." *Journal of Information Science* 27, no. 5 (2001): 311–318.
- Marjan, Laal. "Positive Interdependence in Learning." *Procedia Social and Behavioral Sciences* 93 (October 2013): 1433–1477. <https://doi.org/10.1016/j.sbspro.2013.10.058>.

- McPherson, Miler, Lynn Smith-Lovin, and James M. Cook. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27, no. 1 (2001): 415–444.
- Michigan Commission on Law Enforcement Standards. "Licensing Standards for Michigan Law Enforcement Officers." January 2, 2017. www.michigan.gov/documents/mcoles/Standards_List-1-17_web_579092_7.pdf.
- Moye, Neta A., and Claus W. Langfred. "Information Sharing and Group Conflict: Going beyond Decision Making to Understand the Effects of Information Sharing on Group Performance." *International Journal of Conflict Management* 15, no. 4 (2004): 381–410. <https://doi.org/10.1108/eb022919>.
- Novi Police Department. *Novi Police Department Organizational Chart*, Directive 200. Novi, MI: Novi Police Department, 2016.
- Ortmeier, P.J. *Policing the Community: A Guide for Patrol Operations*. Indianapolis, IN: Merrill, 2002.
- Ortmeier, P.J., and Edwin Meese III. *Leadership, Ethics, and Policing: Challenges for the 21st Century*, 2nd edition. Upper Saddle River, NJ: Prentice Hall, 2010.
- Pace, R. Wayne, and Don F. Faules. *Organizational Communication*, 2nd ed. Upper Saddle River, NJ: Prentice Hall, 1989.
- Paoline, Eugene A. "Taking Stock: Toward a Richer Understanding of Police Culture." *Journal of Criminal Justice* 31, no. 3 (2003): 199–214.
- Prosecuting Attorneys Association of Michigan. "Steps in a Criminal Case." Accessed January 22, 2018, <https://www.michiganprosecutor.org/index.php/steps-in-a-criminal-case>.
- Rahim, M. Afzalur. *Managing Conflict in Organizations*. New Brunswick, NY: Transaction Publishers, 2015.
- Raye, Janna. "Fractal Organisation Theory." *Journal of Organisational Transformation & Social Change* 11, no. 1 (2014): 50–68.
- Schaubhut, Nancy A. *Technical Brief for the Thomas–Kilmann Conflict Mode Instrument: Description of the Updated Normative Sample and Implications for Use*. Sunnyvale, CA: CPP, 2007.
- Simons, Tony L., and Randall S. Peterson. "Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust." *Journal of Applied Psychology* 85, no. 1 (2000): 102–111.

- Smoot, Sean Michael. "The President's Task Force on 21st Century Policing: Procedural Justice, Policing, and Public Health." *Southern Illinois University Law Journal* 40 (2016): 427–561.
- Stasser, Garold, and Dennis Stewart. "Discovery of Hidden Profiles by Decision-Making Groups: Solving a Problem versus Making a Judgment." *Journal of Personality and Social Psychology* 63, no. 3 (1992): 426–434.
- Sun, Ivan Y. "A Comparison of Police Field Training Officers' and Nontraining Officers' Conflict Resolution Styles: Controlling Versus Supportive Strategies." *Police Quarterly* 6, no. 1 (2003): 22–50.
- Sun, Ivan Y., and Brian K. Payne. "Racial Differences in Resolving Conflicts: A Comparison between Black and White Police Officers." *Crime & Delinquency* 50, no. 4 (2004): 516–541.
- Thibault, Edward A., Lawrence M. Lynch, R. Bruce McBride, and Gregory Walsh. *Proactive Police Management*, 9th edition. London: Pearson, 2015.
- Thomas, Kenneth W., and Ralph H. Kilmann. *Thomas–Kilmann Conflict Mode Instrument: Profile and Interpretive Report*. Sunnyvale, CA: CPP, 2008.
- Tjsovold, Dean. "Cooperative and Competitive Dynamics within and between Organizational Units." *Human Relations* 41, no. 6 (1988): 425–436.
- Van de Vliert, Evert, and Boris Kabanoff. "Toward Theory-Based Measures of Conflict Management." *Academy of Management Journal* 33, no. 1 (1990): 199–209.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California