

Is Being a Police Officer Fundamental for Processing Crime Scenes?: Investigating Civilianization in Canadian Forensic Identification Units

**by
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Abstract

Crime Scene Investigation within Canada has traditionally been a function carried out by police officers. Recently, civilians have been introduced into Canadian Forensic Identification Units (FIUs) in a limited capacity, but the experiences of civilian personnel have yet to be explored. The current study uses a qualitative thematic analysis of interviews conducted with 45 forensic identification personnel, regarding their experiences with the integration of civilians into FIUs across Canada to better understand the cultural barriers that impede civilians from successfully integrating into law enforcement. The aim of this study was to explore the benefits and challenges of civilianization. Though the findings suggest that there are extensive benefits associated with civilianizing FIUs, there are deeply rooted systemic challenges hindering entirely civilianized units from coming into fruition. The implications of these findings for law enforcement policy and future research are explored.

Keywords: Civilianization; Crime Scene Investigation; Forensic Identification; Law Enforcement; Sworn Officers; Civilian Members

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List of Acronyms

CFIM	Civilian Forensic Identification Member
CPC	Canadian Police College
CSI	Crime Scene Investigation/Crime Scene Investigator
FIA	Forensic Identification Assistants
FIO	Forensic Identification Officer
FIS	Forensic Identification Specialist
FIU	Forensic Identification Units
FRO	First Responding Officer
FSA	Forensic Services Assistant
OPC	Ontario Police College
OPP	Ontario Provincial Police
RCMP	Royal Canadian Mounted Police
SOCO	Scenes of Crime Officer
UK	United Kingdom
US	United States

Glossary

Civilian(s)/Civilian members/Civilian Participants	Members of a police service hired for specialized units that do not carry any arrest powers, use of force options and cannot enforce the law. This thesis will refer to this category of employee as civilians or civilian members interchangeably. When directly referencing something stated during the interview, they will be referred to as civilian participants.
Crime Scene Investigator (Canadian)	Specially trained sworn or civilian personnel from law enforcement agencies that utilize scientific techniques to document, identify and collect evidence for further analysis from crime scenes.
Forensics/Forensic Identification	For this thesis, the term forensics refers to the application of forensic science into law enforcement, known as forensic identification. This thesis will use forensics and forensic identification interchangeably.
Police Driven Science	Police driven science differs from pure scientific endeavors in that the former is an instrument of law enforcement to secure a conviction through individualization while pure science does not require application for validation and is centered around hypothesis testing and scientific methods.
Science	The use of various disciplines, e.g., biology, physics, and chemistry to interpret evidence.
Scientifically More Informed	An enhanced understanding of scientific techniques that inform evidence collection, increased use of evidence-based techniques, keeping up with the science to know what is new (e.g., which techniques might destroy DNA), understanding and engaging in forensic science research.
Sworn Officer/ Sworn Participants	Members of a police service who have taken an oath, carry the lawful authority to arrest, utilize use of force options and enforce the law. Throughout this thesis, sworn will be referred to as sworn officers when discussing this category of employee in a general sense. Sworn participants is used when referencing something said by a sworn officer in the current studies interviews. I am directly referencing something stated during the interview with a sworn officer. All Forensic Identification Specialists (FIS), referred to in the results, are sworn officers.

Chapter 1.

Introduction

Forensic evidence obtained through crime scene investigation has been identified as one of, if not the most crucial aspects of a criminal investigation. Forensic evidence may provide insight into the who, what, where, when and why of a specific event (Watkins et al., 2013). Crime Scene Investigators (CSIs) attend crime scenes to collect, document and preserve forensic evidence that may be probative to investigations (Anderson, 2017; Pollanen et al., 2012). The work of CSIs represents a critical juncture between the specific event in question, police investigations, actors in a court of law, and case outcomes (Julian & Kelty, 2015). Thus, it is paramount the front end of a police investigation is conducted in a reliable manner to ensure the quality of evidence adheres to the admissibility thresholds in a court of law (Miller & Massey, 2015; Nowlin & Brockman, 2018; Watkins et al., 2013). Therefore, it is critical that crime scene examiners consider how evidence will be used by the courts in the pursuit of justice (Resnikoff et al., 2015; J. Robertson et al., 2014; Wilson-Kovacs, 2014).

As the collection of forensic evidence becomes more technical, scientific, and sophisticated, there must be a heightened focus on the formal education attained by crime scene investigators (Capsambelis, 2002; Pollanen et al., 2012). This has led scholars to question whether crime scene examination is a scientific endeavour that requires practitioners to be scientifically educated or if it is simply a technical task to be performed by generalist police officers (Crispino, 2008; Harrison, 2006; Kelty, 2011; J. Robertson et al., 2014). Police officers are not scientists by nature, which is why scholars suggest that crime scene investigation is an “occupational niche driven by the scientification of police work” (Ericson & Shearing, 1986 as cited in Wilson-Kovacs, 2014, p.765).

Within Canadian law enforcement, sworn officers have traditionally fulfilled the role of crime scene investigators within Forensic Identification Units (FIUs) (Anderson, 2017; Pollanen et al., 2012). In recent years, it has been acknowledged that a disconnect exists between the skills needed for specialized police functions and the skills required to become a police officer (Chess, 1960; “The Expert Panel”, 2014). Historically,

law enforcement agencies have deemed high school education sufficient for becoming a police officer and only in recent years have select agencies started requiring post-secondary education (Calgary Police Service, 2023; J. Robertson, 2012; Royal Canadian Mounted Police, 2020; Saldivar, 2017; Toronto Police Service, 2023). Thus, the academic qualifications of police officers who enter units, such as Forensic Identification, must be critically analyzed. Acknowledging that the generalist nature of contemporary policing may not meet the demands for greater specialization in policing has led to the evolution of specialty police functions from a sworn world to incorporating civilian personnel with honed expertise (Griffiths et al., 2006; Kiedrowski et al., 2017).

While the introduction of civilian personnel into Canadian FIUs remains in its infancy, fully civilianized crime scene units are commonplace internationally. Both the United Kingdom (UK) and the United States (US) have successfully demonstrated that it is not necessary to have officers with a gun and a badge processing forensic evidence from crime scenes. Building on the work of Leuprecht (2019), there remains a mindset in Canada that the skills of a police officer and their use of force equipment is an essential element to investigating crime scenes. This mindset has contributed to a culture in policing that perceives civilians as being incapable of understanding the intricacies associated with police functions. While many sworn officers oppose the adoption of civilian personnel, their prominence within police organizations is continuously developing. As Kiedrowski et al. (2017) notes, by 2014, civilians encompassed 29% of the total police personnel and the number of civilian employees is growing twice as fast as the number of sworn officers. Much of the push for civilianization has arisen as a result of staffing shortages within policing agencies (Kiedrowski et al., 2017; “The Expert Panel”, 2014). Beyond numeric representation and financial benefits, it is crucial that research examines the experiences of civilians and their impact within policing, given the rapid shift towards civilianization in recent years. Given the transitory nature of contemporary policing roles, civilians represent an invaluable asset to the preservation of expertise within law enforcement.

Scholars have examined civilianization in the Canadian context but have focused primarily on the financial benefits associated with civilians (Griffiths et al., 2006; Kiedrowski et al., 2017, 2019). While the work of Griffiths et al. and Kiedrowski et al. briefly discussed civilians in specialty police units, the purpose of their research was to examine the economic benefits associated with civilians across general departments

within law enforcement. Thus, their research did not examine whether civilianization improved the reliability and effectiveness within specialty units like forensic identification. Hence, little is known about the impact of civilian personnel in Canadian contexts and even less is known about their contributions to FIUs. The current study seeks to fill the existing gaps by conducting semi-structured interviews with crime scene personnel, sworn and civilian, and forensic instructors. Through an examination of the benefits and challenges of civilians in FIUs, the following research questions were explored: a) what is the relationship between policing and crime scene investigation in a Canadian context, b) what skills and qualifications are necessary for CSI personnel and, c) how is the current model functioning? Ultimately, the findings highlight numerous systemic barriers that impede civilianization from being successful in FIUs. In addition, the findings also uncover the extensive challenges faced by sworn officers in specialty units which may indicate a greater need for civilian expertise within FIUs.

In the second chapter of this thesis, I explore relevant literature which includes an overview of the current structure of Canadian law enforcement, the organizational culture of hierarchical institutions, an examination of international crime scene investigation and to conclude, an exploration into crime scene investigation in Canada. Chapter 3 introduces the current study and the methods used to collect the data. Chapter 4 discusses the findings that emerged from the interviews completed with forensic identification personnel. Finally, chapters 5 and 6 present a discussion and conclusion, including how the current study contributes to the existing literature and suggestions for future research and policy implications.

Chapter 2.

Literature Review

This chapter presents four themes found in academic literature related to civilianization of Forensic Identification Units. It begins with an overview of contemporary law enforcement structures, including a discussion of the hierarchical nature of policing and establishing definitions of sworn and civilian personnel. Next, it explores literature relating to the culture of policing to highlight the us versus them mentality within law enforcement that may contribute to sworn officers resisting civilianization. Then I summarize research relating to crime scene investigation in the US and UK, as both countries offer critical insight into fully civilianized crime scene units. Lastly, I explore Canadian literature examining crime scene investigation to set the stage for this study which examines civilianization of forensic identification units across Canada.

2.1. Current Canadian Law Enforcement Structure

Today, the structure of Canadian law enforcement remains unique, both in its complexity and geographical vastness (Campbell et al., 2021; Griffiths, 2016; Ricciardelli & Griffiths, 2017; Seagrave, 1997; “The Expert Panel”, 2014). Policing jurisdiction and responsibilities are divided amongst the Federal, provincial and municipal governments (Brodeur, 2010; Griffiths, 2016; N. Robertson, 2012; Seagrave, 1997). With three levels of government involved in the policing landscape, there are multiple categories of police services offered to Canadians across the country (Brodeur, 2010; Campbell et al., 2021; Ricciardelli & Griffiths, 2017; N. Robertson, 2012; “The Expert Panel”, 2014).

As the country’s largest police service, the RCMP holds influential roles throughout all three levels of policing (Griffiths, 2016; N. Robertson, 2012; “The Expert Panel”, 2014). The multifaceted role of the RCMP, results in substantial variation in its role and responsibilities as an agency across the country (N. Robertson, 2012; “The Expert Panel”, 2014). The RCMP is responsible for enforcing federal statutes throughout all Provinces and Territories (Campbell et al., 2021; Griffiths, 2016; Seagrave, 1997). Not only does the RCMP provide policing services at the Federal level, but they also provide services municipally and provincially, known as contract policing (Campbell et al., 2021;

Griffiths, 2016; Perrott & Kelloway, 2011; N. Robertson, 2012; Seagrave, 1997; Sharman, 1977; “The Expert Panel”, 2014). In fact, as of 2019, it was estimated that 70% of RCMP personnel are involved in contract policing across the country (Public Safety Canada, 2019).

The passage of the Canadian constitution in 1867 imposed that provincial and territorial governments were responsible for the administration of justice which resulted in the creation of provincial and municipal policing agencies (Campbell et al., 2021; Griffiths, 2016; Sharman, 1977). In most Canadian provinces, the RCMP are contracted by provincial governments to serve as the provincial police (Campbell et al., 2021; Griffiths, 2016; Sharman, 1977). Three exceptions are the Ontario Provincial Police (OPP), Royal Newfoundland Constabulary and the Sûreté Du Québec as they remain the only provinces with independent provincial police services (Campbell et al., 2021; Griffiths, 2016; Seagrave, 1997; Sharman, 1977; “The Expert Panel” 2014). Provincial police enforce provincial laws as well as the *Criminal Code* (Campbell et al., 2021; Griffiths, 2016; N. Robertson, 2012).

Municipalities are policed by local municipal forces or contract services to the RCMP or provincial police services, like OPP (Griffiths, 2016; “The Expert Panel”, 2014). In British Columbia, the provincial government has contracted the RCMP to act as municipal police in various cities; hence, the largest number of RCMP members are found in BC (Campbell et al., 2021; Griffiths, 2016). However, many communities throughout Canada have maintained their own independent municipal forces and these services vary in size dependent upon their location (Campbell et al., 2021; N. Robertson, 2012; Seagrave, 1997). Municipal services uphold jurisdiction within city boundaries and enforce the Criminal Code, provincial statutes, municipal bylaws and some federal statutes (Campbell et al., 2021; Griffiths, 2016; Seagrave, 1997).

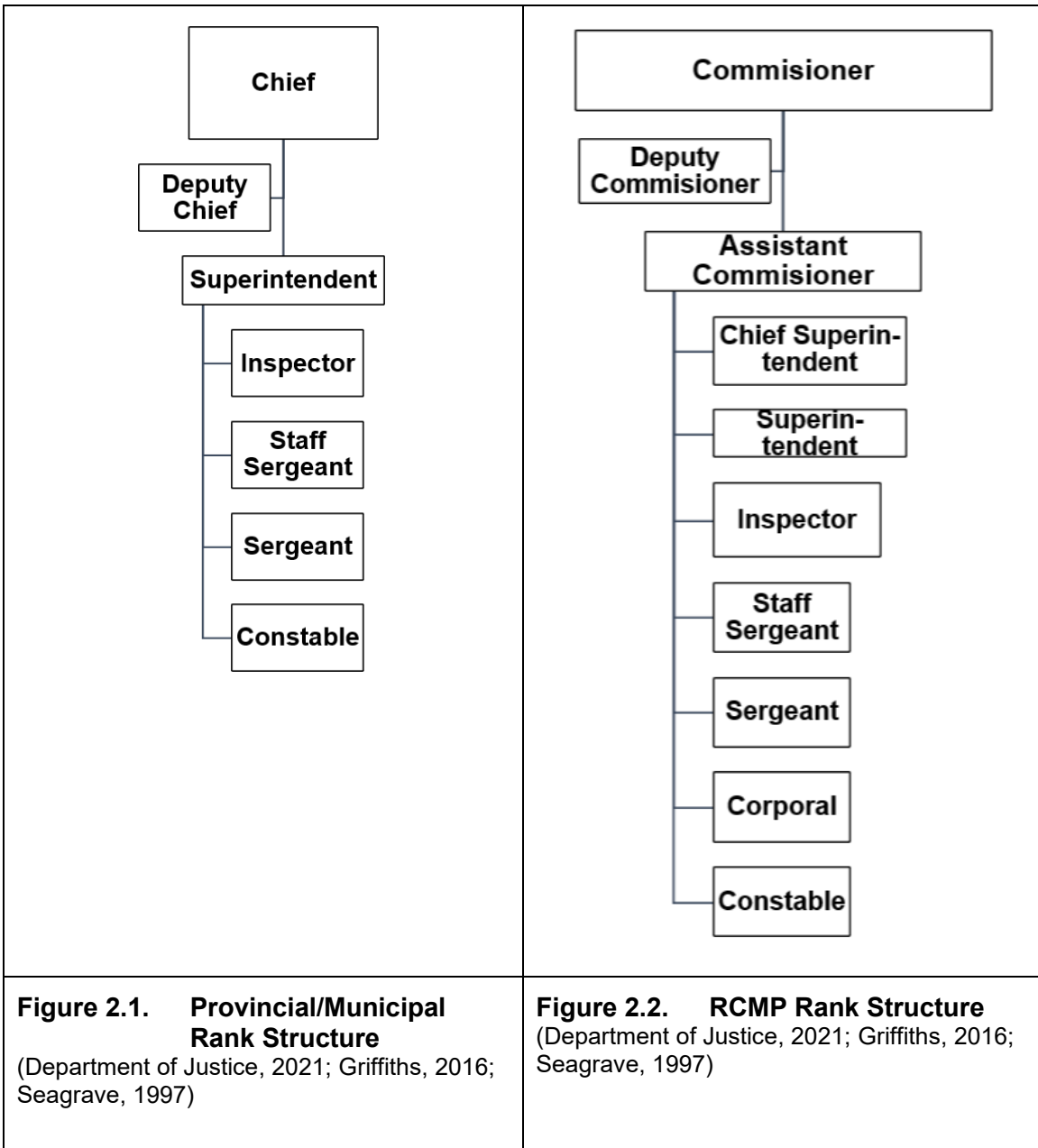
2.1.1. The Hierarchical Structure of Paramilitary Organizations

Canadian policing is characterized by its para-military nature and the hierarchical rank structure that guides internal operations (Griffiths, 2016; Kiedrowski et al., 2017; Seagrave, 1997). Canadian law enforcement encompasses a number of different policing organizations, most of which follow similar rank structures with slight variation (Department of Justice, 2021; Seagrave, 1997). Scholars have suggested RCMP's

organizational size and structure to be more hierarchical and para-military than municipal organizations (Perrott & Kelloway, 2011; Seagrave, 1997). Ultimately, the organizational structure depends on the size, location and composition of the service (Department of Justice, 2021; Seagrave, 1997). Typically, the rank structure includes three levels: a) senior management, b) middle management, and c) front-line personnel (Department of Justice, 2021). As outlined by “The Expert Panel” (2014), police leaders in Canada are established by promotion within the ranks of the organization rather than recruiting leadership roles externally.

The rank structure in policing is closely aligned with military organization models, from the titles associated with rank, such as “Corporal or Sergeant” and the uniform insignia reflecting a person’s status within the hierarchy (Kiedrowski et al., 2017; Seagrave, 1997). Furthermore, the rank structure provides a cohesive chain of command – with each rank reporting directly to the one directly above (Chappell & Lanza-Kaduce, 2010; Kiedrowski et al., 2017; McKay, 2014). It not only creates clear levels of authority but is symbolic of individual status levels (Brough et al., 2016). Figures 2.1 and 2.2 demonstrate the rank structure found within provincial and municipal agencies, as well as the RCMP. In addition to the command hierarchy, para-military organizations follow rigid rule systems and complex divisions of labor (Chappell & Lanza-Kaduce, 2010; Seagrave, 1997). Those positioned at the top of the hierarchy, e.g., management, are afforded substantial power and authority, while those at the bottom are there to maintain operational standards, efficiency and accountability (Chappell & Lanza-Kaduce, 2010; McKay, 2014; Seagrave, 1997).

Cultural variations are found across roles and ranks within the hierarchy (Brough et al., 2016). Not only do role divisions highlight status, they also impact how officers are treated (Brough et al., 2016). In 2016, Brough et al. conducted a study that found police roles requiring a high degree of mental and physical toughness, such as tactical response units, were regarded as more valuable. These findings indicate that officers who are specially trained to resolve violent situations are seen as having more cultural credit than those who are not. Whereas officers in roles such as traffic control were deemed lower status and the role of traffic was not considered real police work (Brough et al., 2016).



Hierarchical structures and para-military organizations are not without their criticisms and challenges. Some agencies, such as the Edmonton Police Service and the RCMP, have attempted to “flatten the hierarchy” by removing middle management positions, such as inspectors (Department of Justice, 2021; Seagrave, 1997). This attempt to flatten existing hierarchies was unsuccessful as these positions remain intact today within both previously mentioned agencies (Edmonton Police Service, n.d.; Royal Canadian Mounted Police, 2015). Others have argued that the culture of policing is deeply entrenched within the organizational structure (Green, 2000 as cited in McKay,

2014, p.555). Specifically, the policing culture is centered around power and the levels of power associated with various ranks which can contribute to toxic work environments and the “us versus them” mentality that remains the cornerstone of policing culture (Chappell & Lanza-Kaduce, 2010; McKay, 2014). Policing culture is described as secretive, protective, loyal, militaristic, conservative, and prejudicial (McKay, 2014; Seagrave, 1997). Together, these values create a culture that honors a “blue code of silence” and frowns upon speaking out, especially against superiors (McKay, 2014). Organizational culture will be explored in further detail in sections to follow.

2.1.2. Defining Law Enforcement Personnel

This section of the literature review examines how scholars define sworn officer and civilian roles within Canadian law enforcement. Due to the lack of specificity found across the existing literature related to operationalizing such roles, I then outline how this thesis defines sworn and civilian personnel.

2.1.2.1. Sworn Police Officers

Reaching consensus about how police officer roles are defined in Canada is challenging for both police personnel and academics (Lithopoulos & Rigakos, 2005; McGrath & Mitchell, 1981). While police officers are legally defined through Criminal Code legislation as to their powers and duties, defining their operational roles are more nuanced. A primary challenge is constructing a definition that encompasses the many roles fulfilled by police (Campbell et al., 2021; Forst, 2000; Lithopoulos & Rigakos, 2005; McGrath & Mitchell, 1981; N. Robertson, 2012; Seagrave, 1997; “The Expert Panel”, 2014). As McGrath & Mitchell (1981) stated, “they fulfill so many roles that even police themselves are not sure what their full role is” (p.77). Historically, the primary function of police was to enforce criminal law but today, they wear many hats (Campbell et al., 2021; Lithopoulos & Rigakos, 2005; McGrath & Mitchell, 1981; N. Robertson, 2012; “The Expert Panel”, 2014).

One primary challenge is the substantial variation in the standards for recruit training across the nation because the entrance requirements for education and training are provincially set (Johnson et al., 2007 as cited in “The Expert Panel”, 2014; Sundberg et al., 2021). As Schultze (2007) states, “in an accredited profession, members have the exclusive right to practice under a title, which is usually restricted to those with unique

knowledge and skills. Those qualifications are initially evaluated by formal education and training” (as cited in “The Expert Panel”, 2014, p.113). A lack of standardized requirements and training has led the policing profession to struggle in establishing a shared designation of roles (Montgomery, 2021; “The Expert Panel”, 2014).

Despite challenges in identifying a definitive role for Canadian police, some scholars have offered broad scope definitions. Generally, the primary duties of Canadian police officers as set out by police statutes are: 1) crime prevention, 2) emergency response, 3) maintain public peace and order, 4) detect and apprehend offenders, and 5) protect life and property (Forst, 2000; Kiedrowski et al., 2017; McGrath & Mitchell, 1981; N. Robertson, 2012; Seagrave, 1997). In 2020, Statistics Canada outlined that sworn officers consist of “commissioned officers, non-commissioned officers and constables” (Conor et al., 2020, p.6). **Commissioned officers** include personnel who have obtained senior officer status, normally at the rank of lieutenant or higher, such as chief, deputy chiefs, staff superintendents, superintendents, staff inspectors, inspectors, senior constables, lieutenants, and other equivalent ranks. **Non-Commissioned officers** include personnel between the ranks such as corporal sergeant majors, sergeant majors, staff sergeant majors, staff sergeants, sergeants, corporals and other equivalent ranks. **Constables** consist of 1st, 2nd, 3rd and 4th class constables. (Conor et al., 2020, p.6)

The Statistics Canada definition lacks insight into exactly how sworn officer roles are defined as its vague and focuses on the hierarchical rank structure within policing. For this study, I define sworn officers as, members of a police service who have taken an oath, carry the lawful authority to arrest, utilize use of force options and enforce the law.

The generalist model of policing in Canada requires the frequent rotation of sworn officers through various departments and roles within their agency (Alderden & Skogan, 2014; Campbell et al., 2021; Forst, 2000; Kiedrowski et al., 2017). Frequent rotation of assignment allows officers to gain skills in multiple areas of policing while building upon the concepts taught in foundational police training provided to new recruits (N. Robertson, 2012; “The Expert Panel”, 2014). Subsequently, some argue that sworn officers lack specialist training and credentials due to the frequent rotation from one assignment to the next (Forst, 2000; Toronto Police Services Board, 2013). In recent years, scholars have criticized the generalist model and its ability to adapt to the evolving

landscape of crime in North America (Kiedrowski et al., 2017; “The Expert Panel”, 2014). Technological innovations have not only made crime more complex but have simultaneously challenged current police workforce structures (N. Robertson, 2012; “The Expert Panel”, 2014).

Though routine calls for service have traditionally required law enforcement generalists, there has been a shift towards the use of civilians in specialized fields as they possess the skills, knowledge and higher education that are often difficult for police to acquire (Kiedrowski et al., 2017; “The Expert Panel”, 2014). Scholars argue police organizations should incorporate a mix of civilian specialized personnel with sworn officers to adequately address the changing nature of society and policing (Alderden & Skogan, 2014; Forst, 2000; “The Expert Panel”, 2014; Toronto Police Services Board, 2013).

2.1.2.2. Civilians

Civilianization is not a new concept within law enforcement; however, since 2002, the number of civilian personnel employed by police agencies has increased substantially (Alderden & Skogan, 2014; Chess, 1960; Forst, 2000; Griffiths et al., 2006; Kiedrowski et al., 2019; Seagrave, 1997; “The Expert Panel”, 2014). Civilianization involves the shifting of tasks previously fulfilled by sworn officers to civilian employees (Forst, 2000; Seagrave, 1997; “The Expert Panel”, 2014). For example, emergency dispatch services was a role fulfilled exclusively by sworn officers in the 1960s but by the 1990s shifted to a fully civilianized role (Forst, 2000; Kiedrowski et al., 2017). While civilianization has been labelled the most notable change to law enforcement structures, it remains controversial as it challenges the belief that policing functions must only be carried out by sworn officers (Alderden and Skogan, 2014; Kiedrowski et al., 2017). Prior to civilians being introduced, there was a heavy reliance on sworn officers in all roles of law enforcement (Forst, 2000; “The Expert Panel”, 2014). In fact, by 2015 “29%” of the total police personnel within Canada were civilians, which was an increase of “26%” from a decade earlier (Hutchins, 2015 as cited in Kiedrowski et al., 2019, p.207).

Similar to sworn personnel, scholars’ definitions of civilian personnel are vague (Alderden & Skogan, 2014; Forst, 2000; Kiedrowski et al., 2017). Griffiths et al. (2006) defines civilianization as “the practice of assigning non-sworn (civilian) employees to conduct police work that does not require the authority, special training, or credibility of a

sworn police officer” (p.8). The definition provided by Griffiths et al. (2006) diminishes the diverse skill sets and specialized proficiencies that civilians bring to policing agencies. Scholars have cited Forst’s (2000) definition which indicates civilianization is, “law enforcements hiring of nonsworn personnel to replace or augment its corps of sworn officers, typically with the aims of reducing costs and improving service” (p.23). This definition provides insight into the role that civilians play within the organization, yet it fails to outline exactly how civilian employees differ from their sworn counterparts. For this study, I define civilians as: civilian members of a police service are hired for specialized units but do not carry any arrest powers, use of force options and cannot enforce the law (Davis et al., 2009 as cited in Kiedrowski et al., 2017).

Data reveal that three Canadian agencies have the largest number of civilian employees: the Ontario Provincial Police, the Royal Canadian Mounted Police, and the Toronto Police Service (Kiedrowski et al., 2017). However, considerable variation in the number of reported civilian personnel across municipal agencies remain (Kiedrowski et al., 2017). Griffiths et al. (2015) identified three questions that policing leadership must consider prior to implementing civilian personnel:

- 1) Does the position require law enforcement powers (e.g., powers of arrest, use of force, statutory requirement, and carrying a firearm)?
- 2) Are the skills, training, experience, or credibility of a sworn police officer required to fulfil the duties of the position?
- 3) Can a specially trained civilian fulfil the requirements of the position? (p.179).

There are multiple proposed rationales as to why civilians were initially introduced into policing. Some scholars suggest that not every police duty requires police powers and thus, can be fulfilled at substantially lower costs (Alderden & Skogan, 2014; Forst, 2000; Griffiths et al., 2006; Schwartz et al., 1975 as cited in Kiedrowski et al., 2017, Association of Municipalities Ontario, 2015 as cited in 2019; Toronto Police Services Board, 2013). Alderden & Skogan (2014) note that civilians are frequently referred to as “attractive hires because they are cheaper, more efficient, and easier to hire and lay off than sworn officers” (p.18). Though cost saving measures are certainly important, future research should examine whether the quality of work differs in any capacity.

Another rationale is that civilians relieve sworn personnel from administrative duties and allow officers to dedicate more of their time to patrol activities (Kiedrowski et

al., 2017; "The Expert Panel", 2014; Toronto Police Services Board, 2013). Civilians also provide additional support to sworn personnel which mitigates the ever-increasing workload sworn officers encounter (Griffiths et al., 2006; Kiedrowski et al., 2019). Further, civilians broaden the talent pool available within policing as they offer specialized skill sets that may not be found within sworn personnel (Boyd et al., 2011; Griffiths et al., 2006; "The Expert Panel", 2014). Initially hired for clerical support or semi-skilled administrative positions, civilian roles have evolved to positions that are complex and specialized in nature (Forst, 2000; Kiedrowski et al., 2019; "The Expert Panel", 2014). Today, civilians commonly occupy roles within police that require specialized knowledge and training such as dispatch services, investigative support for economic and cyber-crimes, crime analysts, forensic scientists, computer specialists, crime scene technicians, and other forms of specialized support for criminal investigations (Alderden & Skogan, 2014; Forst, 2000; King, 2009 as cited in Kiedrowski et al., 2017, 2019; King & Wilson, 2014).

Despite the growing interest in including more civilians in the Canadian policing landscape, Alderden & Skogan (2014) reiterate that little is known about the contributions of civilians in police settings. Further, they suggest that much of what is written about civilians in policing involves "numeric descriptions and discussions of the presumed advantages of hiring them in large numbers" (p.260). In conducting a review of the Canadian literature relating to civilianization, this claim remains true. Only a few Canadian studies of the impact of civilians on law enforcement efficiency and effectiveness have been conducted (Griffiths et al., 2006; Kiedrowski et al., 2017, 2019). Kiedrowski et al. (2019) suggests scholars examine civilianization in relation to "preventing and solving crimes and public order, organizational cohesion, employee productivity, labour relations, job satisfaction, employee turnover, morale, and how it impacts the traditional organizational culture of police" (p.3).

A previous study by Kiedrowski et al. (2019) sought to determine rationales for civilianization from Canadian police personnel. A survey was used to garner opinions and found that police view civilianization as a cost saving measure as they do not require additional training (Kiedrowski et al., 2019). Additionally, civilians were viewed to be a more effective way to introduce specialized knowledge and unique perspectives into policing, allow for greater resource allocation with sworn members, and longevity in the role for which they were hired. Following the survey, the authors interviewed ten

police executives about civilianization. However, despite their knowledge, police executives may not be placed in the same situations as actual employees and thus, may lack insight into the realities of sworn and civilian member experiences. Hence, it was important in the present study to highlight the experiences of sworn and civilians directly involved with the day-to-day functions of Forensic Identification Units (FIUs) using semi-structured interviews.

Additionally, in 2006 Griffiths et al. conducted an audit for the Vancouver Police Department (VPD) to determine the level of civilianization existing within VPD, what positions should be reclassified into civilian roles and cost benefit analyses. Griffiths et al. recommended that 19 police officer positions should be reclassified with civilian personnel, which would result in saving “\$600,000 per year” (Griffiths et al., 2006; “The Expert Panel”, 2014). The Toronto Police Services Board conducted a similar inquiry in 2013 to explore what sworn roles could and should be replaced by civilians (Toronto Police Services Board, 2013). The focus of their analysis was also economical in nature and emphasized civilianization as a cost saving measure for law enforcement (Toronto Police Services Board, 2013).

2.2. Organizational Culture of Policing

Much of the literature relating to police organizational culture points to recruit training as the first exposure officers have with police subculture (Campbell et al., 2021; Chappell & Lanza-Kaduce, 2010; Kumar, 2019; Modise & Raga, 2022; Rose & Unnithan, 2015; Seagrave, 1997). Through recruit socialization, the chain of command structure, group punishment and stress tolerance are emphasized to begin stripping recruits of their individuality so “esprit de corps” is embraced (Chappell & Lanza-Kaduce, 2010, p.189; Demirkol & Nalla, 2020; Rose & Unnithan, 2015). Esprit de corps is defined as members of a cohesive group that share a common loyalty and fellowship. As has been conveyed by the vast amount of literature, adherence to police culture is strong and customary (Boivin et al., 2020; Brough et al., 2016; Crank, 2004; Demirkol & Nalla, 2020; Rose & Unnithan, 2015).

As Paoline & Terrill (2014) suggest, socialization is one of the major components that shapes culture and values (as cited in Boivin et al., 2020). As a result of police training, new recruits become increasingly similar as they share common experiences

with their fellow recruits and experienced officers (Boivin et al., 2020; Campbell et al., 2021; Demirkol & Nalla, 2020; Modise & Raga, 2022; Rose & Unnithan, 2015; Seagrave, 1997). Other research on social identity theory indicates that “attitudes are acquired and expressed in social contexts and often define the boundaries between social groups” (Hogg & Smith, 2007 as cited in Boivin et al., 2020, p.49). Additionally, much of the police culture literature has examined the process of self identification which occurs when an individual defines themselves as a group member (Kreiner et al., 2006 as cited in Boivin et al., 2020; Kumar, 2019). The process of socialization results in the process of “othering” meaning that distinctions are made in relation to officers versus those outside the social group; an “us versus them” division (Boivin et al., 2020; Kumar, 2019).

2.2.1. Characterizing Policing Culture

Scholars have noted the importance of examining occupational culture to better understand a number of issues within policing (Goff, 2017 as cited in Campbell et al., 2021; Paoline, 2003). Scholars have found Canadian police agencies exhibit a culture characterized by heterosexual, conservative, white males which presents substantial challenges for progression (Campbell et al., 2021; Reiner, 1985 as cited in Campeau, 2019; Pollock, 2021). Considerable attention has been paid to understanding the subculture of policing which has resulted in a wealth of literature on police culture (Boivin et al., 2020; Loftus, 2010; Modise & Raga, 2022; Paoline, 2003; Rose & Unnithan, 2015). The police subculture acts in conjunction with the hierarchical and bureaucratic structure of the police organization as a system of internal control.

2.2.1.1. *The Police Family: Solidarity, Cynicism and Suspiciousness*

Solidarity and loyalty among members of police groups is one of the most consistent cultural characteristics documented within the literature. Police have a unique camaraderie and group loyalty to one another that has been referred to as the blue wall of silence, the brotherhood or cop code (Boivin et al., 2020; Brough et al., 2016; Campbell et al., 2021; Campeau, 2019; Chappell & Lanza-Kaduce, 2010; Pollock, 2021). Being loyal is the most powerful element within police culture because the expectation above all else, is that you will never let your colleagues down (Brough et al., 2016; Kumar, 2019; McKay, 2014; Pollock, 2021).

The police family represents the collective identity felt by officers who have experienced the same levels of volatility as one another and feel that only police will understand other police (Brough et al., 2016; Loftus, 2010; McKay, 2014). As they are presented with dynamically stressful work environments, officers tend to rely heavily on their police family when they are in need of backup or face life threatening danger (Brough et al., 2016; Campeau, 2019; Ingram et al., 2013; Pollock, 2021; Rose & Unnithan, 2015). As a result of feeling misunderstood by those outside the policing family, officers participate in a closed social system and tend to interact only with other police personnel, even outside of work (Kumar, 2019; Loftus, 2010; McKay, 2014; Pollock, 2021; Rose & Unnithan, 2015).

In a sense, the policing profession is somewhat isolating as members are generally suspicious and mistrusting towards non-police (Boivin et al., 2020; Brough et al., 2016; Campbell et al., 2021; Campeau, 2019; Paoline, 2003). Not only are police trained to detect crime and deception, making them more prone to suspicion, but they are also suspicious towards members of the public as well as new colleagues (Brough et al., 2016). As such they believe trust should not be given to a newer officer until they prove their worth and that information should be given on a need to know basis (Brough et al., 2016). It has also been suggested that officers are suspicious of the unpredictable bureaucracy that comes with the nature of law enforcement organizations (Paoline, 2003). Moreover, officers tend to become hardened due to the challenging clientele they interact with and, as a result, they adopt a cynical outlook (Brough et al., 2016; Campeau, 2019; Pollock, 2021; Seagrave, 1997).

2.2.1.2. *Uniforms and Equipment as Symbols of Status & Membership*

Another aspect of policing culture is the uniform and marked police vehicles that accompany sworn officers. Though geographical locations may encompass different categories of law enforcement, one facet that remains consistent across the policing landscape is the presence of uniforms (Simpson, 2017, 2018; Simpson & Sergeant, 2022). Scholars argue police uniforms are one of the most important symbols of equipment for officers as it signifies group membership and highlights status within the hierarchy (De Camargo, 2019; Rowe et al., 2023; Simpson, 2017, 2018, 2019). Uniforms are not only an element of occupational identity but further signify belonging to the police family (Rowe et al., 2023). Artefacts of the uniform such as use of force tools and

patches indicating seniority are symbols of camaraderie and have encapsulated a sense of risk and danger associated with the role (Rowe et al., 2023).

Further, the policing culture is hesitant to accept internal police support personnel who are not sworn officers but wear uniforms similar to the sworn uniform (De Camargo, 2019). Community support officers and civilian personnel wear clothing that signifies their association with police agencies but officers believe the uniforms are not distinct enough from theirs (De Camargo, 2019). Uniforms and attire of civilian law enforcement personnel remains an understudied area within Canada, so little is known about how uniforms impact public perceptions and internal dynamics between sworn officers and civilians.

Additionally, marked vehicles signify affiliation with law enforcement organizations when compared with non-marked vehicles (Simpson, 2019). When a member of the public sees a marked vehicle, they presume a police officer is operating the vehicle but non-marked vehicles do not have the same effect (Simpson, 2019). Thus, this may suggest that marked police vehicles are a facet of police legitimacy (Simpson, 2019). An interesting parallel is offered by scholars who suggest that perceptions of officers in marked versus non-marked vehicles mirror the differences in perceptions of officers wearing uniform versus civilian attire, where their status as police officers is known versus hidden (Rowe et al., 2023; Simpson, 2017, 2018).

2.2.1.3. *Us Versus Them*

There is a significant body of literature relating to the “us versus them” mentality of police culture which often refers to police versus members of the public or administrators in the upper hierarchy (Boivin et al., 2020; Brough et al., 2016; Kumar, 2019; McKay, 2014; Perrott & Kelloway, 2011). In addition, there is a wealth of research relating to how the organizational culture shapes police interactions with sworn colleagues and members of the public (Alderden & Skogan, 2014; Boivin et al., 2020; Brough et al., 2016). However, one under-appreciated aspect of police culture is how the divisive mentality impacts sworn and civilian relationships (Alderden & Skogan, 2014; Griffiths et al., 2006; Kiedrowski et al., 2019; McKay-Davis et al., 2020).

It has been suggested that the process of integrating civilians into law enforcement presents considerable challenges (Griffiths et al., 2006; Kiedrowski et al.,

2017, 2019; McKay-Davis et al., 2020; Wilson-Kovacs, 2014). Trouble integrating may be the result of civilians' restricted capacity to engage in 'real police work' which causes them to be denied full membership into the police culture (Cosgrove, 2016). There is typically a strong bond, camaraderie and support between sworn personnel and thus, civilians are viewed as outsiders who cannot understand the bond shaped by experiencing dangerous situations together (Alderden & Skogan, 2014; Cosgrove, 2016; McKay-Davis et al., 2020). Ultimately, "the defining characteristics of traditional police culture, such as solidarity, suspicion and isolation . . . have extended their reach and found resonance among members of the extended police family" (Cosgrove, 2016, p.133). The solidarity and isolation that members of the police family share also contribute to the belief that civilians should not be trusted, would not have their back, and are not dependable in life-threatening emergencies (Alderden & Skogan, 2014; McKay, 2014). As King (2009) reiterates, sworn officers ensure civilians know their place as "second class organizational citizens" (as cited in Alderden & Skogan, 2014, p.265). As a result, civilian personnel are often looked down upon and do not receive the same level of recognition that a sworn member would (Alderden & Skogan, 2014; Cope, 2004 as cited in Belur & Johnson, 2018; Cosgrove, 2016; Kiedrowski et al., 2019; McKay-Davis et al., 2020; Moran, 2019). Despite many civilians conforming to the dominant police culture in an attempt to prove their value to sworn officers, it is difficult for them to "circumvent their outsider status", leading to only marginal membership (Cosgrove, 2016, p.134). Future research should examine the relationship between the resistance to accepting civilians and the implications this has on morale, burnout, and its subsequent impact on employee turnover (Alderden & Skogan, 2014; Kiedrowski et al., 2019).

One challenge discussed by scholars relating to integrating civilians is the opposition from union associations who represent sworn personnel within policing agencies, along with internal management (Griffiths et al., 2006; Kiedrowski et al., 2019). The resistance from both groups can be attributed to the belief that most positions within law enforcement agencies require sworn personnel to fulfill them (Griffiths et al., 2006; Wilson-Kovacs, 2014). Thus, the integration of civilian personnel challenges the traditional nature of police work (Griffiths et al., 2006; Kiedrowski et al., 2019). A study conducted by Kiedrowski et al. (2017) highlights this reality when one police executive was asked if civilians can be hired for specialized investigative duties and the response was "this would be an extreme culture shock to the organization as only sworn officers

have the training to do so” (p.33). One concern voiced by police unions regarding civilianization is whether enough sworn personnel will remain to respond to major events that require lethal overwatch (Griffiths et al., 2006; Kiedrowski et al., 2019; McKay-Davis et al., 2020). Additionally, civilians pose a threat to sworn officer job security and the promotional opportunities available to sworn officers (Alderden & Skogan, 2014; Griffiths et al., 2006; Kiedrowski et al., 2019). To make matters even more challenging, union contracts, known as collective agreements, seek to limit the number of civilians that can be hired due to the above mentioned reasons (Griffiths et al., 2006; Kiedrowski et al., 2019).

Bentley’s (2013) research sought to understand the relationship between civilian and sworn personnel by examining “how civilians are differently ‘objectified’ vis-à-vis sworn police officers” (as cited in Kiedrowski et al., 2017, p.12). Insignia on officers’ uniforms highlight rank and specialty, whereas civilians lack such affiliation tags (Bentley, 2013 as cited in Kiedrowski et al., 2017). This study found that uniforms signify and promote values of police organizational culture which results in group distinctions that ultimately erode the morale and lead to a breakdown in organizational cohesion (Bentley, 2013 as cited in Kiedrowski et al., 2017). Additionally, uniforms signify positionality within the hierarchy relative to those who do not have the same uniform and thus becomes suggestive of the employees status and value within the physical space at the police organization (Kiedrowski et al., 2019).

Ultimately, the challenges associated with integrating civilians into policing can be traced to the organizational culture of policing and its stark resistance to change or adaptation to new styles of policing (Belur & Johnson, 2018). Acceptance into the police culture and subcultures is pivotal to the success of civilians (Alderden & Skogan, 2014; Belur & Johnson, 2018; Skogan & Alderden, 2011). Finally, it is widely acknowledged that the organizational culture of sworn officers excludes civilians from fully participating in the workforce (Alderden & Skogan, 2014; Kiedrowski et al., 2019; McKay-Davis et al., 2020). Furthermore, there is little opportunity for promotion or the ability for civilians to advance their careers (Alderden & Skogan, 2014; Griffiths et al., 2006). Future research should examine the relationship between the resistance to accepting civilians and the implications this has on morale, burnout, and its subsequent impact on employee turnover (Adams & Mastracci, 2020; Alderden & Skogan, 2014; Kiedrowski et al., 2019; McKay-Davis et al., 2020).

2.3. Crime Scene Investigation: International Context

Across the globe, crime scene units are uniquely comprised. The process to become a crime scene examiner, including the education, qualifications, experience required, as well as the training received, varies extensively (Chowdhury, 2021b; Mennell, 2006; Saldivar, 2017; Stanley & Horswell, 2004; Wyatt & Wilson-Kovacs, 2019). Each crime scene examiner position offers a unique set of roles and responsibilities depending on agency and geographical specifics. In Sweden, and American states, sworn officers are responsible for collecting evidence at crime scenes (Kruse, 2020; Wyatt & Wilson-Kovacs, 2019). Canadian forensic units rely on sworn officers but civilians are being integrated in limited capacities (Griffiths et al., 2006; Kiedrowski et al., 2017). In other parts of the US and the UK, police departments recruit specially trained civilians to conduct crime scene investigations (Chowdhury, 2021b; Griffiths et al., 2006; Kiedrowski et al., 2017; Wyatt & Wilson-Kovacs, 2019). Both the US and the UK serve as comparative models for countries like Canada, that remain dependent on sworn officers in crime scene units but desire civilianization. This section will now examine international crime scene units in greater detail.

2.3.1. The United States (US)

Historically, many US policing agencies used sworn officers to process crime scenes but over time have introduced civilians to fulfill this role (King & Wilson, 2014). Various cities such as Knoxville, Tennessee, and Austin, Texas have implemented entirely civilianized crime scene units (King & Wilson, 2014). In some larger metropolitan areas, crime scene investigation units remain composed of sworn officers (King & Wilson, 2014). Lambert et al. (2003) found that many law enforcement agencies only had a small number of officers dedicated to crime scene units.

As suggested above, the composition of Crime Scene Units (CSU) in the US is not universal (Bradbury & Feist, 2005; Lambert et al., 2003). Depending on the state, the responsibility of collecting forensic evidence may be fulfilled by civilian crime scene examiners, sworn officers in investigative roles or by sworn officers working on patrol (Bradbury & Feist, 2005; Lambert et al., 2003). Agency policy dictates the deployment of crime scene professionals which can range from blanket attendance, discretionary attendance based on information provided to the agencies dispatch services, or by the

first responding officers (FRO) (Bradbury & Feist, 2005). In some instances, patrol officers are required to retrieve physical evidence from the scene (Petersilia, 1978 as cited in Bradbury & Feist, 2005; King & Wilson, 2014). If an agency did not have a designated crime scene unit, then it was usually the responsibility of the FRO to collect crime scene evidence (Lambert et al., 2003).

2.3.1.1. 2009 Strengthening Forensic Science in the United States: A Path Forward

In 2009, the National Research Council examined the state of forensic science in the US and titled the report, *Strengthening Forensic Science in the United States: A Path Forward*. Though the report criticized the forensic science disciplines within the US, the findings greatly impacted Canadian practitioners. Together, the shortcomings identified throughout the 2009 report reflect systemically embedded issues such as the absence of training and continual education, a lack of accreditation and certification programs, unstandardized performance standards and non-existent oversight bodies. While the community of forensic practitioners consists of scientists, lab technicians, law enforcement officers, and crime scene investigators, the 2009 report signified “sharp distinctions between forensic practitioners who are trained in chemistry, biochemistry and biology and technicians who lend support to forensic science enterprises” (p.7).

Specifically relating to CSI, the report emphasized the fragmented system existing within the US due to several organizational approaches (National Research Council, 2009). It outlined the various roles and responsibilities of CSI personnel throughout varying jurisdictions and also identified the diverse educational backgrounds of CSI (National Research Council, 2009). As a result of the inconsistent standards and oversight across jurisdictions, there is concern around “honest mistakes being made due to inexperience or a lack of scientific background (National Research Council, 2009, p.57). The report signified persistent concerns relating to un-standardized crime scene practices and a lack of proper training for personnel which ultimately hinders conclusions during analysis (National Research Council, 2009).

The report identified several recommendations that must be implemented to improve the scientific validity of forensic disciplines. The recommendations directly applicable to this thesis are as follows:

- Forensic examiners must understand the principles and practices of science, including the scientific method.
- Training must move away from relying on apprentice-like transmittal of practices to education at the university level that focuses on scientific principles.
- Improvement in undergraduate and graduate programs. Legitimate practices in the forensic science disciplines must be based on established scientific knowledge, principles, and practices, which are best learned through formal education and training and the proper conduct of research.
- The courts must respond to the growing complexity of evidence by developing science-based judicial education programs that explain scientific issues as they may arise in the context of litigation.

(National Research Council, 2009)

2.3.2. The United Kingdom (UK)

The use of civilians in policing can be traced to the inception of modern policing in the UK when the London Metropolitan Police was created in 1829 (Kiedrowski et al., 2017, 2019; Whelan & Harkin, 2021). In the early 1920s, it was commonplace for UK agencies to hire civilians to fulfill administrative support roles to free more officers to carry out more traditional policing duties (Kiedrowski et al., 2017; Whelan & Harkin, 2021).

Despite a growing interest in forensic science and its application within law enforcement in the 19th and 20th centuries, it became increasingly evident that police officers may not be equipped to conduct scientific inquiries (Chowdhury, 2021a; Forst, 2000; Ludwig et al., 2012). As the roles and responsibilities of police officers continued to evolve, there was increasing demand on police resources and limited budgets to fulfill such demands (Kiedrowski et al., 2016). The initial response to this reality was to civilianize various roles within policing agencies that did not require police powers, specialized training, or prior experience (Home Office, 1988 as cited in Kiedrowski et al., 2016).

Specific to crime scene examination, the first civilians, known as Scenes of Crime Officers (SOCOs) emerged by the 1960s (Ludwig et al., 2012; Millen, 2000). As Sutton et al. (2016) identified, SOCO was the designation “first used by the Metropolitan Police Service in the early 1970s when the role began to develop from police to support staff”

(p.39). SOCOs were initially tasked with identifying, collecting, and preserving physical evidence from their scene examinations (Ludwig et al., 2012; Millen, 2000). It was documented that SOCOs were skilled in fingerprinting, forensic identification, and photographic work, but they gained these skills through experience due to the training being largely unstandardized (Ludwig et al., 2012).

Crime Scene Investigators are commonly referred to as SOCOs or Crime Scene Examiners (CSEs) throughout the UK literature, though this designation is not always consistent (Chowdhury, 2021b, 2021a; Sutton et al., 2016). For this paper, CSIs will be referred to as SOCOs within the UK section.

2.3.3. Present Crime Scene Investigation in the UK

As discussed previously, in countries such as the UK, crime scene investigation is comprised of members recruited from the civilian population (Griffiths, 2006; Wyatt, 2014; Wyatt & Wilson-Kovacks, 2019). Examining crime scene investigators within the UK is paramount because it offers insight into a system that is entirely civilianized (Griffiths, 2006; Ludwig et al., 2012; Wilson-Kovacks, 2014).

Civilian SOCOs are scientific support personnel who are employed by police services but work within scientific support units with other scientific support staff (Harrison, 2006; Ludwig & Fraser, 2014). Though SOCOs work in conjunction with police patrol officers as well as sworn investigative personnel, they remain in separate units within police organizations (Ludwig et al., 2012). Within the UK, it is the SOCOs who examine and collect physical evidence from volume crime scenes, such as break and enter or vehicular crimes, to major crimes such as homicide and sexual assault (Griffiths, 2006; Williams, 2007 as cited in Wyatt, 2014; White, 2004; Wyatt, 2014).

2.3.3.1. *The Education & Training of SOCOs in the UK*

Despite the Touche Ross Report (1987) and the HMIC Report (2000) emphasizing the importance of standardizing the CSI profession, it appears that the educational qualifications required to become a SOCO in the UK remain unstandardized today (Chowdhury, 2021b; Mennell, 2006; Ubelaker, 2012). Chowdhury (2021b) conducted a review of crime scene personnel job postings in the UK to determine the education and training required for the SOCO position. Their findings indicate that some

UK policing agencies do not require SOCOs to acquire any academic qualifications, while other agencies vary in what education level is necessary at the time of hire (Chowdhury, 2021b). Though the educational requirements of crime scene investigators remain unstandardized in the UK today, this discrepancy is overcome by a standardized training process that is specific to the job requirements of a crime scene examiner.

Once an individual enters the occupation of crime scene investigation, every SOCO within the UK is subjected to standardized training at the Forensic Center of the College of Policing (Sutton et al., 2016). This formal training program was established after multiple independent law enforcement training agencies were amalgamated into one for standardization purposes (Pepper, 2010; Sutton et al., 2016). This training assists SOCOs in fulfilling their roles and responsibilities which in the UK include: confirmation that a crime has occurred, preserving the scene, recognizing key evidence areas, identification of the types of evidence located, record management of all evidence, recovering evidence from the scene, packing and storing evidence accordingly, communicating with the investigating officer, preparing evidence statements, and finally, presenting evidence before a court of law (Sutton et al., 2016).

Having established that the model of CSI in the UK is entirely civilianized, it is now possible to contrast this information by exploring CSI within Canada.

2.4. Crime Scene Investigation in Canada

So far, the literature review relating to crime scene investigation has focused on international contexts such as the US and UK. Though the organizational structure of policing in Canada was heavily influenced by the UK model (Ontario Provincial Police, 2020), every country has a unique way of integrating forensic support services into law enforcement (National Research Council, 2009; J. Robertson, 2012). Forensic support services such as crime scene examination, fingerprint identification, and forensic laboratories are homed by federal, provincial and municipal police agencies within Canada (Anderson, 2017; Pollanen et al., 2012; N. Robertson, 2012). The following section will examine the composition of forensic units, the roles and responsibilities of Forensic Identification (FI) personnel, and the educational and training requirements of these personnel. Much of the existing Canadian literature relating to the structure of FIUs

remains focused around RCMP processes. Future research should focus on filling the gaps regarding the structure of provincial and municipal agencies.

2.4.1. History

At the onset of the 20th century, many law enforcement agencies within Canada were in their extreme infancy (Ontario Provincial Police, 2020). As a result, agencies had yet to establish units responsible for identifying criminals (Chafe, 2008; B. W. King, 1987). By 1906, fingerprinting was starting to be used for the purposes of identification (McGrath & Mitchell, 1981). However, in 1911, the Canadian Criminal Identification Bureau was formed which collected thousands of fingerprints and conviction records (B. W. King, 1987). In 1920, when RCMP was granted jurisdiction for all of Canada, they also became responsible for the National Fingerprint Bureau (McGrath & Mitchell, 1981).

The first documented case of fingerprint evidence presented in Canada was in Alberta in 1921 (Chafe, 2008). The extent of information relating to the historical formation of specialized units like forensic identification, remains significantly limited. Thus, what could be located was specific to the OPP which indicates that, “from the 1970’s, specialization in policing has been increasingly reflected in OPP training . . . this has included: . . . forensics; identification; and criminal investigation . . .” (Ontario Provincial Police, 2020, para.34). No further information could be located that specifically relates to when the delegation of the “Forensic Identification Officer” title was first incepted in Canada or what the composition of forensic units was historically.

2.4.2. Current Landscape of Canadian CSI

Federal, provincial and municipal Canadian policing agencies have unique ways of integrating Forensic Identification Units (FIUs) into their respective services (Anderson, 2017; Pollanen et al., 2012). FIUs are typically a mix of sworn and civilian personnel, while some agencies have entirely civilianized FIUs (Anderson, 2017; BayToday Staff, 2016; Griffiths et al., 2006; J. Robertson, 2012; Watkins et al., 2013).

Pollanen (2012) reported that police services across Canada had seen little to no growth in the forensic identification workforce. Though the RCMP increased its number of police officers by 25% from 1996 to 2006, positions within forensic identification only

increased by 10% (Pollanen et al., 2012). The lack of officer interest in pursuing a career in forensic identification may be a result of the dramatic increase in technical, scientific and legal requirements of personnel in forensic units (Pollanen et al., 2012).

2.4.2.1. Who are Forensic Identification Officers in Canada

Substantial variation in the job titles used to describe crime scene investigators have been highlighted throughout the academic literature including Crime Scene Examiners, Forensic Technicians, Forensic Specialists, Forensic Identification Specialists (FIS), Forensic Identification Assistants (FIAs), Scenes of Crime Officers (SOCOs), or Crime Scene Investigators (CSIs) (Griffiths et al., 2006; Moran, 2019; National Research Council, 2009; Saldivar, 2017; Watkins et al., 2013). Though this variation may seem trivial, the job title itself can dictate the role and responsibilities fulfilled (Anderson, 2017; Edmonton Police Service, 2019).

Generally, Forensic Identification personnel attend crime scenes to locate, collect, document, preserve and package physical evidence for further examination (Anderson, 2017; National Research Council, 2009; Pollanen et al., 2012). Each type of evidence requires distinct scientific techniques for proper collection that must be understood in relation to environmental factors, light availability, as well as surface type and location on which evidence was found (Pepper, 2010; Sutton et al., 2016). Forensic Identification Officers (FIOs) are also responsible for analyzing pattern-based physical evidence which includes fingerprint analysis (friction-ridge), footwear and tire track impressions (Anderson, 2017; Pollanen et al., 2012).

All officers who become FIOs are trained as experts in friction-ridge (fingerprint) comparison (Anderson, 2017; Pollanen et al., 2012). They are also trained to examine footwear and tire track impressions but not all FIOs become experts in these areas (Pollanen et al., 2012). Others may also become further specialized in blood pattern analysis. FIOs are required to know many different methods of forensic science analysis which is why they “represent a multidisciplinary pursuit” (Moran, 2019). In Canada, both sworn and civilian personnel may be responsible for some of the analysis of pattern-based physical evidence, such as fingerprints (Anderson, 2017).

Two pathways may lead an individual to become an FIO: the first being police officers who may not have specialized scientific background but receive additional

forensic training after experience in general patrol (Anderson, 2017; Pollanen et al., 2012). Pollanen (2012) highlights that many officers enter the RCMP with a high-school diploma and receive in-house training through the agency. In the RCMP, sworn police officers who want to become FIOs must complete a minimum of three years service before they will be considered (Anderson, 2017). This years of service prerequisite has not been consistent over time due to various staffing demands (Anderson, 2017). Sworn officers, also known as Forensic Identification Specialists (FIS), attend every type of crime scene including volatile scenes such as homicides, sexual assaults, and violent break and enters, to locate, collect, and preserve physical evidence and then attend court proceedings to testify (Anderson, 2017; Watkins et al., 2013). In addition, provincial legislation, such as the Major Case Management Manual, outlines that it must be a sworn police officer who is the primary forensic identification investigator on major crime scenes (Province of Ontario, 2004).

The second path involves civilians who are educated in a science or related degree and seek out police organizations with the direct intent of working in forensic science (Alderden & Skogan, 2014; Anderson, 2017; Pollanen et al., 2012). Within the RCMP, civilians are referred to as Forensic Identification Assistants (FIAs) and are limited in the types of crime scenes they can attend without an accompanying sworn officer (Anderson, 2017). Much of the literature refers to civilians in forensic units as occupying supporting roles (Pollanen et al., 2012). If FIAs are the primary investigators of their own cases, they attend scenes where no imminent danger is present, such as a secure tow yard (Anderson, 2017; Pollanen et al., 2012). Most of their work involves processing scene exhibits and fingerprint analysis once it has been brought back to a secure detachment by their FIS counterparts (Anderson, 2017). Besides the issues around safety of a scene already discussed, there is a lack of literature pertaining to the reasons why civilians are limited in their roles and responsibilities. Thus, future research should aim to uncover this reasoning as Pollanen 2012 suggests the trend towards civilianization in FIUs may rise.

Education

Previous research on crime scene investigation personnel emphasized the importance of qualification through education (Kelty et al., 2011; Moran, 2019; Saldivar, 2017; Stanley & Horswell, 2004). The mixed composition of FIUs in Canada, requires an

examination of sworn police officer’s educational requirements versus civilian requirements at the time of application. Table 2.1 provides a comparison of these requirements in Ontario.

Table 2.1. Comparison of FIU Personnel Educational Requirements

Hamilton Police Service Location: ON, Canada Position: Forensic Services Assistant (Civilian)	York Police Service Location: ON, Canada Position: Police Constable
Education & Experience Requirements	Education & Experience Requirements
<ul style="list-style-type: none"> • Minimum two (2) year Community College Diploma or University Degree in Biotechnology, Laboratory Technician, Science/Forensic Sciences, or related Health/Medical Sciences. Training in photography is an asset. • Minimum four (4) month previous experience in a laboratory or crime scene investigation environment (co-cop experience is acceptable), or related experience. • Previous experience in law enforcement/public safety would also be an asset. • Training or experience in the processing of video/photographs would be an asset. • Must be able to obtain/keep Special Constable Appointment designation, throughout their time in this position. 	<ul style="list-style-type: none"> • Have proof of successful completion of four years of post-secondary school education or equivalency.
(City of Hamilton, 2021)	(York Regional Police, 2020)

Some Canadian policing agencies continue to believe that a high school diploma is sufficient education for becoming a police officer (Calgary Police Service, 2023; J. Robertson, 2012; Royal Canadian Mounted Police, 2020; Saldivar, 2017). Though, most agencies have began requiring applicants have a post secondary education (Toronto

Police Service, 2023). However, just because an individual has completed post secondary education does not necessarily mean that the education was science focused. Though not every police officer enters their career with the desire to go into the FIU, some authors have suggested that the education required to become a police officer does not suffice if they do end up as a member of the FIU (Julian et al., 2012; Kelty et al., 2011; J. Robertson, 2012). Furthermore, the literature consistently highlights that sworn law enforcement officers have limited knowledge about forensic science and its application in policing (Julian et al., 2012; Ludwig & Fraser, 2014; National Research Council, 2009; Saldivar, 2017). Alternatively, civilians must demonstrate that they have more specialized skills and training at the time of application, as seen in Table 2.1.

In 2019, Illes et al. tested the reasoning skills of crime scene examiners in the Canadian context. Prior to testing, the authors proposed three hypotheses: 1) higher education would be related to a greater ability to apply reasoning and more accurate analyses of evidence; 2) crime scene experience does not have a substantial role in one's ability to reason, and 3), employment status (i.e., civilian or sworn) was independent of one's ability to reason. They found education level was central to higher order reasoning skills within the groups tested (Illes et al., 2019). Additionally, the authors argue that a strong scientific background is critical for crime scene investigation tasks. Ultimately, the findings support the importance of education despite the historic mindset of forensic police practitioners who refer to experience as more important than education. Finally, the research suggests that there was no statistical difference between test scores of police versus civilian employees. The authors recommend that police organizations must rethink the importance of education and policies surrounding civilian employment and the subsequent tasks given to civilians hired in forensic identification. They also suggest that the courts must exercise caution when accepting evidence based on the years of experience a practitioner has as these tests prove experience needs to coincide with education (Illes et al., 2019).

Training

This section explores literature relating to the forensic training provided to FIOs across Canada. Typically, candidates interested in FIUs undergo a structured assessment screening process to determine whether they are suitable for the role (Anderson, 2017; Pollanen et al., 2012). Assessments generally involve aptitude testing

to determine whether the applicant has an aptitude for identifying patterns in evidence and can handle the disturbing nature of crime scenes (Pollanen et al., 2012). All candidates within the RCMP undergo this assessment period, but as will be evident from Table 2.2, not all municipal agencies undertake this assessment period. The lack of assessment may be due to available resources or the need to urgently hire staff due to various staffing demands.

Members hired in the FIU are required to undergo intensive training at the Canadian Police College (CPC) or the Ontario Police College (OPC) to acquire the skills necessary for processing crime scenes (Anderson, 2017; Canadian Police College, 2023; Edmonton Police Service, 2019; Pollanen et al., 2012). The training is eight weeks in length and involves teaching components, assessments, and moot court experiences (Anderson, 2017; Pollanen et al., 2012). Some of the areas that the CPC covers include fingerprinting, physical comparisons, forensic photography, digital imaging, crime scene techniques, and the recognition, collection, examination, preservation and presentation of evidence (Canadian Police College, 2023). If members are interested in further training and expertise in areas like footwear or tire track analysis, they receive training at the CPC or the OPC (Pollanen et al., 2012). Table 2.2 demonstrates the training process that FIOs undergo in two specific Canadian policing agencies.

Following the eight or nine-week forensic training at the police colleges, most candidates are required to undergo a structured understudy or mentorship program to continue as a professional in the discipline (Anderson, 2017; Pollanen et al., 2012). Additionally, members must pass the assessment period to be properly qualified to testify in a court of law (Pollanen et al., 2012). The length of understudy is dependent upon the agency and jurisdiction. Specific to the RCMP, members must pass a qualification board after 12-18 months in the understudy program (Pollanen et al., 2012).

Table 2.2. Comparison of Sworn FIO Requirements at time of Hire

Edmonton Police Service (EPS) Crime Scene Investigation Unit (CSIU)	Royal Canadian Mounted Police (RCMP) Forensic Identification Specialist (FIS)
<ul style="list-style-type: none"> • Once a member has been selected to become a crime scene investigator (CSI), they job shadow for 6 months. • Following this, they will attend the 8-week forensic identification course at the Canadian Police College (CPC). • Once they have completed the 8-week training course, they complete a 12-month understudy program with a senior CSI. • Throughout this 12-month period, members will be exposed to a variety of scenarios and crime scenes. • Following completion of this 12-month understudy, they are tested on a variety of competencies to ensure their skills and qualifications meet a high threshold of standards. • Learning is continuous throughout a members' career to ensure they remain knowledgeable about new forensic science innovations and information. <p style="text-align: right;">(Edmonton Police Service, 2019)</p>	<ul style="list-style-type: none"> • Complete and pass Physical Comparison Abilities Test (PCAT). • Undergo a 3-week assessment period under the supervision of an experienced FIS who will evaluate the candidate's work. • If successful, candidate will be placed on a list to attend the 8-week forensic identification course at the Canadian Police College (CPC) • Attend CPC to receive instruction on forensic techniques and scientific methods. Complete the training and return to the FIU. • Pass CPC written and exercise assessments. • While being a member of the FIU, complete a 12 to 18-month apprenticeship program under the supervision of a qualified specialist within the FIU. • Upon completion of the apprenticeship, members must present their skills and qualifications to a qualification board. This includes demonstrating skills in all areas of the discipline and demonstrating that they can "present and defend" fingerprint evidence in a moot court trial. The member is put under scrutiny by the actors within a court (judge, defence lawyers and crown prosecutors). • If they pass the moot court exercise, they are deemed successful in obtaining their accreditation. • Each member must be re-certified every three years. <p style="text-align: right;">(Anderson, 2017)</p>

Table 2.2 shows that Forensic Identification Officers of municipal and federal policing agencies, are held to extremely high standards regarding their qualifications and proficiencies. However, the RCMP process also requires recertification of their members every three years. In contrast, EPS members are required to engage in continuous learning, but this is quite vague and does not explicitly indicate whether continuous learning involves the re-certification of proficiencies.

2.4.2.2. How Case Law Informs Practice: *R. v. Mohan* [1994] 2 S.C.R. 9

Mohan established guidelines for the law relating to admitting expert opinion evidence in Canadian courts. Four criteria were established for judges when gatekeeping expert testimony, because of the *Mohan* case: “(a) relevance; (b) necessity in assisting the trier of fact; (c) the absence of any exclusionary rule; and (d) a properly qualified expert” (*R v Mohan*, 1994 SCR 9 at p. 20).

For expert evidence to be of necessity, the testimony must enhance the judge’s or jury’s understanding of a topic that is outside their experience and knowledge. Finally, the expert testimony must be provided by an individual who demonstrates acquired special or peculiar knowledge through study or experience on the matters to which they are testifying. Ultimately, *Mohan* outlines that expert evidence is essential to the trier of fact’s understanding and whether the trier would be unable to reach a conclusion without the experts’ assistance (*R v Mohan*, 1994 SCR 9). *Mohan* signified the potential dangers associated with expert evidence, which reiterates the importance of establishing criteria for admitting such evidence:

There is a danger that expert evidence will be misused and will distort the fact-finding process. Dressed up in scientific language which the jury does not easily understand and submitted through a witness of impressive antecedents, this evidence is apt to be accepted by the jury as being virtually infallible and as having more weight than it deserves. (R v Mohan, 1994 SCR 9 at p.21)

Forensic science remains a vital component of the Canadian criminal justice system, and thus, practitioners, such as FIOs, must be diligent in maintaining the current standard of excellence set out by the courts. Case law is one of the most prominent that influence a practitioner’s ability to tender evidence in court.

Summary

The above survey of the literature provides a starting point for understanding the efforts made by Canadian law enforcement agencies to civilianize certain roles. Though previous research indicates that civilianization is being explored in the Canadian context, the findings discuss civilians generally and have yet to explore civilians in specialty units like forensic identification. Evidently, much of the literature relating to civilianization has focused on the financial benefits associated with civilian personnel. Canadian scholars have identified potential benefits to civilianization that reach beyond monetary value, but these have yet to be explored in detail. Relating to crime scene investigation specifically, the literature highlights that forensic units in Canada are comprised of sworn and civilian personnel and offers insight into the distinctions between sworn and civilian roles within FIUs. However, the literature has yet to explore self-reported experiences of FIU personnel regarding the introduction of civilians into specialty units within law enforcement. Participants in the current study will help illuminate the experiences of sworn and civilian personnel working in forensic identification units. The next chapter of this thesis describes the methods used in this research study.

Chapter 3.

Methods

This study used qualitative methods to assess the benefits and challenges of civilianizing Forensic Identification Units (FIUs) within a Canadian context. Qualitative methods are critical for research that seeks to understand how actors of a specific phenomenon view and experience the world around them (Becker, 1998; Manning, 2015). Interviews are a common method for data collection in qualitative research because they allow participants to express their views and beliefs relating to a specific research question that may be complex and sensitive in nature (Barriball & While, 1994; Ryan et al., 2009).

This research assesses the challenges of fully civilianizing forensic Identification Units to better understand civilian contributions to law enforcement beyond the well documented fiscal benefits. The study's primary focus was to explore: (a) what is the relationship between policing and crime scene investigation in a Canadian context; (b) what skills and qualifications are necessary in crime scene investigation personnel; (c) how is the current model functioning? To answer these questions, in depth, semi-structured interviews were conducted with forty-five crime scene personnel across Canada.

3.1. Access and Recruitment

Initially, recruitment began through the Primary Investigator of this study, my direct supervisor, Dr. Gail Anderson. She is a primary Canadian expert for entomological evidence located at crime scenes, with established relationships with Forensic Identification Members across Canada. Dr. Anderson contacted Members from various agencies to determine their interest in participating in the research and sought permission for me to contact them via email. Next, an email with three information sheets attached (see Appendix B) that outlined the purpose of the research, the approval of research ethics for the study, and the consent form was sent.

Potential participants were screened for inclusion via email prior to scheduling an interview. Inclusion criteria for this study were: (a) current professional in Canadian crime

scene investigation either through teaching or practice; (b) minimum of one month experience working in the profession; c) currently residing in Canada; d) able to speak and understand English. As advised by Marshall & While (1994), English comprehension was adopted following the first interview because of barriers in communication between the researcher and participant.

Palys (2008) suggests using purposive sampling methods to ensure participants meet the inclusion criteria. Initial recruitment began using purposive sampling techniques, followed by snowball sampling after successful interviews when I asked participants to connect me with others in the field who might be interested in participating in the study. Snowball sampling is a useful mechanism for research that, “requires the knowledge of insiders to locate people for study” (Biernacki & Waldorf, 1981, p.141). Participants were asked to provide their interested colleagues with my contact information. Many potential participants reached out expressing interest, noting they needed permission from their superiors within their respective agencies prior to setting up an interview. Through this process I was introduced to Inspectors, Staff Sergeants and Sergeants who became agency gatekeepers and provided access to a greater number of participants. Gatekeeper support can help or hinder access to participants based on their personal opinions about the effect of the research on their agency’s reputation (Fitz-Gibson, 2016). Fortunately, the gatekeepers involved in this study saw value in contributing to the conversation about civilianization.

Participants commonly discussed their long-standing relationships with our mutual connection, Dr. Gail Anderson in both email and during interviews. These discussions were always positive and demonstrated that participants trusted and respected the Primary Investigator. Dr. Anderson’s positive relationship with many of the participants likely enhanced the quality of data collected and improved my own credibility as a researcher as I built rapport as an outsider to the field.

3.2. Data Collection: Interviews

The current research involves the participation of human subjects and thus, required ethics approval prior to beginning the interviews. Ethics approval was granted by Simon Fraser University’s Office of Research Ethics on January 7, 2022. The project,

study number #30000680, was designated “minimal risk” by the Office of Research Ethics at Simon Fraser University, as set out by the R20.01 Policy and Procedure 10.1.

The interviews were exploratory because of the complex nature of this under-researched topic (see, for example, Elliott & Timulak, 2005; Palys & Atchison, 2014). Three semi-structured interview guides were created (located in Appendix E) to accommodate the specific experiences of sworn officers, civilians, and forensic instructors. Semi-structured interview guides ensure specific questions are accessible but offer flexibility depending on participants’ levels of comfort (Galletta, 2013). Participants were generally asked to describe their roles and responsibilities within FIUs or the programs they instructed. The next set of questions related to the education and training participants obtained for their role. Following, participants were asked what skills and qualities they believed to be necessary for CSI. Finally, participants were asked about the benefits and challenges of civilianization which evolved into a dialogue about the benefits and challenges of sworn officers in FIUs and the dynamics between CSI personnel.

Interviews ranged from 30 to 112 minutes and took place from January to April of 2022. The interviews were conducted over Zoom, a video conferencing platform, given that the COVID-19 pandemic was ongoing and limited in-person interactions. A synopsis of the consent form sent via email was reviewed at the start of each interview and verbal consent was obtained before proceeding. Verbal consent included permission to record the audio component of the interview and use of the Closed Captioning (CC) transcription function. Verbal consent mitigates potential confidentiality breaches and assists in building rapport and trust with participants. Interview audio recordings were saved to a VeraCrypt container on a secure laptop computer until transcripts were complete and verified. Once verified, interview audio recordings were deleted.

Interviews were transcribed and anonymized, removing or altering any distinguishing features. Once transcripts were verified, participants had an opportunity to revise or edit the transcript to allow autonomy in how they were portrayed in the final version (Forbat & Henderson, 2005). The first five interviews were transcribed verbatim, recording all oral utterances in the audio recording (Halcomb & Davidson, 2006). However, participant feedback showed frustration with verbatim transcripts as they edited and removed “um’s, “and’s” and sounds such as ‘laughing’ and ‘coughing.’ I

removed distracting and repetitive words in subsequent transcripts to respect participants' time and to mitigate distractions caused by unnecessary words (see Forbat & Henderson, 2005). Once participants completed their review, I deemed the transcription process complete and moved the Word document files to a qualitative data-management software, NVivo 12, for coding and analysis.

3.3. Ethical Considerations

The nature of the interview questions required careful consideration and effort to uphold participant confidentiality and anonymity. To safeguard participants, participant numbers rather than pseudonyms were used because of the large sample. Numbers were assigned based on interview order and include participant role. Participant roles are reported as: S= Sworn, C= Civilian, I= Instructor. Some participants have two reported roles as they experienced career transitions that uniquely situated their perspectives, e.g., Being a sworn officer before becoming an instructor or transitioning from civilian to sworn in FIUs. The relatively tight knit Forensic Identification community required anonymizing participants' rank, province of employment, and respective agency. Accordingly, agency requests meant that participants' quotes are not associated with their specific agencies and because the perspectives highlighted within this project do not reflect the values or beliefs of the agencies involved.

3.4. Sample

Forty-six participants were interviewed, but one was excluded because a language barrier made the interview impossible to transcribe, resulting in a final sample of forty-five participants. Crime scene personnel consisted of sworn and civilian personnel from Canadian federal, provincial, and municipal law enforcement agencies, instructors from forensic science programs at Canadian universities and the Canadian and Ontario Police Colleges. Sworn officers, civilians and forensic instructors were included to understand civilianization from the lens of those working directly within the occupation. More specifically, sworn and civilian members of FIUs could speak directly to civilianization from an operational perspective, in addition to the plausibility from a police culture standpoint.

The roles of many participants had changed over time, with some civilian members becoming sworn officers within FIUs and some sworn officers were now instructors; thus, it was only their existing role that was reported in the table for simplicity purposes. Although sworn often reported their years of overall policing experience as well as the specific number of years spent in FIUs, Table 3.1 shows their time spent within FIUs. The participants' demographic characteristics are displayed in Table 3.1.

Table 3.1. Participant Demographics (n=45)

Characteristic	Number	Percent
Role ¹		
Sworn(s)	18	40.0
Civilian(s)	20	44.4
Forensic Instructor(s)	7	15.6
Agency/Institution Type		
RCMP (Federal/Provincial)	17	37.8
Municipal	21	46.7
Teaching Institutions	7	15.5
Gender		
Male	20	44.4
Female	25	55.6
Years of Experience in FIUs		
Sworn(s)		
Entry Level (0-5yrs)	3	16.7
Intermediate (5-10yrs)	7	38.9
Senior (10+yrs)	8	44.4
Civilian(s)		
Entry Level (0-5yrs)	7	35.0
Intermediate (5-10yrs)	6	30.0
Senior (10+yrs)	7	35.0
Forensic Instructor(s)		
Entry Level (0-5yrs)	2	28.6
Intermediate (5-10yrs)	3	42.8
Senior (10+yrs)	2	28.6

Most participants (84.4%) were members of Canadian policing agencies in a sworn or civilian capacity. Five of eight individuals with senior years of experience were

¹ Role by agency type was not reported to safeguard participant anonymity.

from the Royal Canadian Mounted Police (RCMP) and three held managerial roles. Sworn officers' years of experience ranged from four years to 22 years of experience in FIUs while civilians spent four years to 32 years working in FIUs.

Table 3.2 provides a detailed description of participant education levels by role type.

Table 3.2. Participant Education Levels (n=45)

Highest Education Level	Number	Percent
Sworn(s)		
Bachelor	13	72.2
Master	3	16.7
PhD	--	--
No Post-Secondary	2	11.1
Civilian(s)		
Bachelor	8	40.0
Master	6	30.0
PhD	6	30.0
No Post-Secondary	--	--
Forensic Instructor(s)		
Bachelor	2	28.6
Master	1	14.2
PhD	2	28.6
No Post-Secondary	2	28.6

*Note: Participants highest level of education attained was reported.

Forty-five participants had at least a Bachelors degree and 60% of civilians had completed a graduate degree.

3.5. Data Analysis

Transcripts were imported into NVivo 12, qualitative data software, to assist in the thematic analysis of interview data. Two rounds of coding using an inductive schema were completed for analysis. Inductive analysis allows for categories of key themes and concepts to emerge from raw data (Thomas, 2006). The first round of coding involved

reading the data line-by-line, conducting open coding to observe and determine consistent patterns throughout. Segments of text were labelled, and initial categories were created. The initial round of coding led to over one hundred codes and categories which revealed similarities and differences amongst participant perspectives.

The second round of coding involved condensing and further categorization of initial codes to make the process more manageable. I used NVivo to map out developing themes, sub-themes and important concepts that were emerging. The research goal was not to make the data fit into specific theories or concepts but rather for the emerging themes to be organized in a way that enhanced my understanding of the data. During the second round of coding, existing relationships within sample groups were identified. When writing the findings, analysis continued which allowed me to further review, revise and synthesize data into themes. The writing stage gave me an opportunity to compare across sample groups which immensely helped my understanding of the fundamental similarities and differences throughout the entire sample.

3.6. Methodological Rigor

Following each interview, new and emerging discussions were noted for future interviews. Additionally, nuances between participant experiences and stark contrasts in participant perspectives were documented. After each interview, I engaged in memoing which prompted me to think critically about the interview data before official analysis began. Note taking allowed me to critically assess my interview skills and improve on weak areas for subsequent interviews.

Reflexivity in qualitative research can be helpful in recognizing how our emotional responses to participants impact how we interpret their statements (Mauthner & Doucet, 2003). Being reflexive in my own practices allowed me to recognize when my own personal opinions about civilianization started influencing my interpretations. I realized following interviews with civilians where they would recount their interactions with sworn officers, I would find myself feeling resentment towards sworn participants being interviewed. I noted this as a bias I was having as a result of being an outsider and not fully understanding the internal dynamics of FIUs. Additionally, I recognized that I may not be getting the whole picture from participants due to their expressed concerns around being identified and facing internal repercussions from their agency for

participating. As such, participants may have been guarded in the experiences they shared with me and selective in what was discussed. By acknowledging my outsider positionality, I was able to reflect on how this status may hinder my understanding and receptivity of participant experiences. I continued to situate myself throughout data collection and data analysis to ensure I was remaining as impartial as I could. Additionally, memoing was beneficial in the data analysis stage as it allowed me to have a deeper understanding of thematic concepts between and within participants.

This chapter provided insight into how the current study was conducted, from the recruitment of participants to data analysis which constructed the findings. Forty-five semi-structured interviews with crime scene investigation personnel and forensic instructors provided unique insight into civilianization of Forensic Identification Units in Canada. The current study used inductive thematic analysis to allow themes to be identified from the data. The use of interviews allowed for participants' voices to guide the discussion and allowed the data to reflect their experiences and perspectives relating to civilianization. The next chapter presents the four major themes and sub-themes derived from the 45 interviews.

Chapter 4.

Results

The following chapter highlights the findings from the 45 interviews conducted with sworn and civilian Crime Scene Investigation (CSI) personnel, as well as forensic educators. Participants were asked to discuss their role, characteristics they considered important for CSI work and to describe their perspectives relating to fully civilianized Canadian Forensic Identification Units (FIUs). Despite personnel having very divided perspectives about civilianization, several themes emerged from the interviews. These themes revolved around the value participants attributed to post-secondary education and training at the police colleges. Additionally, these themes highlighted the reality that civilians spend their entire careers working in forensic identification, while the sworn officer system fosters career development and enforces policies that impede officers from dedicating their whole careers to one specialized unit. Themes also emerged around the experiences of personnel within FIUs and how these experiences influence the existing cultural dynamics between sworn and civilian members.

In general, responses from participants revealed that despite the belief that civilians were beneficial in some capacity to FIUs, substantial systemic barriers within law enforcement impede civilianization from happening at this time. Surprisingly, sworn officers also face considerable challenges that may ultimately hinder the quality of their contributions within FIUs. As a result, barriers impacting Forensic Identification members roles are discussed at length. These general themes will be explored with greater detail in the discussion.

As previously mentioned, participant responses are reported through pseudonyms which include an assigned number and current role. Some pseudonyms include two roles as participants experienced important career transitions that uniquely situate their perspectives on civilianization.

Table 4.1. Breakdown of Themes and Sub-themes

Theme	Sub-theme(s)
Power Dynamics Through Roles in FIUs	<ul style="list-style-type: none"> • Roles and Responsibilities of Canadian CSI Personnel • Hiring Requirements of Canadian CSI Personnel • Training of Canadian CSI Personnel
It's All About Perspective: The Value of Training & Education	<ul style="list-style-type: none"> • The Value of Training • The Value of Education
A Career or a Stepping Stone?	<ul style="list-style-type: none"> • 'They are a Police Officer First' <ul style="list-style-type: none"> ○ They are not just the Ident. Member, They Wear Many Hats' <ul style="list-style-type: none"> ▪ 'Our Members are Really the Jack of All Trades': Too Many Hats? • 'Civilians are the Glue that Holds Everything Together': The Longevity Civilians Offer FIUs • 'I didn't Kill Myself Through Physics Every Year Because I Wanted a Promotion, I'm Here Because I Want to Be Here': The Motives Behind Joining Ident. • 'There is an Attitude in Policing that Everybody Can Do Every Job, which is Especially Not the Case in Forensics!': Tenure Policies
Inviting Outsiders In: Us Versus Them Mentality	<ul style="list-style-type: none"> • 'You Only See the Bad That People Are Capable of Doing to Each Other': Discussions Around CSI Mental Health <ul style="list-style-type: none"> ○ Toxic Culture in FIUs <ul style="list-style-type: none"> ▪ 'It's Really Easy to Get Excluded in This Environment': Civilian Experiences ▪ 'I Don't Have Stripes on My Shoulders, So Organizationally, They Don't Know How to Treat Me': The Importance of Rank for Fitting in to the Police Culture ▪ 'The Title Relegates Us to a Secondary Role & Fails to Reflect the Magnitude of Our Work': CFIMs are More Than Assistants • Organizational Limits on the Civilian Role <ul style="list-style-type: none"> ○ 'It's Overkill to Have a Gun on Your Hip While Processing a Crime Scene': Are the skills of a Police Officer Necessary for CSI?

4.1. Power Dynamics Through Roles in FIUs

This theme reflects an analysis of participant roles as it relates to their responsibilities within Forensic Identification Units (FIUs) and forensic science programs within post-secondary institutions. In addition, this theme provides an overview of the distinctions in hiring requirements and the training received by personnel in these units. This theme will highlight how the hierarchical structure within policing constructs the power dynamics found within FIUs. Participant 38C's sentiment reflects the narrative of most participants (73%) who made distinctions between roles of sworn versus civilian members:

The biggest difference between myself and a sworn officer is that I am limited by what I can do. The FSA (Forensic Services Assistants), which is my job title, were not given permission to go to the police college, that's reserved for sworn officers, mostly because that's the way it's always been done . . . So that being said, I'm not an FIO, which is a sworn officer in forensics, meaning I can't be a lead on something like a homicide or any other major cases. I can help officers with those cases, so I do attend homicides, I do attend other larger cases but in an assistant position, so I just help out. So yeah, they (sworn) run the show. There's a lot of things that we do, just the bigger things, I do it under the supervision of the sworn officers.

4.1.1. Roles and Responsibilities of Canadian CSI Personnel

This section highlights participant depictions of their roles within FIUs and offers the reader insight into the roles fulfilled by sworn, civilians and management. Clear distinctions were made amongst role types which led to dividing this section by individual roles to further contrast the differences in responsibilities. I chose to separate the roles of sworn officers in FIUs from management, despite management consisting of sworn officers, to highlight the authority afforded to those in leadership of FIUs regardless of their lack of forensic training.

4.1.1.1. Sworn(s)

Participants indicate the primary function and responsibility of sworn officers working within FIUs, known as Forensic Identification Specialists (FIS), involves attending major crime scenes to collect, preserve, and analyze evidence that may be probative to police investigations. Major crime scenes include offences involving

persons, such as homicides, sexual assaults, home invasions, and vehicular deaths. FIS are responsible for crime scene investigations involving persons offences because they are armed with the use of force tools and trained in subject control tactics which are critical if a suspect returns to the scene and requires apprehension. Due to the volatile nature of the crime scenes for which FIS are responsible, they are frequently required to provide expert testimony in a court of law. One aspect that differentiated FIS from their civilian counterparts was their role in court and the responsibility they carry to maintain their competence as an expert:

I think from the perspective of the graphics, we are dealing with death and destruction on an everyday basis. Some of the other challenges are the ever-changing expectations, the ever-changing science, some things that we relied on yesteryear are no longer reliable. The bar of expectations in court keeps being raised and that's a good thing but it keeps us on our toes, it keeps us learning and always constantly developing because the science changes, technology changes, and our investigators have to change with it. (Participant 62S)

Due the extended responsibilities of FIS, their cases are more likely to involve testimonial components. FIS also stress the crucial need to consider long-term implications of their procedures at a crime scene, as they could be detrimental to the case outcome in a court of law. FIS felt an onus to impact caselaw in a positive manner. One identified benefit of being a sworn officer before entering specialized units like FIUs is the knowledge and experience gained in exercising search and seizure powers:

Being a cop, I go to crime scenes and I will enter and know the lawful placement of something being either consent or a warrant search. I've been asked at the house to "seize this and seize this" and I ask "well is this a warrant or is this consent?" and another member will be like, "well just pick it up" and I'm like, "no! this is the rules, is this warrant or consent?, if it's the offenders house, you need a warrant because anything I seize is going to get ejected at trial, I'm not breaching his rights because you don't know what you're doing" and as a cop, I know the threshold. (Participant 59S)

As participant 59S's sentiment signifies, FIS must be well rounded in appropriately exercising their powers, otherwise it could jeopardize the case and an individual's liberties.

4.1.1.2. Management

One predominant theme discussed throughout the interviews was FIS and CFIMs perspectives on the role of management within Forensic Identification. Management is

comprised of Sergeants, Staff Sergeants, and Inspectors of FIUs who are sworn personnel, with the exception of one FIU civilian manager. The primary function of management in FIUs varies in terms of day-to-day tasks but generally, they oversee the operational side of Forensic Identification but are not operational in the field themselves. Though participants discuss the impact of their own management not being forensically trained, 4/6 (66.6%) managers in this study are forensically trained because they were former FIS. As former FIS, all four manager's forensic training was at least 20 years old and may suggest their knowledge is outdated. Two in 6 managers within FIUs hold the highest rank within the unit and lack formal forensic identification training. Participants emphasize that civilians rarely hold managerial positions within FIUs which they attribute to the existing culture and dynamics within law enforcement agencies. However, within this research, a unique opportunity existed to interview one civilian member who managed an FIU:

They passed through something like five or six captains in nine years, so the roll out was too fast. The people come in, they make a year or half a year and they move on with no advancements made during those times. So, when they put me in, we started to move forward in bringing new technologies, seeing how it works in the field and the idea behind this was by putting a scientist into that chair, this guy is going to push innovation. I was the first civilian in history to manage a unit like this. I'm not there anymore and the innovations won't move forward because the guy who replaced me was a police officer – he's going to protect police officers up to debt, that's for sure. (Participant 02C)

As participant 02C illustrates, civilian management is keen to promote new scientific innovations, whereas sworn management tend to have less understanding of the scientific aspects of FIUs, and therefore do not have the knowledge to promote the newest technology. It is also evident from participant 02C's sentiment that sworn management lacks interest in pursuing a career in FIUs which results in leadership being "voluntold" to specialty units in the promotional process. As participant 02C asserts, a lack of investment and interest contributes to "a revolving door" of FIU management which gravely impacts the culture and systemic support for members within FIUs. FIS also believe that management's lack of scientific knowledge and ability leads to an increased workload for FIS as they become responsible for filling the forensic gaps for their superiors. Participant 59S reflects on how taxing the lack of investment from FIU management is on FIS' day-to-day roles:

The issue for us is having supervisors who are not trained, whenever we do an identification or work a case, normally you would give it to a supervisor for the verification - we cannot do that because they don't know, so we have to give it to another Constable. So basically, we end up doing the supervisor's forensic job for them, so it puts more casework on to us. We used to joke when we had a homicide, "who's the inspector this week?" So, the transient leadership really is detrimental because we do not have any consistency of leadership, it's very sporadic. (Participant 59S)

Not only does the lack of enthusiasm impact FIS, but civilians are also impacted by management in FIUs. Civilians believe that due to the sworn nature of FIU management, the full potential of civilians is underappreciated and having to manage another category of employee outside of sworn officers is challenging for leadership. Of the CFIMs who discussed their experiences with management, 10/20 (50%) felt underappreciated and that their opinions were not valued by superiors. Civilians also report that their responsibilities are affected by their superiors (Sergeants, Staff Sergeants, and Inspectors) in charge and the value they attribute towards civilians generally. As such, civilian opportunities in terms of case work, training and mental health resources depend on whether management held "progressive or conservative" views of civilians' place within policing. Hence, managements attitude towards civilians substantially impacts the experiences of civilians:

A lot of the pushback we've gotten in our position has come directly from way up the chain. Depending on who's been in charge over the course of my 10 years in this agency, sets the tone for whether or not we're going to be doing anything major or minor and whether or not we're going to have negative attitudes in the office. So, the issue is that a lot of the negativity comes directly from the Inspectors who voice that civilians shouldn't be going to these things, civilians shouldn't be responsible for these things and the Staff Sergeants agree with that and then that attitude festers and creates a two-tiered system in our offices. There's a lot of passive aggressive negativity towards us as well from upper management. (Participant 32C)

Participant 32C reflects how systemically embedded perceptions of civilians can greatly hinder their roles and responsibilities, while also influencing their relationships with colleagues. Participant 24C's experiences further signify the detrimental impact that restrictions on civilian roles have:

It really depends on the supervisor in the office. When I began, I was really lucky and had an amazing supervisor that treated me as an equal, and I got to go to various scenes, I felt like I was a useful part of the team. Unfortunately, they left the unit, and I was provided with a

different supervisor, who I felt did not treat me as an equal and only allowed me to go do recovered stolen vehicles and process exhibits in office. So, I did not feel like I was being properly utilized for over a year. There were instances where they [FIS] would say, "who's working in the office", and I was sitting right there, and I am clearly working but they don't count me because I'm working in an office because I can't take calls. (Participant 24C)

When CFIM roles are gravely restricted, their value is undermined and excludes them from being an involved and valuable member to the team. In addition, it diminishes their physical presence as they are not seen by FIS as contributing members to the overall function of FIUs.

4.1.1.3. Civilian(s)

Though FIS have a standardized job title across Canada, the same cannot be said about civilians in FIUs. Dependent upon agency type, civilians may be referred to the same as sworn officers (FIS), they may be called Forensic Identification Assistants (FIAs), Forensic Evidence Technicians (FETs) or Certified Forensic Identification Assistants (CFIAs). However, for the purpose of this section and the following write up I have decided to classify them as Civilian Forensic Identification Members (CFIM). The importance and justification for this title will be discussed at length in later sections of the results.

The implementation of civilians into municipal FIUs remains in its infancy, while the RCMP created CFIM positions almost a decade ago. Since the initial implementation of civilians in RCMP FIUs, participants explain that civilian roles have evolved and then retracted over time:

We started the (civilian) program in early 2012, 2013. Over the years, we did have some rockiness at first when it came into place because not everybody knew the roles and functions – FIAs were kind of let out of the barn and no one was holding the leash, as a metaphor, so they got to do almost everything and then there was some risk management that took place and the roles and responsibilities changed. It wasn't pleasant for them as they were kind of free reins and then they were put within the sandbox. (Participant 03S)

CFIMs are unarmed, do not have training in subject control tactics and could not protect themselves if a safety risk arose while processing a scene. Thus, CFIM roles and responsibilities within FIUs are restricted to processing crime scenes of offences deemed "less serious" in nature due to the reported safety concerns that exist at volatile

crime scenes. Like their title, CFIMs roles and responsibilities depend upon which agency they are members of and in which province their work takes place. In certain provinces, CFIMs are responsible for attending vehicular accidents, break and enters, and stolen automobile scenes, while other provinces restrict the civilian role to processing exhibits and tending to other matters relating to identification of decedents within a secure office. Fifteen of 20 (75%) CFIMs believe they are not being used to their full utility due to policy restrictions placed on their roles and responsibilities:

At this point, it's definitely very silo-ized and very separate as to what the civilian is allowed to do versus what the Forensic Identification Officers would be allowed to do. Some days it is kind of tough, you're part of a team but you're also kind of not part of the team because you do have a different role, you don't perform the same tasks, so, although you are part of the overall cog that's kind of turning or that overall wheel, you only play a very limited role. (Participant 37C)

It was apparent during interviews that CFIMs not being used to their full utility caused substantial frustration because not only do they feel beyond qualified for their position but more than competent to fulfill the same role as their sworn counterparts.

Unlike their sworn counterparts, CFIMs testify drastically less in court due to their limited responsibilities within FIUs and lack of involvement at major crime scenes. Only 6/20 (30%) CFIMs could discuss their experiences testifying in court, whereas every FIS in the sample had testified at least once on forensic evidence. Though civilians are subpoenaed, they rarely testify on the evidence they have processed and analyzed because the court players tend to reach a verdict before forensic evidence is introduced. Many attributed this to being a result of the types of cases they process within their role.

4.1.1.4. Instructor(s)

All instructors have practical experience working within crime scenes units prior to becoming an instructor in a forensic program. Some were former FIS while others were civilians with varied roles in FIUs. Having previous experience in the discipline was crucial for instructors as they saw firsthand experience as necessary for one's ability to teach the future generation of CSIs:

If you really look at why I ended up being at the university level is because I felt that for one thing, there are many forensic programs that are out there that are being taught by academics that have never been involved in forensic science and have never stepped foot in a crime

scene, so they are essentially teaching a course on forensic science out of a textbook. So, I felt that the programs needed people that had that practitioner spin and the reason I continued in my education was I wanted to make sure that I had the academic background to not only just teach students but to understand the best pedagogy and how do you apply science to forensic science? (Participant 29S/I)

Participant 29S/I's sentiment highlights the lack of practitioner-led courses within post secondary as being the primary impetus behind wanting to become an instructor as it allows them to bridge the gap between academia and policing.

The primary responsibility of the instructors at the police colleges is to teach FIU personnel the "Basic Forensic Identification Course." Professors at forensic science programs within Canadian universities educate undergraduate and graduate students about theoretical and practical perspectives within the discipline. University instructors are responsible for producing top quality students who will make meaningful contributions to the field of CSI, regardless of the role they choose:

They're prepared when they take these forensic science programs, they have a good grasp and a good understanding of forensic science in general and make themselves good candidates for these positions that are becoming available - maybe they want to go into policing, maybe they want to do civilian positions, but it gives them a good foundation and I think that they provide a higher caliber of candidate for doing that position than what they would if they were just transitioning from another area of policing into FIUs. (Participant 07S/I)

Participant 07S/I's sentiment signifies the importance of forensic science education in building solid scientific foundations that will enhance the quality of candidates entering FIUs. It further highlights how the skills sworn officers glean from working in other areas of law enforcement may not always be advantageous to working in forensics.

4.1.2. Hiring Requirements of Canadian CSI Personnel

An important distinction made by participants was the requirements of sworn and civilian personnel in FIUs at the time of hiring. This section will highlight the vast differences in the internal selection processes for sworn and civilian personnel wanting to work in FIUs.

4.1.2.1. Sworn(s)

Formal education requirements for sworn officers in the hiring process with FIUs do not exist. Participants identify that currently most policing agencies require some form of post-secondary education from officers at the time of initial hire, but there is no stipulation of a specific type of degree. As such, sworn officers rarely enter FIUs with post-secondary education in forensic science:

Really, we're getting people who come in here who don't have any forensic training at all - they just happen to be competent police officers who were looking for a new challenge. I mean I had absolutely nothing when I came in and two weeks before the posting went out (for the FIU), it was never in my mind that I was going to work in forensics. (Participant 56S)

In policing, you have people who are just all trained in the exact same way, with the exact same things and that's all they know. They're not coming in with any previous experience, knowledge, or skills and abilities that can assist in forensics. (Participant 15S/I)

Participant 56S and 15S/I highlight the lack of forensic specific requirements for FIS and while applicants may be competent police officers, these skills are not transferable into every aspect of law enforcement. Participant 56S reflects the reality that not all sworn officers have a vested interest to work in forensics but are given opportunities to work in areas they know little to nothing about by virtue of the generalist nature within policing.

One existing requirement for FIS is the number of years completed on general patrol before being considered for specialty units like FIUs. Agency dependent, there is wide variation in the number of years required before qualifying, ranging between two and five. Participants note the expectation of prior years of service has been declining due to the ever-increasing difficulty filling FIU positions:

That's something that has changed over the years as well - we used to require officers to be what's called a first-class constable before they apply which basically meant that they needed to have five years of service on the frontline before they were eligible to apply but we found that we were just having a really difficult time filling our positions that way. So, it's been reduced and reduced and reduced - now you only need maybe two years of frontline investigative experience in order to join, so really . . . they don't have to have a lot of experience. (Participant 36S)

While the RCMP has implemented standardized aptitude testing as a requirement for all sworn officers applying to FIUs, municipal agencies remain informal in

their aptitude testing of FIU applicants. Participant 43C/S expresses their frustration around the lack of formal requirements in municipal agencies at the time of hire:

Nothing formal it is just informal which is not the best idea because you're throwing them in with the wolves, "go to CPC, we're going to fork out \$25,000 for your training and if you come back not liking it, or you come back and you suck at it, oops, we just dropped \$25,000 in the air" - how about you take the precautions and you actually present these individuals with a test of sorts to see if they're at the right playing field first.

As participant 43C/S asserts, agencies must take the internal hiring process seriously to ensure candidates have an aptitude for the work before investing time and money to get them forensically trained. Participant 43C/S highlights that being proactive when hiring FIS will ensure the candidate understands what the role entails and has an interest in pursuing that area of law enforcement. Further, their sentiment emphasizes that the work in FIUs is not for everyone and employment as a sworn officer does not guarantee the required competency for forensic identification.

4.1.2.2. Civilian(s)

Civilian hiring requirements are much more stringent with some requiring a bachelor's degree in a related field and others expecting a master's degree. Evidently, much greater emphasis is placed on education and skill sets at the time of hire.

Participant 08C explains why education is a critical requirement for applicants of FIUs:

A couple of years ago, we were solidifying our position with the city and (management) asked what kind of education level is needed for our position. For us, education was a major sticking point because management looked at us and said, "you're doing the equivalent, if not a bit less, you're not going to scenes - the sworn officers aren't required to have a degree, they're not required to have anything over a high school diploma, we teach them everything." But we were trying to tell them that for our position, you need to at least show that you have the drive to have a degree, it doesn't have to be a degree in forensics but show that you can apply yourself. It was definitely something we had an issue with, but it was something worth fighting for and that's where we've differed on things with management and the sworn side.

Participant 08C's experiences illustrate the long-standing ideologies within policing culture relating to the necessity of higher education. Participant 15S/I reaffirms these beliefs:

There's a lot of people spending a lot of time in the forensic field without those academic qualifications and becoming of the belief "well, I didn't need it, so no one else should need it either" and following that philosophy of if I can be successful and I can spend 10 years in forensics, I don't have these academic qualifications, well what do we need them for? (Participant 15S/I)

Like FIS, aptitude testing for CFIMs across municipal agencies is informal but within RCMP aptitude tests are a standardized requirement. Aside from the educational requirements, informal requirements such as the ability to obtain peace officer status, photography experience, the ability to drive police vehicles and lift a certain number of pounds are assets:

There is a certain level of physical criteria required. For example, one of the requirements was being willing and able to drive police vehicles because you have to drive to a crime scene. Some of the other ones were willing to work bizarre shifts or long shifts, willing and able to work overtime, given that with this job it's very rarely a nine to five. Ability to work the cameras . . . when you get the flash attached and everything else, it's not light. Especially when trying to get that specific angle, you may be contorting yourself to get an undershot - there is more physicality than portrayed in the TV shows. (Participant 28C)

The distinctions between internal hiring processes for civilians compared to their sworn counterparts should now be evident. Much greater emphasis is placed on civilians having previous experiences, skills and knowledge that are specific to the role in FIUs and make them qualified candidates specifically for forensics.

4.1.3. Training of Canadian CSI Personnel

This section explores training received by sworn and civilian personnel to conduct crime scene investigation work within Canada and offers insight into existing gaps in CFIM training.

4.1.3.1. Sworn(s)

All FIS, depending on agency and location, attend eight weeks of training at the Canadian Police College or the Ontario Police College for Forensic Identification training. The curriculum includes theory of CSI, collection techniques for evidence, fingerprinting, photography, chemical processing, a brief overview of speciality areas (footwear and tire track impressions, blood stain analysis) and providing expert testimony in the court. Members are tested on their skills in the final week of training to determine their

suitability for the unit, through a mock trial and a major final examination. Beyond the formal training, the police colleges offer an abundance of courses for FIS interested in becoming qualified as experts in specific areas of expertise such as blood stain pattern analysis.

The timing of the formal FIS training course was alarming. Specifically, FIS and CFIMs discuss having already processed major crime scenes before being formally trained. Participant 59S stresses that this reality may not have positive implications:

So, what's happening now is officers come to us (from patrol), and we have to train them on the job as they go, so we have members who come to the unit and not even two months later, they're photographing and collecting evidence for a homicide but they haven't had any formal training. By the time we go to court in two years, they will have received the training but they're going to get taught what they missed at the last homicide. So, it's going to be interesting to see in a year or two, when they get to trial if they get challenged on their expertise or level of training because at that point they were still learning. (Participant 59S)

I was delayed getting there [CPC training] because they prioritize regular members on that course before me. So, I waited over a year to get onto that course and by that time I had processed many, many files, and so for me, it was extremely easy - I did not spend any extra time studying or anything. (Participant 24C)

Experiential learning in the context of forensic identification is concerning as it reflects that real casework may be based on trial and error. Additionally, participant 24C's experiences reflect policies within law enforcement that have traditionally reserved training opportunities for sworn officers only. As participants 56S and 15S/I emphasize, their agencies uphold strict limitations throughout the training period to safeguard injustices from occurring:

So, there's very strict limitations on what you're able to speak to with reference to forensic evidence and what you're able to do based on what step you are throughout your level of training. (Participant 56S)

With (agency name), it's not until you complete that course that you're authorized to make any fingerprint identifications. So, you have to have that basic course before you can offer yourself as an expert in court, so to speak. (Participant 15S/I)

Participants endorse the RCMP training process and subsequent apprenticeship program as the gold standard amongst Canadian law enforcement agencies, noting they do not "throw them to the wolves" right after the completion of the 8-week training course

“like municipal agencies tend to do”. The RCMP offers a rigorous program following the training at the College to ensure a qualified and experienced FIS oversees the work of the recently trained individual, formally known as a three-year apprenticeship understudy.

4.1.3.2. Civilian(s)

Unlike FIS, CFIM’s training is not standardized across Canada. Only 7/20 (35%) of the civilians interviewed were sent for the 8-week training at the police colleges. One civilian was sent to the police college for two weeks of the eight to learn the basics of photography and fingerprinting but did not continue for “full completion.” The remaining 12/20 (60%) civilians had informal training, typically in-house courses that included fingerprinting, photography or photoshop, but nothing official that “certified” them to do identifications. RCMP CFIMs had standardized training regardless of province with all civilians sent to the CPC with the same training and qualifications as their sworn counterparts:

They didn't start sending civilians to the Canadian Police College on the course until, well, essentially, I went on the first course with all of them. We were all trained at the same time so, I perceive them having the same amount of knowledge experience about this job from a forensics point, as I do. (Participant 35S)

One of the main reasons attributed to CFIMs not being used to their full capacity in FIUs was their lack of formal training from the police colleges. Systemically, training opportunities are reserved for sworn officers:

We were not given permission to go to the Police College, that's reserved for sworn officers, mostly because that's the way it's always been done and, we only have limited spots every year. Because of not being able to attend, there is some things that I can't do because I didn't learn it from the Police College even though I did it in school, even though it's something I'm comfortable with, I'm just technically not supposed to be doing it unless I have the documentation from the Police College saying that I was trained to do it. (Participant 38C)

I think everybody's supportive of it (civilians attending formal training), it's just a matter of making sure all the sworn officers in our office are trained. I am going to the OPC for the chemical course at the end of May, I will be the first one to go to a proper Police College course - so that would allow me to just do all the chemical testing in the lab without any supervision which currently we have to have somebody supervise us because we're not technically trained in that. Our service is very supportive of giving us more training so that we can be of more

assistance at the crime scenes with the investigators, and not just a little gopher and grabbing bags and holding things and so that we can actually help them out with a lot of their work. (Participant 49C)

Although civilians feel capable based on their post-secondary education training, they are not of full operational benefit to FIUs because they lack Police College certification. In addition, civilian training is inconsistent, and civilians must seek out and ask permission for training opportunities and are not automatically invited. Similar to FIS, civilian training was not timely, and out of the seven civilians who received training, four received training after processing many fingerprint identifications or having examined many crime scenes.

4.2. It's All About Perspective: The Value of Training & Education

Participants have distinct perspectives of the value of the police college training and post-secondary education. Participant 02C eloquently summarizes the distinction:

When you talk with [a] police officer from the police colleges they say, "well, I passed eight-weeks at the Police College, I'm trained, I'm really good, and I know everything". When you talk to somebody who goes to university they say, "well, you got eight-week training, I got four-year training and I know I don't know anything - I don't know everything yet."

4.2.1. The Value of Training

FIS, CFIMs and Instructors believe the training offered at the police colleges was valuable in varying capacities. Fourteen of 18 (77.7%) FIS perceive the colleges as sufficient for teaching the level of knowledge required to meet the expected standard within law enforcement:

Part of what they teach you at CPC is the biology of fingerprints which is very basic but at the same time . . . it's more than adequate for court purposes and fingerprint identification. What I know, based on my education is way over the top what I do for my job. I don't have a forensics education from university, so I don't know what those programs entail but what I learned from the police college course was more than enough for me to do my job and do it well. (Participant 35S)

Ten of 18 (55.5%) FIS acknowledge the teachings at the colleges are rudimentary, however, also suggest that despite the shortcomings of the training, its enough to do

their job. Although participant 35S does not have forensic science education, they believe the colleges teach the necessities required for the role within law enforcements realm of practicing forensic science. Additionally, participant 35S's sentiment indicates that university level education may be excessive for the knowledge required to conduct police driven forensic science. Participant 41S believes post-secondary education is an unfavourable asset within FIUs because those with an education have difficulty confining their educational knowledge to adhere to the police colleges expectations:

I think a lot of people assume to go into Ident. you have to have some kind of heavy science background. I find (educational background) more detrimental because they are much more set in their ways of what they've learned as opposed to just allowing the College to teach you the standardized way they want it done. I have yet to propose a problem and had somebody say "well, this one time I learned this at university," that solved the problem, versus I've gotten tons of good advice from people who have experience but no educational background. (Participant 41S)

Furthermore, 14/18 (77.7%) FIS place substantial value on training as they perceived it to be advantageous to one's credibility in court. Staying current with training maintains knowledge, competency, and the expertise of FIS, which is essential for the players in a courtroom assessing expert reliability:

Trying to explain to the upper management that these are the training we need to stay current and stay certified, and they are like "well just do the fingerprint, you don't need extra training." As an expert, you must be up to date because when we testify, we get challenged in court. I had a challenge recently - I was testifying on footprints and fingerprints and my training in fingerprints is a massive amount but my footwear training is very small in comparison. So, the defense challenged me on "how come you got this much training in fingerprints and you're certified but not as much in footwear." I was very close to losing the footwear impressions at trial and in that particular case, they were very important to the case. (Participant 59S)

FIS were particularly concerned about how they impacted case law and the consequences that stem from not maintaining their certification in various forensic disciplines. Participant 59S's sentiment signifies that when management themselves are not forensically trained, they fail to comprehend why continual training opportunities are pivotal to forensic experts' experiences in a court of law.

Opinions were divided about the value of police college training. Despite some finding it sufficient, one instructor and seven civilians (8/45) felt the colleges fail to provide an adequate understanding of the scientific principles and knowledge necessary:

There's a difference between education and training and an education is what I believe is what people need to have prior to going into the field and then receiving training on this. So, for instance, if a Forensic Identification Officer is giving scientific evidence on a fingerprint comparison or a bloodstain pattern analysis or something like that and they don't have a science education, I'm not quite sure how they could be providing evidence on science from just a training background. One of the reasons I went back to university and started an undergrad in science part time while I was working full time was because some of the questions that arose. I thought I needed to know more about science because I didn't quite understand some of the principles that they were discussing and asking us to use. I think that can answer your question on what I thought about some of the training there. (Participant 29S/I)

Participant 29S/I who experienced police college training as an FIS and has obtained high levels of post-secondary education, stresses that police college training is simply not sufficient to provide expert testimony on scientific evidence in a court of law. In fact, participant 02C states the police college courses are exactly that, geared towards police officers and created by sworn officers themselves:

At the end of the day, my colleague got a Bachelor, a master's degree in forensic science and he worked for the police as a crime scene technician for years, they decided to send him on the course (Police College). He learned absolutely nothing over there, I know the instructors from the Police College don't like him at all because he was asking questions and they couldn't understand or answer. Because as a matter of fact, the Police College training is made by police officers, it is not made by civilians from the academy, it's police officer stuff - so it's a big, big problem there. (Participant 02C)

FIS unfamiliar with post-secondary learning may be more accepting of the colleges teaching methods because the delivery is from "one of their brothers or sisters". Additionally, FIS may accept the education received at the police colleges as they lack formal learning opportunities outside of the police institutions and may not know any better.

4.2.2. The Value of Education

Generally, participants appreciated higher education for its ability to enhance critical thinking, organization, and problem-solving skills. Despite education providing the

fundamental framework for interpretation and analysis, 15/45 (33.3%) participants believe the practicality of these skills may not always translate into CSI work:

Academia prepares you for a certain way of thinking, a certain framing of a problem and making sure that you're not looking for the answer you wish for, that you will consider the limitations of what you're doing and you're quite open about and not embarrassed by them. That's a different philosophy than a police officer who is doing work that could eventually lead to court where you are testifying in court and your evidence and your opinion has significant impact on at least one individual. So, in those circumstances being comfortable with error and making mistakes has a completely different framework . . . but academia also has its limitations too - sometimes we come up with very elegant scientific solutions that are completely impractical. It may be a fantastic solution, it works lovely in a pristine laboratory but translating that to a crime scene that's filthy, dynamic and an ever-changing environment, it's not stable, you have limited time, some evidence is very fleeting - it just doesn't translate. (Participant 04C)

As participant 04C experiences reflect, the skills developed within university settings can have distinct implications in the real world, such as a court of law. Participants highlight that the paramilitary nature of law enforcement focuses less on formal education, including the upkeep of academia and proficiency testing. Instead, policing culture tends to place less value on education and is hesitant to adopt the inquiry methods of learned through post-secondary studies:

In an academic setting, you learn it like rote learning, you memorize it because you need to write a test. Whereas on the job training, you learn it, because you need to learn it, because you're going to look stupid and that sticks a lot more. So, when you lose your first case and all your evidence gets tossed out, and everybody's shaming you, you remember that and that's when the learning starts. You can teach note book taking in an academic setting but putting it to real life use when you're on a court stand, you've been sworn in and they ask you about something and you're frantically flipping through your notes because you didn't make subtitles, your pages aren't numbered, and you don't know where to find anything - I'll tell you the minute it takes you to find it, you feel like your face going red and your heart beating faster - you need to learn how to do it in the real world. (Participant 25S/I)

Participant 25S/I argues that field training has a greater impact for sworn officers than education because it provides an opportunity for hands-on experiential learning. They also suggest that classroom learning does not always equate to real-world circumstances because in the real world, one's reputation is on the line and becomes more than just a grade given on a piece of paper.

Distinctions of why education was meaningful for FIS and CFIMs are emphasized. Sworn participants believe the primary benefit of attaining a higher education was to advance their promotional opportunities for career growth. Additionally, FIS claim that higher education improved their legitimacy when testifying in a court of law “by adding another line on their Curriculum Vitae (CV).” Therefore, many FIS discuss enrolling in the Bachelor of Forensic Identification from Laurentian University after recognizing the value of furthering education once in the unit. Of note, this program is instructed and created by police officers and only allows sworn FIS to enroll. However, as time evolves, the program at Laurentian does not appear to be as popular for FIS as it once was.

Contrarily, CFIMs stress the importance of education to provide a sound understanding of the scientific principles and techniques used daily as a CSI. Additionally, all seven CFIMs who attended training at the police colleges believe a four-year degree may be more in-depth scientifically than the content taught at the police colleges:

I don't think (sworn) actually get the real technical knowledge that would be useful if they did a scientific degree. So, a lot of the officers that I worked with in the ident. unit they do nine weeks of training at the Police College . . . so that is useful but nine weeks is nothing compared to a degree. It's like a crash course for them, and a lot of them are coming in with very limited schooling background anyway. (Participant 12C/S)

The colleges are good at getting them [sworn officers] through “this is your process, this is how you do this, these are the most common things” but they don't always get the follow up on specialty techniques. So, it's partly training, but also, I think, because they don't have the forensics background, they don't know to ask. For example, if I'm doing something and I'm like “well, this might be good way to do this”, I might just go ask somebody like, “hey, do we have this equipment or is this here I'd like to try this out”, and we'll either have the equipment or we won't but because I have a background I know to ask, I think with them [sworn] because they're being brought in and being taught you do XYZ, they don't have the background to realize that there's more options out there. (Participant 55C)

Concerns voiced by participants, like 12C/S, reflect that the training provided by the police colleges may not be sufficient for the role and encourages the fulfilling of a check list procedure while at crime scenes. CFIMs also note that when working along side FIS colleagues, some process a scene using a check list which greatly hinders their ability to

“think outside the box”. The use of check list methods indicate FIS understand the science at surface level but are unable to adapt when necessary:

Sometimes police officers apply techniques, but they don't understand it. So, if you have to adapt yourself in a situation, they won't be able to adapt. The civilian is going to come with the knowledge. Let's say we got a special surface, and you want to find a fingermark and the technique usually requires you to rinse it but, in that situation, because you already got water there, you don't have to rinse it - so the police officers going to rinse it anyway. The technique says you should do that so they are going to apply the recipe just like if I'm cooking something. But in crime scenes, the situation is going to change, you're going to adapt yourself, you have to sometimes tweak the technique a little bit to make sure it's going to work and that's not always the case when we're talking about police officer. (Participant 02C)

CFIMs attribute FIS' lack of understanding to not having post-secondary education in the forensic sciences. Participant 43C/S emphasizes that sworn officers can absolutely do a satisfactory job within FIUs without any scientific background. However, they also note a substantial improvement in knowledge and capability if one does obtain science education:

I feel that a police officer can come into the Ident. unit and be successful, I think he will be able to do the job and potentially do the job well. I think if you come into the forensic unit with a scientific background or a foundation in forensics, you're that much further ahead, you will excel beyond what your average sworn police officer would be able to. (Participant 43C/S)

4.3. A Career or a Stepping Stone?

The dual roles of police officers in Canada may be a double-edged sword in specialized units like FIUs. Alternatively, civilians may offer longevity that FIUs need to maintain expertise within the unit. This section outlines the unique challenges faced by sworn officers with multiple hats and shows how civilians play a role in counteracting these challenges.

4.3.1. 'They are a Police Officer First'

FIS with previous experience on general patrol enter FIUs with investigative skills and proficiency in policing. Thirty six of 45 (80%) FIS and CFIMs believe police officer

experience is essential to understanding criminal behavior and provided unique advantages when processing crime scenes:

It's an understanding of how files progress and which types of evidence actually get transferred into a courtroom. Coming into forensics, I have the knowledge of how cases are going to progress, the investigation and how I can support them because ultimately, we are a support unit. I've gone to a break and enter as a Constable in patrol 1000s of times before I was in forensics and had to start thinking about the criminal aspect of identifying somebody there. So, it wasn't brand new and random exposure - it was stuff that I had seen, I just now had to think of it in a different light. (Participant 56S)

FIS are commended for their thorough understanding of executing and writing warrants, search and seizure powers, knowledge of the law, the flow of an investigation, and understanding personnel's roles in crime scene case management. However, an additional skill gleaned as police officers is the training and capability to apprehend a suspect if necessary. Participant 15S/I asserts that due to the uncertainty at crime scenes, personnel safety may be an important aspect to consider:

Well, there's always the safety aspect and that's where policing has always held on to (forensics) here in Canada. There's the basic idea that inside a crime scene there is a presence for a threat. There's been times that I've been at crime scenes and the offender has not been found and at any time an offender may return to that crime scene to try to destroy evidence and that would pose a security threat to an untrained, unarmed civilian member. So, there's always that need from an officer safety perspective to have a police level of continuity and security to crime scenes, there's always a need from a legal perspective that police officers are the ones executing search warrants. (Participant 15S/I)

The experiences shared by participant 15S/I highlight the reasons law enforcement has traditionally held on to the belief that sworn officers are essential for crime scene work. Their sentiment further signifies how policies and procedures found within law enforcement and the Canadian legal are systemically geared towards sworn officers fulfilling all law enforcement roles.

4.3.1.1. *'They are not just the Ident. Member, They Wear Many Hats'*

Beyond the day-to-day responsibilities of FIS within FIUs, sworn officers are expected to support every department within their respective agency when and as necessary. As such, FIS must "flick a switch" and go back to being a patrol member when "boots on the ground" are needed. Additionally, when duty calls, personal life

matters are expected to become second priority. As Participant 28C highlights, civilians are not held to the same degree of responsibility that police mandates hold sworn officers to:

Well, as an as an example, because of the trucker situation going on in Ottawa, they've been drawing a lot of members from the division to go and support Ottawa. As a civilian, I have zero obligation to go do that. To a police officer, they can say, "no, I don't care that it is your daughter's wedding, you're going". (Participant 28C)

The versatility of sworn officer skills and the possibility of redeployment while working in specialized units emphasizes their duty to always wear many hats:

The US Marine Core has a saying – "every man a rifleman" and the idea is that everybody comes in through the same door and follows the same process and has the same training and at different points during your career, you might be the person who's in charge of purchasing firearms and ammunition or you might be the person who's in charge of scheduling but if you had to you could very quickly go back to being a rifleman. (Participant 06S)

Participant 06S's statement signifies that while there is opportunity for sworn officers to gain experience in specialty functions of policing, they ultimately remain a police officer at their core and may be required to return to generalist policing duties.

'Our Members are Really the Jack of All Trades': Too Many Hats?

FIS also wear many hats within FIUs and were frequently referred to as 'generalists' because their role requires expertise in several disciplines of forensic science. Specifically, they must obtain and maintain expertise in fingerprinting, bloodstain pattern analysis, footwear, and tire track impressions, to name a few:

I'm also the generalist, I can go to calls for friction ridge, footwear, physical match - all of those things is what we would call a generalist. On top of that, I do blood pattern analysis which in itself is a bit difficult. Whereas if you've got a civilian expert who's a blood pattern analyst, I almost expect the civilian to say that's all they do and you're going to keep going to all the training courses, keep updated with your certifications and kept up to standard through annually proficiency testing. Whereas on the police side it's harder to do because of the weight they put to that education, training, certification proficiency testing and not having the qualifications that a civilian would have because you're a constable and constables are interchangeable within the organization. It's very hard for the police officer to do that you're a generalist forensic identification member, so you go to any kind of scene, doesn't matter what it is - a little break and enter, assault as well

as the major scenes, such as the homicides where you are a primary member for crime scenes. (Participant 09S)

The experiences of participant 09S demonstrate the excessive demands placed on sworn officers who hold protective and forensic roles simultaneously. Participant 09S signifies that civilians wearing one hat may be beneficial as it allows them to hone their expertise and dedicate more time to maintaining proficiencies. The expectation to be a generalist in forensics poses significant challenges for FIS members who must maintain proficiency in each discipline while ensuring casework is completed in a timely manner:

The burnout, like I said, I think we ask too much of our people, I think we spread them a little bit too thin in that we're asking them to be a jack of all trades and it's really difficult. (Participant 34S/I)

4.3.2. 'Civilians are the Glue that Holds Everything Together': The Longevity Civilians Offer FIUs

As previously discussed, sworn officers are versatile and may transition into multiple roles throughout their career while remaining an asset to law enforcement. Alternatively, civilians have very specialized education and knowledge and thus, are hired for very specific tasks and have less transferable skill sets, making it difficult for lateral movement into other roles within law enforcement:

They (sworn) move into crime scene investigation, I send them for training, they come back, they finish the first year and then they move for Sergeant or they move for whatever. Civilians couldn't move - there's only one position. As a civilian, if you want to move forward or elsewhere, you will have a big choice to make. You won't find anything related to science anywhere in relation to the police department. If we talk about police officer, well, every job is a police job is just a different police job. (Participant 02C)

A strong culture around career direction and promotion was identified amongst sworn officers, which is reinforced by the generalist nature of contemporary policing. One consequence of promoting career advancement is the frequent turn over of sworn officers in specialty units:

The problem is the way it is right now in Canada, they rotate through forensics, so policing is very much geared towards being promoted and the way you get promoted is you gain experience in different departments - the problem with that is if someone's coming into forensics because a) they are a Sergeant and they don't have a choice and they just go wherever they're needed or b) they're a Detective

Constable (DC) looking to be promoted into a Sergeant and they're looking to go into a specialized unit just to get that promotion - you're not there for the right reason. (Participant 38C)

Participant 38C points out the strong promotional culture among superiors which hinders their reliability and longevity within speciality units. Despite the abundance of opportunities for career progression on the sworn officer side, opportunities for CFIM promotional advancements are lacking. Regardless of the lack of promotional opportunities, CFIMs expressed their desire to fulfill a “15, 20, 25, 30-year career” because of their substantial time investment to become educated in this field. Hence, when civilians are hired, agencies retain devoted employees who fulfill one specific role rather than being “spread thin” juggling dual roles:

I've been in the office for 13 years, the next longest person in the office has been there for five. So, as the civilian we live there, we have roots, it's what I want to do and we tend to be a lot more stable in the unit. Personally, sometimes I feel very much like the foundation or the bedrock of the unit because everyone else like working around me is a revolving door. I'm the one keeping everything moving – what do we call that? Institutional memory, I am the institutional memory. (Participant 28C)

A big benefit of civilians in [FIUs] is the expertise that you will maintain in the unit and the history there. Whereas a lot of Police Officers are only in a Forensic Identification Unit for around that eight-year mark, so, all the training and experience they bring leaves again. Whereas with a Civilian, you're probably not transferring out of that unit, so all the training, education, and experience that you gain is going to stay there. Some of the things that take longer to train for, like a blood pattern expert, it takes five or so years to train for that, so if your officer only stays for eight years, by the time they complete the Forensic Identification training course and the other advanced courses required, they're almost out of the unit and you're not necessarily maintaining that experience within the unit. So, there are certain things within the unit that the longevity and history really does lend itself to. (Participant 37C)

Civilians offer enhanced permanency and consistency to units like FIUs. Hence, this may be indicative of CFIMs having more experience than their FIS counterparts because they are repeatedly doing forensic tasks throughout a lengthy career rather than continuously jumping from unit to unit:

A civilians' expertise is that much higher because they're doing that full time - all they do is latent prints, so their expertise is way better than someone like myself who is a generalist who does a bit of everything, so you're going to have a difference in expertise that way. Whereas a

civilian, they're not going to get moved around as much - it's harder to say like, "okay, you're done doing latent prints, I'm gonna put you in charge of traffic" - unfortunately, it's not the same thing, it's a very different discipline. (Participant 59S)

Although CFIM skills are less transferable, their stability within FIUs allows them to hone their skill sets and, become experts in one specific field which may be advantageous in a court of law.

4.3.3. 'I Didn't Kill Myself Through Physics Every Year Because I Wanted a Promotion, I'm Here Because I Want to Be Here': The Motives Behind Joining Ident.

One unique distinction made between FIS and CFIM was their motivations for joining FIUs. CFIMs emphasize their passion for a career in forensics started at a very young age:

I think you'd maybe get a different level of enthusiasm from people who have been wanting to be in forensics since they were seven years old. I myself was seven and saw it on TV and said, "I want to do that". As opposed to someone who had no thoughts of forensics until they were 32 and just wanted off the street. (Participant 05C)

For all CFIMs, their interest in forensics sparked the focus of their entire post-secondary education in hopes of attaining a civilian position within FIUs. Within Canada, CSI work was historically reserved for police officers limiting civilian opportunities in FIUs. Hence, it was critical for CFIMs to invest time, motivation, and effort over many years to succeed in the competition for their dream career:

Not many people enter the police force with the mindset that, "yes, I'm entering policing because I want to go into the Forensic Identification Unit." People that go into the forensic academic world go into it because they say, "I want to do forensics, I'm passionate about forensics" and here you are with a sworn officer that one day woke up and said, "I want to switch units, I don't want to work patrols anymore, maybe I'll apply to the forensic unit" - you are going to get two different types of quality of work, I bet. (Participant 43C/S)

Additionally, participants who attended post-secondary highlighted the intense competition because thousands of undergraduate and graduate students in forensic science-related programs seek forensic civilian positions. The results are a substantial pool of qualified civilian candidates when a position becomes available:

Boy, we post a position as a civilian forensic investigator and we've got hundreds of applicants overnight, so we've got a much larger pool to draw upon on the civilian side of the house. (Participant 62S)

Alternatively, the candidate pool is drastically smaller for sworn officers interested in forensic identification. One reasons for the lack of interest was the “heavy workload and responsibility associated with the FIS role”:

In our Forensics unit, we don't have people lining up at the door like the Tactical unit, the SWAT teams, which are very sexy, guys want to get into the SWAT teams - there's one position, 30 people apply. In Forensics, we have three or four positions, three or four people apply - there isn't people lining up to do our work, so there is just a big difference. (Participant 59S)

Unlike their civilian counterparts, sworn officers may not always be as passionately driven to pursue a career in forensics. FIS discussed that they specifically joined policing to pursue forensics after realizing the limited options available to pursue crime scene investigation outside of being a police officer. Other FIS discussed stumbling upon a job posting for FIUs and chose to apply because they were tired of general patrol or wanted to try something different and challenging. Eight of 18 (44.4%) sworn officers entered their career in policing with a desire to work in FIUs. Seven of 18 (38.8%) sworn officers stumbled upon the opportunity to work in FIUs but had never considered forensics before the position opened. The remaining 3/18 (16.6%) did not discuss their intentions prior to entering FIUs.

Superiors also regard FIUs as a stepping stone into more attractive investigative units. Participant 36S highlights the apathetic nature of management in FIUs:

I do think that something that really impacts the unit is the sworn leadership that rotates in and out, our unit has gone through 10 different Staff Sergeants and Inspectors in the last 10 years because it's not a sought-after position because it's so technical and kind of not sexy. So, managers and Staff Sergeants don't ask for the positions, so, they end up getting people who don't want to be there, people who don't know it, who don't really care about learning it and are looking to leave as soon as possible. (Participant 36S)

4.3.4. 'There is an Attitude in Policing that Everybody Can Do Every Job, which is Especially Not the Case in Forensics!': Tenure Policies

The tenure policies of municipal policing agencies enforce forensic identification as nothing more than a stepping stone for sworn officers. The rationale behind tenure is to mandate the years of service an officer can spend in specialized units, like FIUs, to allow newer officers opportunities in specialty areas. Across Canada, the length of tenure varies significantly in different municipalities. Some agencies have set it to seven years, others are 15 years, and the RCMP has no tenure policy at all. Tenure policies reflect the mentality within policing that officer roles are easily interchangeable across the whole spectrum of departments:

Our internal tenure is 15 years but it's very unlikely that somebody stays for that long. So, we have cyclical training, where we're constantly bringing new people in to backfill because anyone who's ultimately competent in forensics is usually good within the realm of policing. (Participant 56S)

Not only did 35/45 (77.7%) participants see tenure as a waste of training resources but it led to constantly "chasing the rabbit" because you can never attain a consistent competency level:

I think they kind of shoot themselves in the foot with tenure in that they lose all that experience and there's a lot to be said for experience in forensics. When they kick them out, they bring in somebody who literally doesn't know how to work a camera. Right now, we have a lot of newer officers, so we [CFIMs] have a lot more experience forensics wise than they do which makes for a really interesting mix, because you have an officer who's going to major cases, who I'm currently teaching how to use a camera - so it's a very interesting dynamic (Participant 55C)

As participant 55C's sentiment indicates, the implication of tenure unveils power dynamics that exist within FIUs. While CFIMs are restricted in their roles and responsibilities, they are held responsible for training new FIS but are not trusted enough to go to major crimes themselves. Additionally, participants believe tenure results in the least experienced people training the "newbies" who then train the "newbies" which dilutes the level of expertise maintained in FIUs.

Some FIS discussed it taking "five to seven years to really become an efficient and skilled expert" and feel confident in one's practices to then be removed by tenure and

replaced by someone new. After dedicating many years to honing one's expertise, it was extremely discouraging on a personal level for FIS and ultimately affects the quality of work produced:

There's lots of other things that impact our sworn members differently than a civilian around morale and tenure that might impact their output in a unit. I probably talk about tenure every week with the members, it's constantly on their mind, they're constantly upset about it, they think it's unfair and it just breeds resentment that the organization isn't valuing their expertise and it's a waste of money. As soon as my sworn officers hit about year seven their minds kind of disappear because they know that they're going to be tenured out and they start focusing on their next steps and have less investment in the unit. Civilians don't have to worry about that, they get their job until they don't want it anymore. (Participant 36S)

Alternatively, civilians fulfill long term careers in FIUs, are not subjected to tenure mandates and cannot be rewarded promotions, thus by design they have more opportunities to hone their skills and expertise:

For civilians, they don't have to worry about tenure, the longer they work, the more experience they gain and they're going to be better at what they're doing. (Participant 15S/I)

For FIS, the implications of tenure reach far beyond personal, as Participant 09S highlights, tenure policies may influence public experiences with police. Additionally, tenure policies may be detrimental to a judge and/or jury's perception of an expert's credibility:

You need highly skilled people in these expert positions, but management puts a warm body where they can to fill the gaps but for the quality control portion of those expert positions, you have to think further ahead to how that scrutiny is going to show up in court. If this got out to the regular people that you don't have the most qualified personnel in those expert positions, you're just switching constables out of those because you need to fill frontline positions, that's terrible for the people you're trying to help in court or vindicate. (Participant 09S)

Participant 09S emphasizes that the traditional nature of law enforcement involves rotating generalist sworn officers through various assignments based on operational needs, but expert positions require more deliberate selection. Because the general public is not privy to internal policies and procedures within law enforcement, the public may be alarmed to find out that specialized positions are granted based on one's title as

a sworn officer rather than their credentials and skills which could cause major distrust in the efficacy of police.

4.4. Inviting Outsiders In: Us Versus Them Mentality

Law enforcement is plagued by “othering” between sworn officers and those outside their respective police family, leading to challenging dynamics, which this theme will highlight. Despite civilians being “inside” employees of law enforcement organizations, they continue to be perceived and treated as outsiders. Interestingly, both FIS and CFIMs experience “othering” but in differing capacities.

4.4.1. ‘You Only See the Bad That People Are Capable of Doing to Each Other’: Discussions Around CSI Mental Health

Fifteen of 45 (33%) FIS and CFIMs discuss facing mental health challenges as a direct result of their roles within FIUs. Participants classify the role as “very challenging” regardless of one’s job title but the resources and support available for FIS greatly differ from their CFIM counterparts:

I think what happens is the majority of civilians are doing jobs that don't really relate to frontline because you've got all your people who do admin, your fleet people, and your dispatchers, so you get grouped in with them a lot of the time and they're not doing that high stress stuff and you're not really an officer so you don't get grouped in with them either. So, you fall into this weird middle ground where they like to treat you almost like an officer and you attend scenes almost like an officer but when it comes to planning and [mental health] programs and training, you get treated like a civilian. (Participant 55C)

Due to the nature of the work, CSI personnel are plagued with negative calls for service which can take a deep toll on a person over time. Participant 05C attributes the lack of mental health safeguards and support to the systemic culture in policing that is centered around sworn officers:

We see things here things just the same as the guys out there do and they get an annual psych eval, whereas we don't, because we're just the civilians. Even with the (fallen officer) who got killed last year, they (sworn) all got debriefed and psych evals and I got nothing. When (fallen officer) was in the morgue, I was there doing my job while he was there, but being a civilian, it didn't even occur to anybody that it might have been an issue for me at all. I don't think they did intentionally but it's just a mindset for them. (Participant 05C)

Mental well being initiatives for FIS are even mandatory with a solidified strategic plan in place for FIS wanting to address their mental health. Leadership could identify every available support for sworn officers, yet when discussing supports for civilians, they were uncertain about available programs and whether civilians used them. Additionally, it was important for leadership to adequately address FIS mental health:

The problem right now is our two civilians are on this admin team with not really any other cops, so they're on a little bit of an island of their own and they don't like it, so we are trying to figure it out. I am personally struggling with a lot of sworn members who are becoming ill - they're suffering traumatic injuries, they're developing PTSD, they're not taking care of themselves and there's just a lot of harm happening in the unit. Certainly, for my sworn members it's something that I am constantly addressing with them and saying that I'm not going to have a tenure conversation until we can prove to the organization that we can take care of our members because many of them are leaving at the five-year mark, they're going off sick, they're developing drinking addictions because they're not dealing with the trauma that they're seeing. (Participant 36S)

As participant 36S illustrates, there is an evident deeply rooted systemic concern for sworn officers' health with ongoing conversations about how to appropriately address concerns about mental health. However, conversations around civilian mental health remain in their infancy or are non-existent amongst management of FIUs.

4.4.1.1. Toxic Culture in FIUs

Mental health challenges faced by participants were intertwined with the toxic culture of FIUs. Six of eighteen (33%) FIS attribute the toxic culture to agency "politics" but 60% (12/20) CFIMs believe the toxic culture stems from their interactions with FIS and the general attitude in policing towards civilians. Participant 39S acknowledges that while many crime scenes are horrific to witness, a greater challenge for FIS is coping with the political nature of law enforcement:

I have worked 160 Major scenes in forensics, so that's a lot of death and nastiness to work through because a lot of them are atrocious and certain ones affect people differently. For me, I always found it hard testifying in court and giving the details when the family members are present and I'm explaining the different atrocities that happened to their loved ones - it's very, very heart wrenching to do that. I've been able to kind of make it a work thing and keep the human side of things out of it because we have to but when the family members are there and they humanize it again, it really makes it difficult. If you don't have the proper checks and balances in place to help you cope, it can certainly take over

pretty quick. It's hard enough having to deal with all that but unfortunately, I find our unit has a lot of political stuff going on and it's tough dealing with that kind of BS along with dealing with all of the other stuff you see. (Participant 39S)

Though FIS felt their role brought justice to victims of senseless acts, coping through “dissociation” is required to effectively connect all the puzzle pieces of a case together. Participant 15S/I highlights how detrimental a unit’s culture can be:

Many people who work in forensics sometimes see what you shouldn't have to see and that can affect you which is normal and understandable. However, there was many of us in the unit who realized that we could go to any call, we could see any level of horrific trauma and none of it would affect us as much as the toxic culture that existed back in the unit or in the service as a whole. Where people would jokingly say that they'd rather walk into an active shooter scenario then go sit in the office with their peers because of the toxic culture that existed and that's one of the issues in police culture is police culture is very resistant to change. (Participant 15S/I)

FIS stress one primary contributor to the high turnover within FIUs was the toxicity:

There are 24 forensic specialists in our unit - we lost 20 of those people in a two-year period, 20 people came in and left just because of the culture of our unit in particular and the level of casework. We were hemorrhaging members! (Participant 59S)

The demanding workload coupled with toxic culture influences FIS to seek other opportunities within their respective agencies.

‘It’s Really Easy to Get Excluded in This Environment’: Civilian Experiences

Civilians believe the toxic culture results from individual and organizational influences. CFIMs highlight the impact that sworn officer perspectives have on their experiences in FIUs. Sixteen of 20 (80%) CFIMs were the first civilians introduced into their FIUs which was challenging because forensic identification was historically “a police officer’s world.” As a result, CFIMs feel they must work “ten times harder to gain sworn officers trust” as they are outsiders within police culture. Additionally, CFIMs experience considerable resentment from sworn officers, who often perceive civilians as a “threat.” When asked about their interactions with sworn officers, participant 12C/S emphasizes,

I'd go to scenes where I'd run the address, and it says there's guns at the house and the person has domestic charges and I really wouldn't

want to go to this house alone. So, I would get dispatch to send a unit, so the unit will turn up and a couple of the police officers would be grumbling "oh, they should have just left us - why did they bring you civilians, they should just leave it to the sworn officers because then I won't have to waste my time here". So it's sort of ingrained in the air - they would call us mini CSIs and I don't really care, like they can joke about all they want but there's that implication of, "I'm the big CSI guy, you're the little CSI guy", even though I can probably process a scene just as well and just as effective - we both find the same evidence and do the same job, but just because we're civilian, we are thought of as a bit lower down the food chain.

Both CFIMs who have experienced leadership roles note the continuous fact checking from sworn officers merely based on the civilian title. Participant 05C discusses the individual and organizational level perceptions of civilians that translate into how they are treated and the level of respect they are afforded in FIUs:

I think it is a bit of a systemic thing within the service. You even hear within the unit - they won't say it to us directly, but you'll hear people chatting, people we would consider friends and it slips out and they go, "well, it's just a civilian", so you know whatever you think doesn't mean anything. I've been on a course and got told to sit down and keep quiet because I was a civilian and didn't know what I was talking about. At the minute with this new role, I'm getting push back because they're fine when civilians are here as a tech position and we are keeping to ourselves but they don't like us into decision making roles. I'm getting pushback in regards to that, even at this stage and it's for no other reason than I am a civilian. (Participant 05C)

When I started managing them, that was really hard for them because a civilian Lieutenant or Sergeant was huge for them. At the beginning, I had a lot of police officer confronting me just to see if I would be able to make a big decision. So, the first two weeks, I had to fight with them every time and after that then the respect takes place and everything was okay and even the one who were the worst in confronting me, they don't want me to leave. So, when you're in, you're all in, when you're not in, you're all out. (Participant 02C)

Participants 02C and 05C reflect the shifting power dynamics when civilians are afforded positions of authority and the persistent effort required from civilians to demonstrate their credibility. Despite CFIMs being highly educated and qualified for the work in forensic identification, the policing culture continues to differentiate between sworn and civilian roles by "looking down" on civilians. As a result of sworn officers "proving themselves" to one another through their time spent in general patrol, civilians are portrayed as being incapable of understanding the true meaning of working in policing and further reinforces

the “us versus them” mentality within law enforcement. When CFIMs were asked about negative interactions with FIS, participant 28C explains,

Personally, I've encountered that once or twice, where, for example, someone asked me to go do the dishes. The only one I can think of was specifically because I am a civilian was when one of the members asked me to go and clean the dishes that she'd been using to develop – “no, I don't do that” and I told her that quite clearly. Outside of that, there's only been a handful of occasions where I've ever felt disrespected.

Eleven of twenty (55%) CFIMs could identify at least one negative interaction with an FIS colleague. As participant 28C's experiences reflect, FIS undermine and degrade CFIMs by asking them to fulfill housekeeping tasks. Sworn participants suggested that because of initial recruit training, a strong sense of camaraderie and established trust exists among the police family. Hence, the “us versus them” mentality is reinforced through shared early career experiences between sworn officers. Participant 06S highlights the exclusion of civilians on the mere basis that they do not share mutual experiences with sworn officers:

There is a [bond] that is born out of funneling everyone through the same training. That I can phone a regular member in Newfoundland and have a conversation about a file or anything else - I suppose I could do that with a civilian member but there is a unique bond that comes with having had the same early career experiences. (Participant 06S)

Evidently, CFIMs are excluded from the police family on the mere basis of the type of employee they are in law enforcement.

‘I Don't Have Stripes on My Shoulders, So Organizationally, They Don't Know How to Treat Me’: The Importance of Rank for Fitting in to the Police Culture

Another contributing factor of why civilians experience a toxic workplace culture is because of the value attributed to rank within paramilitary organizations. Civilians are not given stripes or ranking titles which ultimately hinders the level of respect they are afforded:

Because of the rank hierarchy and structure that you have in a Police service, if I'm the forensic person out at the crime scene, people need to be listening to the directions that I give but I don't out rank anyone because I'm a Civilian. Technically they out rank me so I should be following their direction but because of the merit of my education and training, I fully knew what needed to happen and had the skills to carry it through but because I am not a ranking Officer, technically, they don't really have to listen to what I say. (Participant 37C)

FIS also emphasize the importance of one's ability to "take control" at a crime scene. FIS acknowledge the difficulty civilians have within law enforcement because sworn officers do not take civilian expertise seriously. Despite recognition that CFIMs are "very experienced and highly educated," FIS discern an inevitable disregard between those within and outside of the rank structure:

I've been in situations where the investigators completely overlooked the civilian, who in that case was the expert, and came straight to me (sworn member) even though I kept telling them the civilian here is the expert in this matter. (Participant 35S)

By reinforcing existing power dynamics between those with rank and those without, participant 35S highlights how CFIMs are forced to bite their tongues on the correct policies and procedures to respect the direction from a ranking individual. As participant 38C illustrates, even though CFIM's knowledge and understanding of the science far exceeds their sworn managers, there is complete fear and apprehension to oppose suggestions from superiors:

My Sergeant right now is a lovely supervisor, a wonderful police officer and all around a really good person but he does not come from any science background. There are times where – oh god, this sounds awful – it was the same motor vehicle collision I was telling you about, I went to that autopsy, and I was training the new Detective Constable on how to go to autopsies and properly document the bodies. So, prior to attending, I asked my Sergeant if I should grab any samples for comparison and he told me no, so I didn't and then it comes back that we need to compare those samples to the vehicle that we have found, to pull the case together. I guess it was a misunderstanding, but I felt like the job was compromised because even though I had brought it to his attention, he said no as my superior so I didn't do it and maybe I should have pushed harder to explain what the relevance of getting that sample was so that he understood. (Participant 38C)

Because civilians may not be from paramilitary backgrounds when they enter FIUs, CFIMs highlight their difficulties in understanding "the respect that comes from rank". Civilians emphasize that their years of experience in FIUs far exceed sworn officers but because they fall out of the ranking hierarchy, they are excluded from the brother and sisterhood because of their lack of stripes:

In Ident, we have constables, corporals, and sergeants - I'm kind of floating around on the side somewhere. I've been in situations where I was the most experienced person in the room by multiple years and still being treated as bottom of the totem pole - with respect, but still not recognized as part of the organizational hierarchy. Despite being told by

the actual Sergeant, "I don't want you to go travel same time as me, because I need you here in case there are any issues". So, I'm essentially being assigned the responsibility, but not the pay that comes with it, not the organizational recognition that comes with it. Especially in a hierarchical paramilitary organization, the fact that I don't have a distinct rank has caused some issues. (Participant 28C)

FIS reinforce the ranking hierarchy by claiming civilians do not have the same capabilities as sworn officers and lack the necessary stamina required to successfully get a case through court:

The ability to shepherd a file through seven years in court, and four court appearances and all day long until you're so tired you can't feel your feet because you're standing up - honestly, the way that you demonstrate that you have the capacity for that is to be a regular member. I'm trying very hard not to be dismissive, but the kind of intestinal fortitude that is required for something like that is what you demonstrate by being a regular member. (Participant 06S)

Participant 06S reinforces that the only way to be successful in FIUs is to have previous experience as a sworn officer and highlights the merit attributed to rank within policing.

'The Title Relegates Us to a Secondary Role & Fails to Reflect the Magnitude of Our Work': CFIMs are More Than Assistants

Policing agencies reinforce that civilians do not fit nicely into the hierarchy through the titles assigned to their roles. Specifically, civilians working within the RCMP, believe their title does not accurately reflect their qualifications and responsibilities. In the RCMP, sworn officers who complete training are titled a "Forensic Identification Specialist." Contrarily, civilians complete the same training and proficiency testing and are referred to as "Certified Forensic Identification Assistant":

I don't want to be in court and my job title is Forensic Identification Assistant, because what is the court going to think about an assistant - not to degrade anything about other assistants but I just don't think it accurately reflects what I do. I don't assist with anything! I lead it - when I go to court and it's my file, I lead the file! (Participant 24C)

Out of respect for the civilian participants of this research, I classified all civilians as CFIMs to avoid perpetuating these power dynamics in the results of this research.

During the interviews, sworn participants often referred to civilians as assistants, helpers, or support, reflecting the systemic belief that civilians cannot fulfill the role of a

forensics member on their own. Participant 28C discusses working alongside an FIS on a case and being openly referred to as their “hired help”:

Sworn Ident. members have said, “oh, yes, this is so and so, they’re my assistant”. No, we're trained for this, we're doing the same job. Yes, on this particular one, we might be helping you and we might be the secondary investigator, but we're not your assistant. Just the word assistant sounds like a very secondary role – it sounds like “oh, I'm not here to do the job, I'm just here to help you do the job” - I do not think it accurately depicts the work that we do. (Participant 28C)

The titles given to FIS and CFIMs create a two-tiered system that reinforces systemic distinctions between the two groups. Despite CFIMs expressing stressing their disdain for their role title to management, management continually refuses to change the title. Management’s refusal reflects two realities within FIUs: first, that civilian voices may not be heard nor valued within law enforcement agencies. Second, it is important for sworn officers to be distinguished from their civilian counterparts.

In addition to affecting the personal experiences of civilians, their job title has broader implications for its perception in a court of law. Court actors like a judge and jury may not understand the title and thus, it may impede the credibility of a civilian’s testimony:

Going to court, I have been asked by multiple lawyers why my title is Assistant and that it might reflect poorly because I'm being introduced as a Certified Forensic Identification Assistant and there's potential that a defense lawyer might look at that and say, “why are they sending the Assistant? Why didn't they send the Specialist in to do this investigation”, so it can actually weaken my testimony in court. The argument management makes is, “your testimony should stand alone, it should only matter what you say, it doesn't really matter what your job title is” but I don't want to chance that a jury member hears this and decides to be prejudiced against me because I have this one word in my title - it just doesn't make any sense to risk that. (Participant 32C)

Despite receiving the same training and obtaining the same credentials, if not more than their FIS counterparts, civilians believe that the job title exemplifies a culture within policing that must differentiate between sworn officers and others involved in the execution of police functions.

4.4.2. Organizational Limits on the Civilian Role

Civilian participants also highlight systemically enforced limitations on their role such as legislative documents, like Major Case Management Manuals outlining the procedures for major investigations and policies of who is responsible for certain tasks during investigations. Additionally, the Criminal Code outlines who is authorized to exercise search and seizure powers at a crime scene:

The law itself favors sworn members doing forensics versus civilians. (Participant 15S/I)

Under Canadian law, police officers have a lot of special authorities that civilians don't have. In things like search warrants, the actual document in the Criminal Code says that whoever swearing it has to be a police officer and federal statutes specifically direct police officers to go to certain places at certain times and search for certain things. If you want to have a civilian involved, you must tender a separate document requesting their assistance - I could have 300 police officers who will never be named in the warrant come in and do the search but if you have a civilian, they must be named. Also, unless you're a sworn constable or a police officer, you can't handle guns, you're committing a criminal offense, you can't handle those drugs because you're now committing offense for possession under the Controlled Drugs and Substances Act but if you're a police officer, you're empowered under law to handle those things because they're evidentiary. (Participant 14S/I)

Federal and provincial policy reinforce systemically embedded ideologies that sworn officers must fulfill policing functions. Additionally, 23/45 (51.1%) participants believe legislative constraints are one of the primary factors impeding civilianization from evolving within Canada. Another reason civilians are not being used to their full utility is because of the lack of formal training opportunities afforded to CFIMs:

There's Forensic Identification Technicians that are out there doing the job and the reason they are not going to the major crime scene is because they're being held back, they're not being trained as certified full forensic people that can go out and do those scenes. So, they are unable to do comparison work because they haven't been granted approval to do the forensic ident course from either police institution. (Participant 29S/I)

Seventeen of 45 (37.7%) participants believe civilians are restricted in their responsibilities because they are not granted permission to attend formal training. The decision not to send civilians for police college training may be because CFIMs in FIUs are in their infancy or it may be a control tactic set out by agencies to ensure sworn

officers will never completely lose their opportunities within FIUs. The lack of formal training reinforces that systemically, opportunities are reserved for sworn officers.

Thirty of 45 (66.6%) participants believe policing agencies limit civilian roles because of the safety risks associated with crime scenes and the danger this poses to unarmed civilians. Participants believe the public is incapable of distinguishing between civilians and sworn officers; thus, sending CFIMs to major crime scenes to represent the police without proper use of force options is deemed an “unacceptable risk” and too much liability. Amongst participants, there was an evident divide in perspectives regarding the necessity of use of force options when processing crime scenes:

The first thing you'll hear people talk about is, “well, if you go out as a civilian, you're not armed, and then there's no lethal oversight to it at all” - which makes me laugh a little bit, like really, lethal oversight to a break and enter in (name of community)? We did this in (international location), all as unarmed civilians when there was a terrorist threat, they could have put a mortar through the car, and we were fine. So, it does make me giggle a little bit that way, “I don't know if it's safe enough for you to go out”. (Participant 05C)

4.4.2.1. *‘It’s Overkill to Have a Gun on Your Hip While Processing a Crime Scene’: Are the skills of a Police Officer Necessary for CSI?*

The primary reason law enforcement organizations hold on to forensic roles in Canada is because of the safety risks associated with crime scene investigation. One of the primary reasons CFIMs are not being used to their full utility in Canada is safety concerns. In fact, 30/45 (66.6%) participants in this study believe safety risks impede civilian roles and responsibilities. All participants were asked whether they believed the skills of a police officer were necessary for crime scene work. Specifically, the question was centered around protective gear and training in subject control tactics. While 30/45 (66.6%) participants highlighted the importance of investigative knowledge and experience that comes with being a police officer, only 3/45 participants explicitly identify a gun and badge as necessary while processing a crime scene:

I think our biggest stumbling block is getting over the fact that we can have a civilian do a sworn members role. Nothing says that it takes a police officer to process a forensic scene, you don't have to carry a badge and a gun to be able to process something forensically. (Participant 62S)

That's the one I struggled with all week was trying to figure out like what value do sworn officers bring over civilians? and I don't know, I

struggled - certainly there's the officer safety perspective but that has nothing to do with crime scene work. And I'm cognizant of the fact that sometimes we get officers in crime scenes that have only been on the frontline for three years. So, how deep is their knowledge anyways? So, I'm mindful of that, too and I don't think it's a make-or-break thing. (Participant 36S)

Some sworn participants express that it is a “lame excuse” to argue civilians cannot process major crimes because a perpetrator may return. FIS attributed this to being a lame excuse as scene security is usually present at every type of crime scene and their sole purpose is to maintain continuity, remain alert and guard the scene to ensure nothing is tampered with. CFIMs reaffirm that it may be impossible for FIS to wear multiple hats while processing a crime scene:

I have talked to members who have been in forensics identification units for 25, 26 years, and they tell me straight up, they don't go into unsecured scenes anyway, or they don't go onto the scenes without backup because if you're looking down the viewfinder of your camera, you aren't paying attention to what's coming up behind you anyways. Are you really watching your back when you're concentrating on patterning the fingerprint in front of you? (Participant 28C)

A lot of people I work with take off their gun belt and leave it in the truck while we're working inside. (Participant 44C)

Even if FIS fulfill dual roles as protective and forensic officers, it would be nearly impossible to complete the responsibilities of a forensics member, such as photographing evidence, while also being preoccupied with ensuring the surrounding environment is safe. As participant 28C and 44C suggest, despite law enforcement claiming to hold on to forensics for the safety aspect, even FIS do not attend scenes independently as they too need protection as they may not have time to react to a suspect returning if they are busy forensically. Additionally, participant 15S/I indicates there may be an ego piece associated with officers not wanting to accept that these roles can be fulfilled by “outsiders”:

It gets to be a point where they think of it as an us versus them, where civilians couldn't do this job, I'm sworn! Police training creates this false ego that if you're sworn then you're something special, more so than someone who is not sworn because they haven't been to the training - well, that's great but what does your skills and firearms training provide when it comes to processing a crime scene? It doesn't! I don't care that you can shoot a gun - that doesn't mean anything here and it's a false ego - take the uniform off, what's the difference between you and a

civilian? You carry a badge? That's a 30-cent piece of tin that you think is a difference. (Participant 15S/I)

Additionally, FIS discuss the uniform being solely symbolic and representative of their role as police officers but expressed that if they were asked to switch over to the civilian side, they absolutely would. As participant 59S reiterates:

If they came to me tomorrow and said, "we are getting rid of sworns and only having civilians", I would switch over to the civilian side because the uniform is just a part of the process.

FIS believe that depending on the type of crime scene they are attending the uniform can either help or intimidate. Thus, implying that the uniform is not advantageous for one's ability to collect forensic evidence but rather it is just a persona or identity piece. For CFIMs, uniform attire may pose risks to one's safety as civilian attire is similar to uniforms worn by sworn officers in forensics:

Another danger though, that I see for the forensic civilian is that they're putting them in a modified uniform. So usually, it's the same tac pants that cops wear and but a golf shirt that says forensics on the back, no use of force options, so, no gun, baton, pepper spray, taser, nothing like that. Well, the public is not going to know the difference - if they see someone in a uniform that says forensics, it's game on. (Participant 25S)

As participant 25S highlights, the public may have difficulty discerning differences in police personnel uniforms which may subject CFIMs to increased risk that they did not sign up for. Participant 27C emphasizes that they applied for FIUs to specialize in forensics and if they wanted to carry a gun and fulfill functions of sworn officers, they would have applied to be a sworn officer:

The great thing about being a civilian is ignorance is bliss. I don't want the responsibility of carrying extra equipment or having to deal with potentially arresting somebody. As a civilian, I just go do my job and in general, I'm left alone like yes, we have uniforms on that say forensics on the back, but I've not been mistaken for a police officer because I don't necessarily look like one. Yeah, I'm in uniform but I have distinctions indicating I'm not a police officer and if the public doesn't know, they don't know. Whereas when you're in uniform there's a higher expectation of you and a higher expectation of your duty. I think for uniformed officers they have that extra bit of professionalism, not that we're not professional, but there's that higher expectation when you're a uniformed officer versus a civilian, for sure. (Participant 27C)

A key takeaway from participant 59S, 25S and 27C is the emphasis placed on the value of a uniform within law enforcement, despite CFIMs being in a position that does not require such attention from the public.

Summary

Together, the findings discussed in this chapter suggest that distinct perspectives prevail among FIS and CFIMs relating to the necessity of education and the value of training within FIUs. Furthermore, the values inherent to the police culture contribute to the experiences illustrated by both sworn and civilian CSI personnel. While CFIMs feel criticized, resented, and isolated by their peers, organizational policies tend to regard sworn officers as transferable resources for every department of law enforcement agencies to utilize. As such, sworn personnel, such as FIS, are not given the opportunity to hone their skills of expertise in specialized units and are forced to constantly chase career development opportunities or accept lateral movement within the agency. The dynamics between CFIMs and FIS highlight the consequences of the “us versus them” ideology that is deeply embedded throughout police subcultures.

Chapter 5.

Discussion

Civilianization in a Canadian context is an understudied phenomenon. A handful of studies have addressed the fiscal benefits of civilianization. Recent Canadian studies have examined specific agency efforts to civilianize and compiled general knowledge surrounding the benefits and challenges associated with civilianization. No study, however, has qualitatively examined how civilianization impacts specialty police units, like forensic identification. The aim of this study was to explore the benefits and challenges of civilianization in Canadian forensic identification units. Qualitative interviews with crime scene investigators, both civilian and sworn, as well as forensic instructors showed that the introduction of civilians has resulted in imbalanced power dynamics. Understanding the in-depth experiences of personnel within these units may help improve the understanding of the cultural barriers that impede civilianization from being successfully integrated into law enforcement.

In turn, I aimed to explore the perspectives of forensic personnel working in forensic identification units to gain an understanding of the current model of crime scene investigation within Canadian law enforcement. In the following discussion, I outline the findings of the current study and its relevance. First, I summarize my main findings and position them relative to existing literature. Second, I discuss how the findings of this research contribute to the literature. Finally, I discuss the implications of the findings and end by concluding the thesis.

Using semi-structured interviews with crime scene investigation personnel, I presented a thematic analysis of personnell's perspectives on civilianizing FIUs. The following research questions guided the study: (a) what is the relationship between policing and crime scene investigation in a Canadian context; (b) what skills and qualifications are necessary in crime scene investigation personnel; (c) how is the current model functioning?

Due to the little information available about the composition of forensic identification units in Canada, it was important to explore the roles of personnel who comprise these units. Findings illustrated that mixed units, managed by sworn officers, is

the predominant model followed in Canadian FIUs (research question #1). Findings highlight that the use of civilians in FIUs has yet to reach its full utility and roles fulfilled by civilians are not consistent across the country. For instance, participants indicate that traditionally, sworn officers fulfilled specialized roles and as a result, it would be an extreme challenge culturally to completely sever the relationship between sworn officers and crime scene investigation. Hence, efforts to introduce civilians have been slow to progress and often met with disdain. This supports previous research that highlighted the difficulty associated with integrating civilians into police organizations in ways that make full use of their skills and knowledge (Alderden & Skogan, 2014). In my study, participants view systemically embedded ideologies about the value of sworn officers as the primary reason that impedes civilianization. These ideologies produce a culture that favours and grants greater opportunities to sworn officers. Participants felt the perception that crime scene investigation is best performed by persons with police experience and training further problematized the systemic divide. Consistent with Alderden & Skogan (2014) these dynamics contribute to civilians being marginal members of their own organizations.

I also explore participants' views on the training and education they received as personnel in FIUs. Findings demonstrate that while education was valued by both sworn and civilian participants, the reason education was appreciated was for distinct reasons (research question #2). Additionally, findings highlight that sworn officers viewed the training at the police colleges with high regard, whereas civilians regarded the training as simplistic in nature. Distinctions in the value placed on training highlights that sworn officers value pedagogical methods geared towards police and taught by police which further reinforces the concept of police driven science.

Finally, I explore how participants conceptualize the benefits and challenges of civilianizing FIUs. Findings illustrate that while civilians are an extremely advantageous asset to policing, the challenges they face are systemically embedded into the organizational culture of policing and the hierarchical structure (research question #3). Previous research has highlighted how integrating civilians "raises concerns with institutional survival based on traditional understandings, cultural norms and the beliefs pertaining to 'what policing is all about'" (Kiedrowski et al., 2019, p. 205).

The findings of this study make four significant contributions to the existing literature. These contributions and their implications are discussed in greater detail below: 1) Power Dynamics through Roles, 2) The Value of Training and Education for CSI, 3) a Passion fueled Career or a Point for Promotion, and 4) Outsiders in Their Own Organizations.

5.1. Power Dynamics Through Roles

In this section, I discuss power dynamics through roles relative to the existing literature. This section has been divided up by sworn, management and civilian roles to emphasize how authority is distributed within FIUs and the impact of power dynamics on the experiences of FIU personnel.

5.1.1. Sworn

A main finding of this study was the significance sworn participants place on having previous investigative experience and knowledge of the law prior to entering FIUs. Sworn participants believe their time spent on general patrol was essential to the development of their knowledge relating to the wider investigation process. Similarly, Wilson-Kovacks (2014) emphasized that sworn officers have a unique understanding of key procedures necessary for a successful investigation. While it may be true that general patrol is effective for gaining investigative exposure, these skills may not always be transferable to the work of a crime scene investigator. As previous scholars have noted, some specialist duties within policing require patrol experience for effective performance, but the skills learned while on patrol do not always translate to the work in specialty units (Crank, 1989; Griffiths et al., 2006; MacDonald & Martin, 1986). Contradictory to empirical findings in the existing literature, sworn participants in this study emphasize that being a police officer first was fundamental for their skills as a crime scene investigator (Illes et al., 2019; “President’s Council”, 2016). In fact, when Illes et al. (2019) tested the reasoning skills of Canadian crime scene experts, they found the employment status, being police or civilian, was not correlated to one’s reasoning ability as a crime scene investigator. By holding on to the belief that investigative experience is vital to crime scene work, my sample demonstrates the reluctance of the

police culture to let go of traditional mentalities that roles in law enforcement should be reserved for only sworn officers.

Sworn participants emphasize that though their current role in forensic identification required specialized skills, they were initially trained as generalist police officers. Similar to the findings of other scholars, being initially trained as a police officer was central to sworn officers' identities as they felt equipped for any role within law enforcement and able to respond to a variety of situations (Huey & Ricciardelli, 2015; Leuprecht, 2019; MacDonald & Martin, 1986). Being a sworn officer first was construed as vitally important to participants' work in forensic identification as their knowledge of search and seizure parameters was transferable to collecting evidence at crime scenes. Likewise, other studies have suggested personnel working in forensic science positions must understand rules of evidence, court and police procedures to fully undertake their role within the proper legal context (Kelty et al., 2017).

Providing testimony in court is an important facet of FIS roles within FIUs. The ever-changing expectations of forensic experts in court was reported as being challenging to their role as they felt strongly obliged to contribute to case law in a positive manner. As scholars have previously noted, individual case law decisions are substantially impacted by the practices of law enforcement personnel (Cohen et al., 2021; Cunliffe & Edmond, 2021). Thus, participants acknowledge their responsibility in the trajectory of caselaw as their testimony could change the course and direction of policing practices relating to criminal investigations. Despite the threshold of expectations continually increasing in court, participants simultaneously saw this as an opportunity to improve the validity of their own practices as crime scene investigators. These findings align with previous research that links the importance of the courts in shaping how law enforcement work is conducted and how police must respond to new obligations, and expectations as set out by the courts (Cohen et al., 2021).

5.1.2. Management

The next key finding in the study was participant concerns relating to the lack of forensic specific knowledge amongst FIU management. Despite responsibility for resource allocation and major decision-making within their respective units, participants indicated that management does not attend the police colleges for forensic training and

as a result, struggle to comprehend the work conducted by their employees. Likewise, a study conducted by Mousseau et al. (2019) examined the level of knowledge existing among managers of crime scene units in Quebec and found that leadership holds a narrow view of forensic science which underlines the complexity faced by crime scene management when exercising their duties. In this study, FIS construct management with no forensic awareness as being potentially dangerous to the validity of the work being done within these units. As participants explain, once the analysis stage has been completed on a piece of evidence, it must go to a supervisor who then needs to re-analyze that evidence and approve the final identification. Similar to previous research, when management lacks an understanding of daily operations, they rely on employees' estimations of workloads and resources required which results in inadequate support from those in charge (Belur & Johnson, 2018; Harkin et al., 2018).

Another key discussion point for FIS was the need to explain to management why specific training courses were necessary to remain competent forensic experts. Harkin & Whelan (2018) also found that personnel working within cyber crime units had an extremely difficult time communicating with management as they lacked the necessary technical experience required in specialized units. Participants construed managements' failure to understand the needs of the unit as being the result of having no direct hand in case work. These findings are supported by Harkin & Whelan (2018) who emphasize that management's lack of knowledge creates several difficulties in understanding and communicating the needs of specialty police units.

5.1.3. Civilians

The findings of the current study also indicate little attention was put forth as to how civilianization would transpire in units like forensic identification. This finding aligns with previous literature as Rice (2020) found the introduction of civilian support staff was coupled with confusion over how they fit, both practically and culturally, into investigative units. Participants construct the lack of thoughtfulness around integrating civilians as being detrimental to the evolution of their roles as well as their morale. This is an important finding as it suggests little support for civilianization within the organizational infrastructure. Likewise, other studies have found that the evolving nature of policing to include non-sworn roles have created substantial challenges for police services (Kiedrowski et al., 2019; Rice, 2020).

The lack of systemic support to integrate civilians is further supported by the present study's findings that civilians are not being granted formal training opportunities at the police colleges. For example, out of the 20 civilians who participated in this research, 11 have not received forensic identification training from the police colleges (55% of civilians). The overwhelming majority of those who have not received training are from municipal policing services. Contrarily, out of 18 sworn participants, only 3 had not received training and this was because two are managers and the other one had just joined the unit (16%). These findings are supported by previous scholar's work that noted civilians receive much less training than their sworn counterparts (Schwartz et al. (1975) as cited in Alderden & Skogan, 2014; Rice, 2020). Nearly 50 years after Schwartz et al.'s research in 1975, little progress has been made towards ensuring civilians are cohesively integrated members of police organizations through training opportunities. Similar to Harkin & Whelan (2022), participants in this study emphasized that equity issues emerge when allocating training resources in specialty units of law enforcement. Additionally, a lack of formal police college training was the primary justification given by senior leadership interviewed for this study as to why civilian roles could not evolve. This finding is unique to this study as it has yet to be discussed by other scholars, but it is essential because it suggests that unless one learns how to conduct police driven science, they are unable to adequately perform the roles and responsibility of a CSI.

The requirements at the time of hire were another point of discussion for participants. Participants believe the requirements of civilian qualifications is substantially greater than their sworn counterparts who needed no previous forensic training or post-secondary education at all. Distinctions in hiring requirements are well documented throughout existing literature and emphasizes that while civilians are highly skilled and educated in specialized areas, sworn officers lack such credentials (Alderden & Skogan, 2014; J. Robertson, 2012; Toronto Police Services Board, 2013; Whelan & Harkin, 2021). This finding is quite alarming as civilians continue to fulfill limited roles in their agencies despite being highly educated while sworn who are not educated forensically, hold substantial responsibilities within FIUs. However, my study contributes to this body of research by highlighting the inequitable role distinctions that exist within units comprised of mixed personnel.

5.2. Training & Education

A main finding of my study was the merit sworn and civilian participants assigned to education and training. Sworn participants in this sample believe the Forensic Identification training at the police colleges was of the utmost importance when learning the expectations of law enforcement personnel in the context of crime scene examination. Further emphasis was placed on the police colleges teaching forensic science in a way that directly aligns with how police make use of scientific principles. Consistent with other scholars, this finding implies that police driven science differs from pure scientific endeavours in that the former is an instrument of law enforcement to secure a conviction through individualization while pure science does not require application for validation and is centered around hypothesis testing and scientific methods (Mnookin et al., 2011; Saks & Faigman, 2008). As Saks & Faigman (2008) reiterate, forensic identification sciences were created solely to become an integrated instrument for law enforcement to meet the needs of the criminal justice system as conventional science is not centered around individualization.

When further probed as to why the Police College was more effective than formal education methods, FIS explain that it is taught by those who have worked as police in forensic identification and have years of experience. Previous literature has also emphasized that police college courses are taught by police officers rather than discipline experts as police officers will know better what other police officers will need (Jaschke & Neidhardt, 2007; Oliva & Compton, 2010). Additionally, while FIS place emphasis on the importance of experience, the objectivity of scientific methods should not be improved by years of experience and science should not be based on experience. Furthermore, years of experience likely increases one's subjectivity and introduces the possibility for bias. For those civilians in the sample that attended the police colleges, many describe it as an eight-week break for them as they had learned these concepts in first year university. Previous literature has emphasized the fundamental distinctions between police and academic communities and what they regard as knowledge (Canter, 2004; Wood et al., 2018). It may be argued that civilians do not find the police college training useful and therefore it is unnecessary to include them in such training. However, given that sworn officers do not give credit to university education, unless from a police-

based program, sending civilians to police college training is essential if there is any chance of having civilians accepted by sworn officers into police culture.

It was common for sworn participants to caveat statements relating to educational value with sentiments like, “you can have all the degrees in the world but that doesn’t replace experience in policing”. The emphasis placed on years of experience is contradicted by Mnookin et al. who asserts that though experience is a legitimate basis for knowledge, to make sweeping claims of individualization based on experience alone is deeply problematic. Likewise to previous scholars, these findings highlight how subjectively, years of experience in policing can provide deep and sincere confidence about the work they do in their role but experience alone will not enhance scientific abilities (Mnookin et al., 2011; Saks & Faigman, 2008). In many instances, the educational qualifications and skills civilians brought forward were discredited on the mere basis that they did not have the policing experience to come with it. Research conducted by De Paoli et al. (2021) also found that though civilian expertise was valuable, it was necessary that they possessed relevant policing skills. One participant from the De Paoli et al. (2021) study stated,

I’d rather have a person with a master’s degree in computer science and teach them the basics of police work ... because you can’t teach things like ‘big data analysis’ in a two-week course. But it is important to understand that policing is a skill: how do you interview someone, how do you collect evidence, it is like a trade, to have this police mind-set. (p.1440)

This finding is echoed in sentiments of participants from my study and suggests that while the concepts learned in university are not easily grasped in short training courses, skills that come from police experience can be taught and learned over the course of one’s career. As one participant in my study emphasized, it’s so much easier for a scientist to be trained to do investigations than for a police officer or an investigator to do the science.

For sworn participants, the primary motivation for enrolling in post-secondary education was two-fold: they saw it as a mechanism to increase their promotional chances and it adds a credible line on their curriculum vitae in court. Police perceiving education as a means for promotion has been well documented by previous scholars (Buckley, 1995; Buckley et al., 1993; Whetstone, 2000). However, to my knowledge, no previous study has identified education in the context of sworn officers in FIUs and the

potential role it may play in promoting their credibility in court. This finding is important as it suggests police perceive education as an instrument in prosecution to secure a conviction and to further secure their place within the hierarchy.

Fifteen of 18 (83.3%) sworn participants in this study received post-secondary education and 7/18 (38.8%) obtained post-secondary after entering their career in forensics. Buckley et al. (1993) also found university education was obtained after police officers entered their career in policing. For sworn participants, it was not until they started working in forensic identification, that they realized the importance of pursuing higher education. Out of the 15 sworn participants interviewed who had degrees, 7 have degrees from Laurentian University that they received while actively working as Forensic Identification Officers (FIOs) in crime scenes. The Forensic Identification program at Laurentian is exclusive to law enforcement personnel in crime scene investigation and is taught by former police officers (Laurentian University, 2023). This finding is consistent with previous literature that indicates there is a culture in policing that believes only police know how to educate police and as a result, traditional educational approaches are deemed inappropriate for police personnel (Basham, 2020; Oliva & Compton, 2010). Overall, this finding suggests that sworn officers continue honouring a closed subculture that influences why, how and where they become educated. In addition, this closed subculture suggests the presence of an old boys' network within Canadian forensic identification training which perpetuates complacency in the practices and procedures employed. These findings are important as they suggest sworn officers do value education but prefer different instructional methods than their civilian counterparts.

Though the majority of sworn participants value education for one reason or another, two FIS believe post-secondary education is detrimental to one's abilities in FIUs as their knowledge from university interfered with accepting the way police conduct forensic work. Furthermore, the same participants express frustration with civilians who are educated as they often provided suggestions that are extremely out of the box in the practical context. This finding extends the work of other scholars as it implies that scientists are always seeking to extend their perspectives while police are content with knowledge directly applicable to managing practical tasks (Walter, 2001 as cited in Jaschke & Neidhardt, 2007).

Civilian participants who completed Bachelor of Science degrees believe it was vital for their understanding of the scientific method and provided a holistic foundation for their work in crime scenes. This finding is supported by previous research that indicates top performing crime scene examiners had sound scientific knowledge to underpin their work (Kelty et al., 2017). Obtaining university education is constructed as fundamental to one's critical thinking skills, though they felt a disconnect between the content taught and the practicalities of scene work. Other scholars have also suggested university education is advantageous for providing generic skills, but the learning environment is simplistic in nature, while crime scenes are ill-structured environments with complex and multifaceted dynamics (Illes et al., 2019; Kelty et al., 2017). Consistent with previous literature, participants in this study believe academia offered them flexibility in their orientation and an ability to apply generalized skill sets to a variety of tasks (Jaschke & Neidhardt, 2007).

According to civilian participant views, obtaining university education was an important determinant in one's inclination for future learning. These findings align with previous studies which suggest formal education acts as a catalyst into life long learning and one's desire to engage in continuous training within the workplace (Kelty et al., 2017). Civilian participants were keener to engage in continuous learning as they often referred to reading newly published journal articles in the field and their attendance at educational conferences to ensure their practices aligned with newly emerging techniques discovered by research. These findings are consistent with other scholars findings which found top performing crime scene examiners are constantly reading many books or journal articles and emphasized the importance of keeping their knowledge up to date (Kelty et al., 2011).

Participants discuss that learning by doing brought their skills and knowledge of crime scene processing to life. This finding is consistent with previous research which found that on the job exposure provides learners with an opportunity to practice forensic science skills firsthand (Belur & Johnson, 2018; Howes, 2017; Huisjes et al., 2018; Kelty et al., 2017; Oliva & Compton, 2010). However, in the context of death investigation, this finding is somewhat concerning as it suggests personnel are more comfortable experimenting with error while working on real casework and are learning from their mistakes as they continue processing cases. Another key facet related to learning for participants was mentorship. Participants construe their time spent with more senior

members within the unit as essential to developing solid skills when processing crime scenes. Mentorship coupled with formal training at the police college was deemed essential for learning the application of crime scene techniques. These findings are supported by the work of Belur & Johnson (2018) who found that good analytic skills evolve when you are given the opportunity to be taught by someone more experienced on exactly how to apply certain skills on the job.

The timing of when participants received police college training is emphasized. Participants discuss processing numerous crime scenes prior to being enrolled in the formal training program relating to forensic identification. Belur & Johnson (2018) examined how crime analysis was integrated in to policing and found that though many analysts had been in the unit long term, they had yet to receive training. In fact, one participant in their study explained, "I've been in the department for a year and a half, and next month, I will be getting my analyst training to actually tell me how to do the job I've been doing for a year and a half" (p.781). These findings echo sentiments of participants experiences found within my study. This is a highly concerning finding as it suggests they have processed numerous crime scenes involving real-life cases with real-life implications for mistakes and errors.

5.3. A Career or a Stepping Stone

The next key finding is related to recruiting and retaining sworn officers in Forensic Identification Units. Sworn participants indicate that other specialty units within policing were much more attractive than forensic identification as it's a very technical role that involves substantially greater responsibility. Similar to Harkin et al. (2018), the findings from this study suggest that the skills required to be successful in forensic identification are distinct from those required in other specialty units. Participants further stated that very few sworn officers enter a policing career with the desire to work in forensic identification. Consistent with Harkin et al. (2018) these findings imply that generally skilled officers may have difficulty acquiring competence in forensics and the expertise gained may be less transferable to other departments within law enforcement. It was emphasized that officers were not lining up to work in forensic identification when compared with roles that required a high degree of mental and physical toughness, like tactical response units. Previous literature highlights the strong distinctions between various policing roles, in terms of status as well as officers desires to fulfill such roles

(Brough et al., 2016; De Paoli et al., 2021). In fact, in one interview with the Inspector of an FIU, they stated that their specific agency had to decrease the number of years spent on general patrol requirement to accommodate this lack of interest. This suggests that requirements at the time of hire are becoming diluted because of a lack of interest from sworn officers in entering units like forensic identification, which from an expertise standpoint, is highly concerning.

The reasons sworn officers gave for their initial applications to work in forensic identification were surprising. For some, it was a piqued curiosity from watching crime scene investigation television shows, while others acknowledged their distaste for general patrol and the desire to get out of shift work. This finding is unique to this study and underlines a lack of preliminary passion and desire from sworn officers working in forensic identification units. Sworn officers' desire for career advancement was also a key discussion point throughout the interviews. For sworn participants, opportunities for service in specialty units, like forensic identification, were viewed as a critical stepping stone to move up the organizational hierarchy. Previous literature has highlighted that while most occupations value promotion, this is especially true within the culture of policing (Buckley et al., 1993; Campeau, 2019). The constant pursuit of promotional opportunities leads to extremely high turnover rates which results in the training investment and expertise being lost once they leave the unit. As previous scholars have noted, when officers move away from crime scene work, the training investment may not be entirely lost as the officer remains an asset to the general agency, but given that CSIs rely on tacit knowledge and experience, the accumulative expertise is jeopardized (Alderden & Skogan, 2014; Belur & Johnson, 2018; Wilson-Kovacs, 2014).

One contentious issue discussed throughout the interviews was tenure policies. This finding was exclusive to sworn officers who are heavily bound by tenure policies that dictate the maximum years of service they can spend in specialty units. For those who were passionate about their work as Forensic Identification Officers (FIOs), tenure policies were seen as detrimental to their ability to truly hone their expertise and were a primary contributor to the revolving door existing in forensics. Consistent with previous literature, sworn participants emphasize that it takes at least five years to gain expertise in crime scene examination and it is not until this point that they feel thoroughly confident in their abilities (Kelty & Gordon, 2015). Similarly to cyber-squads, forensic identification units suffer a persistent loss of sworn staff who leave for opportunities elsewhere or are

forced to leave as an implication of policy (Harkin et al., 2018; Somers, 2023; Whelan & Harkin, 2021). Though this research could not empirically test whether these assertions are true or not, one can presume that it would take civilians much less time to gain expertise in crime scene examination, given they have already completed a four-year degree, or more, in a related field prior to being hired.

Together, these factors contribute to a revolving door of expertise within FIUs. Scholars have documented the high attrition rates within crime scene investigation units due to a variety of reasons (Kelty et al., 2017; Kelty & Gordon, 2012). Consistent with previous scholars, staff shortages have a severe impact on morale within their respective units (Harkin et al., 2018; Harkin & Whelan, 2022). As one participant put it, FIUs are “hemorrhaging members”, and it puts serious pressure on members who are still there to carry the weight of those who have moved on. This finding demonstrates that despite the difficulty associated with becoming a competent expert in units like forensic identification, the high turnover culture in policing remains consistent in specialty units.

One unique aspect of civilianization relates to the longevity civilian employees offer. A career-long commitment from civilians is essential in a unit like forensic identification as there is a culture in policing that believes police officers should be moved from one function to another every few years (Alderden & Skogan, 2014; MacDonald & Martin, 1986). Every civilian participant in this study discussed gearing their entire higher education around the hope of one day achieving their dream role as a civilian CSI, and as a result, they planned to stay in the role for their complete career. Likewise, Kiedrowski et al. (2019) suggests that civilians contribute continuity to law enforcement as sworn roles are transient in nature. It was evident throughout the interviews that civilians were passionate about their roles and forensic science. Beyond just merely being curious or wanting to try something new to get off patrol, like their sworn counterparts, civilian participant’s stories about what led them to this specific career path really encompassed their enthusiasm. Kelty et al. (2011) identified top performing CSI as having a genuine passion and dedication to their role. Similarly, to Kelty et al. (2017), passion was further reflected through civilian participants engagement in academic conferences and their inclination for continuous professional development. While many FIS were invested in training opportunities to ensure their competence was sufficient for court, CFIMs had a genuine investment in understanding newly published research so they could improve their scientific techniques. This finding

is supported by previous literature that asserts professionalism is recognized as having people committed to learning, specializing, and honing their skills (Wilson-Kovacs, 2014).

Much of the existing literature relating to civilianization emphasizes that the long-term retention of highly skilled civilians can be difficult (Alderden & Skogan, 2014). This contradicts the findings of my study which suggests that civilians are a long-term investment for FIUs. However, at this time, it is difficult to assert whether longevity is in fact a benefit of civilians in forensic identification, as many participants in the sample were only recently hired or in the infancy of their career. As such, participants representing senior leadership of FIUs were cautious that the retention of civilians may become increasingly difficult for a few reasons: 1) they may get bored over time as there is minimal potential for promotion and professional advancement 2) they too may experience psychological injury after being exposed to crime scenes long-term, 3) their roles and responsibilities may become repetitive.

5.4. Us Versus Them

Ultimately, research indicates that civilians disrupt the organizational cohesion of law enforcement agencies which has led to an 'us versus them' mentality between sworn officers and civilian personnel (Kiedrowski et al., 2019; Alderden & Skogan, 2014; Boivin et al., 2020). In my study, both sworn and civilian participants emphasized that they experience a toxic workplace culture, in ways that were unique to their individual roles within FIUs. Sworn participants revealed that organizational politics are at the root of why they feel their workplace is toxic in nature which is consistent with previous research which discusses the us versus them mentality that sworn officers have with senior leadership and administrators (Brough et al., 2016). Similarly to other scholars, the most stressful factors impacting sworn officers were staff shortages, inconsistent leadership styles and bureaucratic red tape (Kelty & Gordon, 2015; McKay-Davis et al., 2020; Short, 2021; Sollie et al., 2017). In my study, sworn participants discussed the state of morale within their units and suggested that because of the rotating door of members and transient leadership, the cohesion was entirely disrupted. Consistent with previous literature, the demand to complete casework when a unit is short staffed causes strain, leading sworn officers to burnout and experience psychological harm (Kelty & Gordon, 2012, 2015; Sollie et al., 2017). One very concerning finding was sworn participants

contrasting their encounters with violent scenes of death to the toxic culture experienced in the workplace and how they would rather go to an active shooter call then work back in their office.

On the other hand, civilian's experiences reflected that toxicity stems from interactions at the individual level, in addition to the broader organization. This finding is supported by previous empirical research which suggests that sworn officers have difficulty treating civilians with the same respect they give to their sworn colleagues (Alderden & Skogan, 2014; Brough et al., 2016; Chappell & Lanza-Kaduce, 2010; McCarty & Skogan, 2013; Shernock, 1988). Similar to Shernock (1988)' findings, sworn participants emphasized having stronger relationships with other sworn officers as a result of their shared experiences on duty. Statements like, "I can phone any regular member anywhere in the country and have a conversation about work, but I can't do that with civilians" reiterates that sworn participants in my study believe outsiders cannot possibly understand their job which has been noted by previous scholars (Alderden & Skogan, 2014). In Shernock's (1988) research, the sworn officers discussed having all worked together at some point in their career and said, "you get a civilian in here and to him it's just a job". Participants in my study discuss how sworn have already proven themselves before they get into specialized units, and as a result they do not have to work as hard as civilians to prove their abilities and skills. McKay-Davis (2020) also found that civilian forensic technicians did not feel they were treated as equal members of the team.

Consistent with MacDonald & Martin (1987)'s findings, civilian participants in my study emphasize how status, recognition and reward in law enforcement environments are all based on rank. A key discussion point for civilians is the reality that they just do not fit into the organizational hierarchy of policing. Lentz et al. (2020) also found that the bureaucratic structure of law enforcement enforces that civilians do not belong, are treated like "the other" and are lesser when compared with their sworn counterparts. Civilians discuss their inability to appreciate the respect that comes from rank. Previous scholars have also noted that initial recruit training socializes police to hold certain values and reinforce the bond while civilians join policing with less regimented and individualistic values (Leuprecht, 2019). Similar to Kiedrowski et al. (2017) and Simpson (2018), civilians discuss being objectified by the lack of stripes on their shoulders which highlights the importance sworn officers place on the symbolic meaning of their uniform

as it emphasizes group membership and status. My participants, like those of Kiedrowski et al. (2017) highlight how uniforms and badges promote caste-like distinctions between sworn and civilian members that ultimately erode organizational cohesion.

One contentious issue for civilians in this study was their job title failing to accurately reflect their role in FIUs. Civilian participants further constructed the title “assistant” as degrading to all they contribute to FIUs as it suggests they are merely support, when they in fact manage their own crime scenes. Consistent with Rice (2020), civilians were initially recruited as support staff which infers their junior partnership with senior members however, as CFIMs established themselves as equal partners, role blurring occurred and there was little effort on behalf of their sworn colleagues and the organization to accommodate the evolving nature of civilian roles into the organizational infrastructure. Sworn personnel are titled as members and civilians by contrast are called employees. Civilians are better established in FIUs due to their longevity within these units, and as a result, civilian participants discuss being responsible for training all the new sworn officers that come into the unit. As Rice (2020) showed, civilians were routinely found to be mentoring and training new officers hired into FIUs and so they felt that they were being given leadership responsibilities but were not receiving the recognition that comes with leadership roles in policing. Again, reaffirming their inability to be integrated into the organizational structure by sworn personnel and be recognized through rank and file.

The experiences of civilians in FIUs are parallel to the experiences of civilians in police dispatching. Both CFIMs and dispatchers are undervalued within the policing profession which leads to their contributions being ignored (Orosco, 2022). Scholars found that civilian dispatchers are excluded from training opportunities and therefore, are unable to advance their skill sets (Orosco, 2022; Orosco & Gaub, 2023). Orosco & Gaub (2023) identified that police leadership lacks understanding about the dispatching role which is similar to the findings of the current study relating to FIU management and their knowledge of CFIMs. Finally, the most evident parallel relates to the “us versus them” mentality that prevails between sworn officers and police dispatchers. Ultimately, police dispatchers, like CFIMs, experience a two-tier system where civilians are made to feel less than (Orosco & Gaub, 2023).

Mental health support within law enforcement was a key discussion point for participants throughout the interviews. While the mental health of police officers is frequently discussed and studied, scholars have noted that the mental health of civilian law enforcement personnel is substantially understudied which is consistent with the narratives in my sample (Lentz et al., 2020; Martin et al., 2021; McKay-Davis et al., 2020; Sollie et al., 2017). Specifically, when speaking with management of FIUs, they were very well rounded in their discussions surrounding sworn mental health, being aware of the psychological struggles they face because of their work in crime scenes, and what organizational supports were available to them. When the conversation shifted to the mental health of civilians and the systemic supports in place for their mental health, this required management to access and refer to online documents to confirm the existing mental health resources in place which signifies limited to no knowledge of civilian resources. Similar to other scholars, participants in this study construct mental health supports for police officers as being well established but not accessible or available for civilian employees (Alderden & Skogan, 2014; Lentz et al., 2020; Martin et al., 2021; McKay-Davis et al., 2020). McKay-Davis also found that civilian forensic technicians were uncertain about what mental resources were available to them, whereas all sworn knew about the availability of such resources and how to access them. When probed about civilian mental health resources, one participant explains, "I'm gonna assume yes - that's the problem right now is our civilian workers are classified admin, it's two of them and they're on this admin team with not really any other cops. So, they're a little bit of an island on their own and they don't like it and we're trying to figure that out". This sentiment directly reflects the inequities that exist in law enforcement simply because of status associated with different categories of employees. As numerous scholars found, the distinctions in who is granted resources and who is not create a separate culture and reinforce the us versus them mentality through the exclusion of certain personnel who are critical when in a role exposed to volatile crime scenes (McKay-Davis et al., 2020; Orosco & Gaub, 2023). The lack of systemic support for civilianization indicates systemic inequities.

Skogan & Alderden (2011) explored job satisfaction of civilians in policing and identified that civilian expertise is often dismissed by sworn personnel. In my study, civilian participants discuss not being taken seriously at crime scenes when they are giving direction to sworn officers. McCarty & Skogan (2012) also found civilians occupy a

lower stratum in the hierarchy which manifests to inequitable working environments. One civilian in my study discusses attending the autopsy to collect further evidence from a decedent but prior to leaving, consulted the Sergeant, who had no forensic identification training, but advised not to collect specific evidence from the decedent. As a result, the CFIM followed the direction of their superior but upon returning to the office, realized that the entire case might be jeopardized because specific evidence was not available for analysis. Not only does this reflect the dangers associated with having leadership who has no scientific training or education, but it also reflects how civilians in law enforcement do not have a voice when those at the top of the hierarchy make decisions. These results are consistent with previous scholars who found that civilians are treated as second class citizens within their organizations despite their invaluable expertise (Alderden & Skogan, 2014; McCarty & Skogan, 2013).

One justification for civilian roles remaining limited in FIUs is the “substantial safety risks” present at crime scenes. While some participants agree that danger can be present in their role as a crime scene investigator, many emphasize that the supposed danger is completely mitigated by other law enforcement personnel whose primary purpose is to secure the scene and ensure no suspect re-enters. The majority of sworn participants in this study consistently asserted that civilianization would never be possible because civilians are unarmed and thus, could not protect themselves if a suspect returns. Essentially, sworn participants believe that use of force tools are required as CSI because law enforcement policy dictates that only sworn FIOs can attend unsecure crime scenes as they have the training and appropriate equipment to deal with the apprehension of suspects if necessary. As research conducted by Huey & Ricciardelli (2015) indicates, police are conceptualized as enforcers of the law which is deeply embedded in their self identity as officers. Thus, even when they move into specialty units that do not require such powers, they maintain this piece of their identity as they have been trained to always maintain the mindset of a police officer.

In continuing to explore the issue of safety on a deeper level, it was revealed by several participants that the safety issue is completely invalid but is tightly held onto by sworn officers as it suggests policing skills are necessary in this role. In fact, these participants discuss taking off their duty belt which includes all use of force tools, or working with sworn who would leave their duty belt in the car while they processed crime scenes. Sworn participants explain that their duty belt gets in the way when crouching

down to collect evidence and that it is just not necessary, considering there are general patrol officers outside whose sole duty is to ensure continuity of the crime scene. As one participant put it, “when you are looking down the viewfinder of your camera, you aren’t paying attention to what is behind you anyways”. This sentiment suggests that while wearing the hat of a forensics officer it is impossible to simultaneously be a police officer. Other participants suggest that they have never attended a crime scene, as sworn or civilians, where scene security was not present because continuity and chain of custody are essential when the case gets to court.

Together, these findings suggest that while there may be the possibility of elevated risk, it also nullifies the primary argument brought forward as to why civilian roles cannot evolve, given that sworn in this sample have by choice, processed crime scenes unarmed. As an Inspector highlighted, “that’s the one I struggled with all week, was trying to figure out what value do sworn officers bring over civilians? and I don’t know - certainly there’s the officer safety perspective but that has nothing to do with crime scene work”. No previous study has explored whether a gun and badge were essential in the practice of crime scene investigation and this sole argument has been used by law enforcement to justify why there must be sworn officers in forensic identification. Hence, a contribution of this study is that it demonstrates through empirical evidence that safety concerns are not as deeply embedded in crime scene work as many law enforcement personnel have suggested.

One civilian participant discusses that when armed officers enter a crime scene, an extreme risk of gunshot residue transfer exists with potential to contaminate crime scene evidence. A study conducted in Belgium examined the potential risk of gunshot residue (GSR) transfer from crime scene investigators to arrested suspects (Charles & Geusens, 2012). The authors found contamination was most likely during the arrest process and the level of contamination is only high if certain arrest procedures are performed with gloves on (Charles & Geusens, 2012). Otherwise, potential contamination risk was deemed relatively low. Though Charles & Geusens findings support the participants concern that there is a presence of risk for GSR transfer, this would not be applicable in Canada unless FIOs are directly involved in the arrest of a suspect, which participants said rarely, if ever occurs. Thus, because departments of law enforcement are decompartmentalized in Canada and crime scene investigators usually

come in after the scene has been contained, the findings of Charles & Geusens (2012) cannot be directly linked to this study's finding.

Other systemically ingrained limitations to the civilian role relate to legislative restrictions in how the Criminal Code and federal statutes are written. Specifically, search warrants must be executed by sworn officers but if a civilian assists in that execution, they must be named in the search warrant, as do their qualifications and their reason for being there. Even the laws are written in a way that favour sworn police officers over civilian members of law enforcement. This has yet to be explored by other scholars and is unique to this study. In addition, these findings highlight that the law itself is unreasonable as the law has not kept up with the evolution of policing to meet the current needs of society. While police have modernized to include civilians in criminal investigations, the law was written in an era where civilians were not even considered as it was a sworn world. With the modernization of investigative policing, must also come a modernization of the law.

Taken together, this study's findings reaffirm that the culture of differentiating between sworn versus civilian in law enforcement is one of the greatest stumbling blocks to advancing crime scene investigation. Extreme resistance from law enforcement to accept that those without previous policing background and "street" experience can fulfill roles that were historically done by sworn officers and do them exceptionally well.

5.5. Should Forensic Identification Units Civilianize?

Taken together, this discussion demonstrates that civilian employees are beneficial to units in law enforcement like Forensic Identification. Considering the high turnover of sworn personnel because of their keen desire for career advancement opportunities and tenure policies that force municipal officers out of specialty units, civilians offer continuity and a honed expertise which is vital in units like forensic identification.

Beyond the academic qualifications of civilians, their expertise and knowledge are driven by purely scientific endeavours rather than police driven science. Civilians demonstrate a unique commitment to continuous learning that is not centered around their reputation in court but rather a passionate desire to learn about new scientific

techniques that may improve their ability to collect and analyze crime scene evidence. Based on the data from the current study, e.g., civilian upkeep of scientific technology, independent engagement in continuous learning, active research engagement, their passion for FIUs, and building their expertise over an entire career, all of these factors taken together only imply that civilians may be scientifically more informed than their sworn counterparts. However, this study was unable to empirically test whether CFIMs are for certain, more scientifically informed than sworn FIS.

Unlike some FIS, civilians did not stumble upon a career in forensics because they were curious or wanted to try something new as a stepping-stone into other more desirable units. Rather, they have purposefully geared their entire post-secondary education around the hope of one day fulfilling the qualifications required to become a civilian CSI. One challenging aspect of policing is the reality that senior police leadership is not putting the most qualified officers into expert forensics positions, but rather just rotating constables in and out to ensure front line and specialty positions are adequately filled.

Though most sworn participants 14/18 (77.7%) are adamant civilianization could never happen in Canada because of safety concerns at crime scenes, participants in this research invalidate such claims when they discussed that their duty belt comes off anyway as it is impossible to be a police officer and an FIO simultaneously. In addition, this research highlights that in Canada, crime scene investigation is a secondary response in law enforcement. Hence, scene security should be present at crime scenes because FROs, also known as general patrol officers, will receive the initial call for service and are required for court purposes, to maintain continuity of that scene until forensic identification personnel attends, collects the appropriate evidence, and completes their examination of that scene. Finally, the data from this research lead me to suggest that civilians offer the scientific knowledge necessary to improve the practice of crime scene investigation in Canada. Whether or not the police culture will accept such assertions and integrate these changes is uncertain at this time as resistance continues to characterize discussions around civilianization.

5.6. Limitations

Though this study makes a valuable contribution to the existing literature examining civilianization in a Canadian context, it is not without limitations. Although study participants worked across Canada, not all provinces are included, and participants are from a small number of municipal agencies. Future research should expand the sample to see if these results are consistent across Canada.

Future research examining civilianization in FIUs must include perspectives of those who manage operational decisions about civilians. Specifically, speaking with police executives and union representatives, of both sworn and civilian members, could provide unique insight into the barriers faced with introducing civilians into the structure of law enforcement. While it was essential to speak to those directly involved in the day-to-day functions of FIUs, they could only speculate about the reasons civilian roles remain extremely limited.

I recognize that participants may have been hesitant to share their experiences with me, given my outsider status to the forensic identification profession. A handful of civilian participants expressed that they had not fully shared their experiences or were guarded because they knew the research would be published and civilians represent a minority in the Canadian forensic identification community. Many civilians further explained, they felt it would be easy for the senior officers to identify them, so they were cautious in the issues they brought forward while being recorded. Civilian skepticism may have stemmed from the use of gatekeepers in their agency, which often involved high ranking senior members who allowed access and dispersed study information. In one interview, the civilian participant's agency dictated the types of questions that could be or could not be answered which led to a limited interview that felt scripted by agency narratives about the portrayal of civilianization.

Some civilians may have been cautious due to professional relationships they had with the gatekeeper or an uncertainty relating to my relationship as a researcher with the gatekeeper. In addition, sworn participants appeared skeptical at first and often questioned how I came to be interested in this work. In addition, sworn participants would confirm prior to answering specific questions that their responses were going to be

kept confidential which signified the skepticism of police to those outside their police family. Therefore, it is possible the stories may have been incomplete.

Despite my efforts to diversify the sample by recruiting personnel from a variety of agency types and province locations, many of the participants knew each other due to the tight knit community of forensic identification in Canada. Though collective experiences reinforce similar insights on civilianization in FIUs across Canada, I also saw it as a limitation because civilian participants tended to discuss their colleagues' experiences rather than focusing on their individual thoughts and perspectives. For instance, when discussing their experiences of being othered by sworn officers, civilians would often say, "you have already spoken with my colleague who told you about how they were treated by their sworn counterparts" or caveating statements with, "this was the experience of my colleague, not me". Thus, participant perspectives may reflect shared collective experiences rather than diverse and individualized perspectives across the forensic identification community.

Finally, due to the ongoing COVID-19 pandemic, all interviews occurred on Zoom. While Zoom allowed me to reach more personnel across Canada, the interviews felt less personal and it was more difficult to build rapport and gain participant trust. Though I made every effort to build rapport, at times the online setting presented barriers to achieving a genuine connection. In addition, weak and lost internet connection occurred when participants were in the middle of sharing their experiences important to understanding the impact of civilianization on them. Once connection was restored, it was sometimes difficult to return to an authentic conversation or have them repeat their initial response.

5.7. Policy Implications

The findings indicate that civilians receive alarmingly less training than their sworn counterparts. While efforts to civilianize remain in their infancy in Canadian FIUs, agencies must provide civilians with adequate training at the Canadian Police College or the Ontario Police College. Despite earlier sections of this thesis discussing civilians familiarity of the concepts taught at the colleges, they must receive the same eight week training as their sworn counterparts to dismantle policies that implicitly contribute to the "us versus them" mentality between FIS and CFIMs. By creating equal training

opportunities for both FIS and CFIMs, this will hopefully mitigate distinctions made about where one's knowledge is derived from. As such, it cannot be overemphasized that training for civilians in forensic identification at the police colleges must be standardized across Canada as it is for their sworn counterparts. A primary explanation offered by participants was that civilian roles remain stagnant because they lack formal training from police institutions. In theory, once civilians do receive training from the police colleges, CFIM roles and responsibilities should involve serious crimes as they would be equally qualified as FIS, if not more given their education. Finally, as Alderden & Skogan (2014) argued, "police departments must consider ways in which they can promote great acceptance of civilians in policing and training may be one vehicle for doing so" (p.280). Equitable training opportunities have the potential to mitigate sworn perceptions that they are advantageous over civilians because of their formal police training.

Findings reveal a lack of forensic identification training specific to management of FIUs. Given the crucial role that management plays in validating identifications made by FIS, it is essential that management is trained to understand how an identification is determined. By training management to the same level as FIS through the eight-week course at the police colleges, this will ensure that erroneous identifications are mitigated and will also relieve the increasing burden placed on FIS workloads that results when their superiors are not forensically trained.

Police departments must integrate mental health resources and support for civilians, especially those in criminal investigation departments. Police executives argue that civilians are not exposed to the extent of volatility that sworn officers are, but this research suggests otherwise. Though civilians do primarily process crime scenes of a less serious nature, civilian participants in this study emphasized that they are frequently involved in attending crimes of a more serious nature in conjunction with sworn officers on their team. As such, they are exposed to traumatic scenes which may cause psychological harm but do not have the same mental health safeguards in place. Policies surrounding the availability of mental health resources for civilians must change, especially when considering that civilians are long-term members of forensic identification units.

Given the evolving nature of policing and modernization of those carrying out police functions, the laws and federal statutes that guide police practice must progress.

Hence, the Criminal Code must be changed to include civilian personnel of law enforcement in search and seizure warrant parameters. In doing so, this will mitigate the additional paperwork that was suggested as problematic for sworn officers and would make integrating civilians into crime scene work much simpler from a legislative standpoint.

Another recommendation relates to the evaluation of tenure policies in municipal agencies for specialty units like forensic identification. This is particularly important from a forensic science expertise standpoint as it is highly concerning that personnel are consistently being moved in and out of such units. I suggest that a hybrid tenure track be implemented for sworn officers in forensic identification units. A hybrid tenure track would consist of regular tenure for those just wanting the exposure to investigative experience and another track that allows those with a desire and passion to stay in the unit for their entire career if they so wish. For the small portion of sworn participants interviewed, moving toward a hybrid tenure track would substantially mitigate their frustration with organizational policies that they feel completely discredit their efforts to become trained and competent in the field of forensic identification. Allowing those who have a genuine interest in forensic identification to stay, provides stability in the unit by retaining expertise rather than bringing in a rookie off the streets, having to train them and wait until they become competent, all while sending the specialized officer back to the street to fulfill generalized functions. Finally, post-secondary education must be implemented as a hiring requirement for sworn officers wanting to pursue a career in FIUs. As this research identified, there are minimal qualifications required at the time of hire which may encourage officers to apply for the wrong reasons. Rather, if there was an educational component required, this would not only reflect the technical nature of the unit but also imply that the work in forensic identification units requires higher level thinking.

5.8. Future Research

My study provides a first step in understanding civilianization of specialty law enforcement units, specifically forensic identification. My study lays the foundation for future research and offers insight into an understudied topic with suggestions for areas that need further exploration.

1. Future research examining civilianization should seek to understand the role of gender in the experiences of non-sworn personnel, as Kiedrowski et al., 2019 indicates, 57 percent of civilian personnel are women, whereas about 79 percent of sworn officers are men. Examining the role of gender may reveal additional dynamics that were not considered or analyzed in the current study.
2. Future studies relating to the civilianization of Canadian Forensic Identification Units should examine fully civilianized crime scene unit that exists in Canada, such as North Bay, to understand how fully civilianized units operationally function.
3. A comparative study of units also comprised of mixed units such as cyber-crime would help determine whether they face the same issues related to dynamics, organizational and legislative restrictions, and the roles and responsibilities of personnel.
4. A longitudinal study may offer insight into whether civilians longevity is role specific within law enforcement and whether civilians in FIUs do actually go on to fulfill a 25-year in forensics as they suggest in the current study. Existing literature on civilianization emphasizes high attrition rates due to boredom and a lack of career advancement opportunities. Future research should seek to determine if these experiences are consistent with civilians in speciality units.
5. Future studies must focus on better understanding civilian mental health. Although not the focus of this research, the theme emerged when participants engaged in discussion about the experiences of civilians in law enforcement.
6. Finally, future research should seek to understand the number of times a suspect has returned which required sworn tactical response through apprehension or use of force tools. This will offer insight as to how many times a forensic officer has actually responded to suspect behavior while processing the scene of a crime and whether scene security was also present during these situations.
7. Future research should seek to examine civilian uniforms in greater depth and whether the presence of such uniforms impacts sworn officers' perceptions of civilians.

Chapter 6.

Conclusion

My study captured the experiences of those directly involved in the integration of civilians into Forensic Identification Units across Canada. Through qualitative accounts, participants highlighted that while civilianization is extremely beneficial in units like forensic identification, extreme cultural barriers must be overcome before civilians can be fully accepted members within their respective organizations. I argued throughout this thesis that the benefits of civilianization reach far beyond financial. This thesis is confirmation that the organizational culture for sworn officers in specialty units hinders their ability to maintain long-term expertise within FIUs. Thus, civilian expertise is essential for counteracting the challenges posed by the organizational culture of sworn officers.

The current model existing within forensic identification is centered around traditional perspectives of how policing functions should be carried out. As such, sworn officers are given many roles and responsibilities, while civilians remain a support service to police officers, despite being more educationally qualified. This thesis highlights that the relationship between crime scene investigation and law enforcement in Canada is centered around applying forensic science in a way that suits the needs of the criminal justice system. Given that civilians are scientifically educated through post-secondary, sworn officers tend to perceive their contributions as being too extreme for what is necessary within police driven science. These distinctions highlight that while many have argued crime scene investigation to be a scientific endeavour, it is one tailored to meet the specific needs of policing organizations and thus, may not be purely scientific in nature. As a result, the training and education that sworn members value is centered around police driven science and lacks the attributes associated with purely scientific methodologies.

While sworn officers do not always enter FIUs enthusiastically, civilians genuine desire for the work translates into the quality of their contributions in forensic identification. Additionally, given the organizational culture existing within policing, sworn

are not given the opportunity, even if they desire, to hone their expertise due to restrictive tenure policies and strong emphasis attributed to career advancement.

Participants consistently asserted civilianization would not be possible in Canadian FIUs because the skills of a police officer were essential to the work. However, this research uniquely demonstrates that while experience in investigations may provide advantageous insight, a gun and badge have little to do with processing a crime scene forensically. This mindset will be one of the greatest obstacles that civilianization will have to overcome. While this thesis has validated that policing skills may not be necessary for crime scene investigation, what is essential is post-secondary education and the long-term inquisitive mind and skills that comes from higher education. As one sworn leader stated,

I think our biggest stumbling block has been and always will be, is getting over the fact that we can have a civilian do a sworn members role . . . There's a mindset out there that this should be a police function and a police function only and when you challenge people on that assumption or that mindset, typically they can't give you an answer other than "well, it's always been a police function" but that's a significant hurdle in policing to get over - what's traditionally been a core policing function is a mindset and it has been a hurdle. (Participant 62S)

While it may be empirically validated that civilians are highly educated forensic scientists, there remains uncertainty about where they fit within the organizational structure of policing. Though this research suggests civilianization should go forward, the question remains about whether law enforcement can let go of the tightly held onto traditions and beliefs that continue perpetuating a sworn officer world.

Jurisprudence

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References

- Adams, I. T., & Mastracci, S. H. (2020). Contrasting emotional labor and burnout in civilian and sworn law enforcement personnel. *Policing: An International Journal*, 43(2), 314–329. <https://doi.org/10.1108/PIJPSM-06-2019-0094>
- Alderden, M., & Skogan, W. (2014). The place of civilians in policing. *Policing: An International Journal of Police Strategies & Management*, 37(2), 259–284. <https://doi.org/10.1108/PIJPSM-12-2012-0073>
- Anderson, G. (2017). *All You Ever Wanted to Know About Forensic Science in Canada but Didn't Know Who to Ask*. (2nd ed.). Canadian Society of Forensic Science. <https://www.csfs.ca/wp-content/uploads/2017/08/Forensic-Science-Career-Booklet-GSA-2017-2nd-Edition-1-ilovepdf-compressed.pdf>
- Barriball, L. K., & While, A. (1994). Collecting data using a semi-structured interview: A discussion paper. *Journal of Advanced Nursing*, 19, 328–335.
- Basham, B. R. (2020). Police instructor or police educator? *Salus Journal*, 2(1), 99–109. <https://doi.org/10.3316/informit.748142245128192>
- BayToday Staff. (2016, May 20). *Policing from a forensic identification officer's perspective*. BayToday. <https://www.baytoday.ca/local-news/policing-from-a-forensic-identification-officers-perspective-301085>
- Becker, H. S. (1998). Sampling. In *Tricks of the trade: How to think of your research while you're doing it*. (pp. 67–108). University of Chicago Press.
- Belur, J., & Johnson, S. (2018). Is crime analysis at the heart of policing practice? A case study. *Policing and Society*, 28(7), 768–786. <https://doi.org/10.1080/10439463.2016.1262364>
- Biernacki, P., & Waldorf, D. (1981). Snowball Sampling: Problems and Techniques of Chain Referral Sampling. *Sociological Methods & Research*, 10(2), 141–163. <https://doi.org/10.1177/004912418101000205>
- Boivin, R., Faubert, C., Gendron, A., & Poulin, B. (2020). The 'us vs them' mentality: A comparison of police cadets at different stages of their training. *Police Practice and Research*, 21(1), 49–61. <https://doi.org/10.1080/15614263.2018.1555480>

- Boyd, E., Geoghegan, R., & Gibbs, B. (2011). *Cost of the cops: Manpower and deployment in policing*. Policy Exchange.
- Bradbury, S.-A., & Feist, A. (2005). *The use of forensic science in volume crime investigations: A review of the research literature* (pp. 1–102). Home Office. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/115849/hoor4305.pdf
- Brodeur, J.-P. (2010). *The policing web*. Oxford University Press.
- Brough, P., Chataway, S., & Biggs, A. (2016). 'You don't want people knowing you're a copper!' A contemporary assessment of police organisational culture. *International Journal of Police Science & Management*, 18(1), 28–36. <https://doi.org/10.1177/1461355716638361>
- Buckley, L. B. (1995). Attitudes toward higher education among mid-career police officers. In N. Larsen (Ed.), *The Canadian criminal justice system: An issues approach to the administration of justice*. Canadian Scholars' Press.
- Buckley, L. B., McGinnes, J. H., & Petrunik, M. (1993). Police perceptions of education as an entitlement to promotion: An equity theory perspective. *American Journal of Police*, 12(2), 77–100.
- Calgary Police Service. (2023). *Join Calgary Police Service*. Minimum Requirements: Requirements of a CPS Officer. <https://join.calgarypolice.ca/requirements-of-a-cps-officer/>
- Campbell, C., Carter, J., & Pollard, N. (2021). *Canadian Policing* (2nd ed.). Oxford.
- Campeau, H. (2019). Institutional myths and generational boundaries: Cultural inertia in the police organisation. *Policing and Society*, 29(1), 69–84. <https://doi.org/10.1080/10439463.2017.1371718>
- Canadian Police College. (2023). *Forensic Identification*. Programs. <https://www.cpc-ccp.gc.ca/programs-programmes/forensic-ident-judiciaire/index-eng.htm>
- Canter, D. (2004). A tale of two cultures: A comparison of the cultures of the police and of academia. *Policing a Safe, Just and Tolerant Society*, 109–121.
- Capsambelis, C. R. (2002). So your student wants to be a crime scene technician? *Journal of Criminal Justice Education*, 13(1), 113–127. <https://doi.org/10.1080/10511250200085361>
- Chafe, F. (2008). Forensic Identification in Canada: A historical Perspective. *Identification Canada*, 31(1), 1–40.

- Chappell, A. T., & Lanza-Kaduce, L. (2010). Police Academy Socialization: Understanding the Lessons Learned in a Paramilitary-Bureaucratic Organization. *Journal of Contemporary Ethnography*, 39(2), 187–214. <https://doi.org/10.1177/0891241609342230>
- Charles, S., & Geusens, N. (2012). A study of the potential risk of gunshot residue transfer from special units of the police to arrested suspects. *Forensic Science International*, 216(1–3), 78–81. <https://doi.org/10.1016/j.forsciint.2011.08.022>
- Chess, A. P. (1960). Civilian Employees in a Police Department. *The Journal of Criminal Law, Criminology, and Police Science*, 50(6), 591. <https://doi.org/10.2307/1141456>
- Chowdhury, M. (2021b). A broken system? Examining the perilous state of quality assurance in crime scene practice. *Science & Justice*, 61(5), 564–572. <https://doi.org/10.1016/j.scijus.2021.07.001>
- Chowdhury, M. (2021b). Beyond bagging and tagging—An empirical investigation into the roles, designations and responsibilities of crime scene practitioners. *Science & Justice*, 61(3), 271–279. <https://doi.org/10.1016/j.scijus.2021.01.002>
- City of Hamilton. (2021). *Forensic Services Assistant (Hamilton Police Service)*. Current Opportunities. <https://www.hamilton.ca/jobs-city/current-opportunities>
- Cohen, I. M., Davies, G., Pastia, C., McCormick, A., Lee, Z., Osterberg, E., Burk, K., & Schenk, A. (2021). *An examination of the impact of court rulings on police investigation time and resources*. University of the Fraser Valley. <https://cjr.ufv.ca/wp-content/uploads/2021/08/Jordan-Study-Final-Report-in-Centre-Template.pdf>
- Conor, P., Carriere, S., Amey, S., Marcellus, S., & Sauve, J. (2020). *Police Resources in Canada, 2019*. Statistics Canada: Canadian Centre for Justice and Community Safety Statistics. <https://www150.statcan.gc.ca/n1/pub/85-002-x/2020001/article/00015-eng.htm>
- Cosgrove, F. M. (2016). 'I wannabe a copper': The engagement of Police Community Support Officers with the dominant police occupational culture. *Criminology & Criminal Justice*, 16(1), 119–138. <https://doi.org/10.1177/1748895815599580>
- Crank, J. P. (1989). Civilianization in small and medium police departments in Illinois, 1973–1986. *Journal of Criminal Justice*, 17(3), 167–177. [https://doi.org/10.1016/0047-2352\(89\)90017-2](https://doi.org/10.1016/0047-2352(89)90017-2)
- Crank, J. P. (2004). *Understanding police culture* (2nd ed). Anderson Pub.
- Crispino, F. (2008). Nature and place of crime scene management within forensic sciences. *Science & Justice*, 48(1), 24–28. <https://doi.org/10.1016/j.scijus.2007.09.009>

- Cunliffe, E., & Edmond, G. (2021). Justice without Science? Judging the Reliability of Forensic Science in Canada. *Canadian Bar Review*, 99(1), 66.
- De Camargo, C. (2019). 'They wanna be us'; PCSO performances, uniforms, and struggles for acceptance. *Policing and Society*, 30(7), 854–869.
<https://doi.org/10.1080/10439463.2019.1598998>
- De Paoli, S., Johnstone, J., Coull, N., Ferguson, I., Sinclair, G., Tomkins, P., Brown, M., & Martin, R. (2021). A qualitative exploratory study of the knowledge, forensic, and legal challenges from the perspective of police cybercrime specialists. *Policing: A Journal of Policy and Practice*, 15(2), 1429–1445.
<https://doi.org/10.1093/police/paaa027>
- Demirkol, I. C., & Nalla, M. K. (2020). Police culture: An empirical appraisal of the phenomenon. *Criminology & Criminal Justice*, 20(3), 319–338.
<https://doi.org/10.1177/1748895818823832>
- Department of Justice. (2021). *Police discretion with young offenders: Organizational factors affecting police discretion*. Government of Canada.
<https://www.justice.gc.ca/eng/rp-pr/cj-jp/yj-jj/discre/toc-tdm.html>
- Edmonton Police Service. (n.d.). *Is the EPS right for you? Potential*. Edmonton Police Service Recruiting. Retrieved August 12, 2023, from
<https://www.joineps.ca/WhyEPS/IsEPSRightForYou/1Potential>
- Edmonton Police Service. (2019). *Forensic Identification Services Section*.
<https://www.edmontonpolice.ca/CommunityPolicing/OperationalServices/ForensicIdentificationServicesSection>
- Elliott, R., & Timulak, L. (2005). Descriptive and interpretive approaches to qualitative research. In J. Miles & P. Gilbert, *A handbook of research methods for clinical and health psychology* (Eds., pp. 147–159). Oxford University Press.
<https://doi.org/10.1093/med:psych/9780198527565.003.0011>
- Fitz-Gibson, K. (2016). Gaining access and managing gatekeepers: Undertaking criminological research with those “within” the system. In M. H. Jacobsen & S. Walklate, *Liquid Criminology: Doing Imaginative Criminological Research* (pp. 173–187). Taylor & Francis Group. <http://ebookcentral.proquest.com/lib/sfu-ebooks/detail.action?docID=4560332>
- Forbat, L., & Henderson, J. (2005). Theoretical and practical reflections on sharing transcripts with participants. *Qualitative Health Research*, 15(8), 1114–1128.
<https://doi.org/10.1177/1049732305279065>
- Forst, B. (2000). The privatization and civilianization of policing. *Criminal Justice*, 2(24), 19–78.

- Galletta, A. (2013). The semi-structured interview as a repertoire of possibilities. In *Mastering the semi-structured interview and beyond: From research design to analysis and publication*. New York University Press.
- Griffiths, C. T. (2016). *Canadian police work* (4th ed.). Nelson Education LTD.
- Griffiths, C. T., Palmer, S. A., Weeks, S. L., & Polydore, B. (2006). *Civilianization in the Vancouver Police Department*.
<https://council.vancouver.ca/documents/rr1onfile4.pdf>
- Griffiths, C. T., Pollard, N., & Stamatakis, T. (2015). Assessing the effectiveness and efficiency of a police service: The analytics of operational reviews. *Police Practice and Research*, 16(2), 175–187.
<https://doi.org/10.1080/15614263.2014.972621>
- Halcomb, E. J., & Davidson, P. M. (2006). Is verbatim transcription of interview data always necessary? *Applied Nursing Research*, 19, 38–42.
<https://doi.org/10.1016/j.apnr.2005.06.001>
- Harkin, D., & Whelan, C. (2022). Perceptions of police training needs in cyber-crime. *International Journal of Police Science & Management*, 24(1), 66–76.
<https://doi.org/10.1177/14613557211036565>
- Harkin, D., Whelan, C., & Chang, L. (2018). The challenges facing specialist police cyber-crime units: An empirical analysis. *Police Practice and Research*, 19(6), 519–536. <https://doi.org/10.1080/15614263.2018.1507889>
- Harrison, K. (2006). Is Crime Scene Examination science, and does it matter anyway? *Science & Justice*, 46(2), 65–68. [https://doi.org/10.1016/S1355-0306\(06\)71576-3](https://doi.org/10.1016/S1355-0306(06)71576-3)
- Howes, L. M. (2017). ‘Sometimes I give up on the report and ring the scientist’: Bridging the gap between what forensic scientists write and what police investigators read. *Policing and Society*, 27(5), 541–559.
<https://doi.org/10.1080/10439463.2015.1089870>
- Huey, L., & Ricciardelli, R. (2015). ‘This isn’t what I signed up for’: When police officer role expectations conflict with the realities of general duty police work in remote communities. *International Journal of Police Science & Management*, 17(3), 194–203. <https://doi.org/10.1177/1461355715603590>
- Huisjes, H., Engbers, F., & Meurs, T. (2018). Higher Education for Police Professionals. The Dutch Case. *Policing: A Journal of Policy and Practice*, 14(2), 362–373.
<https://doi.org/10.1093/police/pay089>
- Illes, M., Wilson, P., & Bruce, C. (2019). Forensic epistemology: Testing the reasoning skills of crime scene experts. *Canadian Society of Forensic Science Journal*, 52(4), 151–173. <https://doi.org/10.1080/00085030.2019.1664260>

- Ingram, J. R., Paoline, E. A., & Terrill, W. (2013). A multilevel framework for understanding police culture: The roles of the workgroup. *Criminology*, 51(2), 365–397. <https://doi.org/10.1111/1745-9125.12009>
- Jaschke, H.-G., & Neidhardt, K. (2007). A Modern Police Science as an Integrated Academic Discipline: A Contribution to the Debate on its Fundamentals. *Policing and Society*, 17(4), 303–320. <https://doi.org/10.1080/10439460701717882>
- Julian, R., & Kelty, S. F. (2015). Forensic science as “risky business”: Identifying key risk factors in the forensic process from crime scene to court. *Journal of Criminological Research, Policy and Practice*, 1(4), 195–206. <https://doi.org/10.1108/JCRPP-09-2015-0044>
- Julian, R., Kelty, S., & Robertson, J. (2012). “Get it right the first time”: Critical Issues at the Crime Scene. *Current Issues in Criminal Justice*, 24(1), 25–37. <https://doi.org/10.1080/10345329.2012.12035942>
- Kelty, S. F. (2011). Professionalism in crime scene examination: Recruitment strategies using the seven key attributes of top crime scene examiners. *Forensic Science Policy & Management: An International Journal*, 2(4), 198–204. <https://doi.org/10.1080/19409044.2012.706689>
- Kelty, S. F., & Gordon, H. (2012). Professionalism in Crime Scene Examination: Recruitment Strategies, Part 2: Using a Psychometric Profile of Top Crime Scene Examiners in Selection Decision Making. *Forensic Science Policy & Management: An International Journal*, 3(4), 189–199. <https://doi.org/10.1080/19409044.2013.858799>
- Kelty, S. F., & Gordon, H. (2015). No burnout at this coal-face: Managing occupational stress in forensic personnel and the implications for forensic and criminal justice agencies. *Psychiatry, Psychology and Law*, 22(2), 273–290. <https://doi.org/10.1080/13218719.2014.941092>
- Kelty, S. F., Julian, R., & Robertson, J. (2011). Professionalism in Crime Scene Examination: The Seven Key Attributes of Top Crime Scene Examiners. *Forensic Science Policy & Management: An International Journal*, 2(4), 175–186. <https://doi.org/10.1080/19409044.2012.693572>
- Kelty, S. F., Robertson, J., & Julian, R. (2017). Beyond technical training to professionalism in crime scene examination: Enhancing cognitive, leadership, and social abilities in career development programs. *Forensic Science Policy & Management: An International Journal*, 8(3–4), 65–78. <https://doi.org/10.1080/19409044.2017.1370039>
- Kiedrowski, J., Melchers, R.-F., Ruddell, R., & Petrunik, M. (2017). *The Civilianization of Police in Canada*. Public Safety Canada. <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/2015-r042/2015-r042-en.pdf>

- Kiedrowski, J., Ruddell, R., & Petrunik, M. (2019). Police civilianisation in Canada: A mixed methods investigation. *Policing and Society*, 29(2), 204–222. <https://doi.org/10.1080/10439463.2017.1281925>
- King, B. W. (1987, July). *Automated Fingerprint Identification System Operation in Canada [Lecture]*. International Forensic Symposium on Latent Prints. <https://www.ojp.gov/pdffiles1/Digitization/113506-113520NCJRS.pdf>
- King, W., & Wilson, J. (2014). *Integrating civilian staff into police agencies*. U.S. Department of Justice: Office of Community Oriented Policing Services.
- Kruse, C. (2020). Swedish crime scene technicians: Facilitations, epistemic frictions and professionalization from the outside. *Nordic Journal of Criminology*, 21(1), 67–83. <https://doi.org/10.1080/2578983X.2019.1627808>
- Kumar, T. K. V. (2019). Variation in the perception of desired qualities of police officers among trainees and senior police officers. Insights into the process and efficacy of police training. *International Journal of Comparative and Applied Criminal Justice*, 43(3), 241–262. <https://doi.org/10.1080/01924036.2018.1558083>
- Lambert, E., Nerbonne, T., Watson, P. L., Buss, J., Clarke, A., Hogan, N., Barton, S., & Lambert, J. (2003). The forensic science needs of law enforcement applicants and recruits: A survey of Michigan law enforcement agencies. *Journal of Criminal Justice Education*, 14(1), 67–81. <https://doi.org/10.1080/10511250300085661>
- Laurentian University. (2023). *Forensic Identification | Program Details*. <https://laurentian.ca/program/forensicidentification/details>
- Lentz, L., Silverstone, P. H., & Krameddine, Y. I. (2020). High Rates of Mental Health Disorders in Civilian Employees Working in Police Organizations. *Frontiers in Psychology*, 11, 1031. <https://doi.org/10.3389/fpsyg.2020.01031>
- Leuprecht, C. (2019). *Where to draw the blue line: How civilians and contractors can let police do the policing*. Macdonald-Laurier Institute Publication.
- Lithopoulos, S., & Rigakos, G. (2005). Neo-liberalism, community, and police regionalization in Canada: A critical empirical analysis. *Policing: An International Journal of Police Strategies & Management*, 28, 337–352. <https://doi.org/10.1108/13639510510597942>
- Loftus, B. (2010). Police occupational culture: Classic themes, altered times. *Policing and Society*, 20(1), 1–20. <https://doi.org/10.1080/10439460903281547>
- Ludwig, A., & Fraser, J. (2014). Effective use of forensic science in volume crime investigations: Identifying recurring themes in the literature. *Science & Justice*, 54(1), 81–88. <https://doi.org/10.1016/j.scijus.2013.09.006>

- Ludwig, A., Fraser, J., & Williams, R. (2012). Crime scene examiners and volume crime investigations: An empirical study of perception and practice. *Forensic Science Policy & Management: An International Journal*, 3(2), 53–61. <https://doi.org/10.1080/19409044.2012.728680>
- MacDonald, V. N., & Martin, M. A. (1986). Specialists and the personnel structures of Canadian police forces. *Canadian Police College Journal*, 10(3), 189–226.
- Manning, P. K. (2015). Researching policing using qualitative methods. In H. Copes & J. Miller, *The Routledge Handbook of Qualitative Criminology* (pp. 281–298). Routledge. <https://doi.org/10.4324/9780203074701-31>
- Marshall, S. L., & While, A. E. (1994). Interviewing respondents who have English as a second language: Challenges encountered and suggestions for other researchers. *Journal of Advanced Nursing*, 19(3), 566–571. <https://doi.org/10.1111/j.1365-2648.1994.tb01122.x>
- Martin, K., Siddiqui, A., Ricciardelli, R., Lentz, L., & Carleton, R. N. (2021). Differences in Mental Health, Help-Seeking and Barriers to Care Between Civilians and Sworn Members Working in Law Enforcement: A Research Note. *Journal of Police and Criminal Psychology*, 36(3), 627–633. <https://doi.org/10.1007/s11896-021-09437-y>
- Mauthner, N. S., & Doucet, A. (2003). Reflexive Accounts and accounts of reflexivity in qualitative data analysis. *Sociology (Oxford)*, 37(3), 413–431. <https://doi.org/10.1177/00380385030373002>
- McCarty, W. P., & Skogan, W. G. (2013). Job-Related Burnout Among Civilian and Sworn Police Personnel. *Police Quarterly*, 16(1), 66–84. <https://doi.org/10.1177/1098611112457357>
- McGrath, W. T., & Mitchell, M. P. (Eds.). (1981). *The Police Function in Canada*. Methuen.
- McKay, R. B. (2014). Confronting Workplace Bullying: Agency and Structure in the Royal Canadian Mounted Police. *Sage Publications*, 46(5), 548–572. <https://doi.org/10.1177/0095399713509245>
- McKay-Davis, S., Robinson, T., Sebetan, I. M., & Stein, P. (2020). Civilian forensic technician and sworn police officer job-related stress. *Journal of Forensic Sciences*, 65(6), 2065–2070. <https://doi.org/10.1111/1556-4029.14543>
- Mennell, J. (2006). The future of forensic and crime scene science. *Forensic Science International*, 157, S13–S20. <https://doi.org/10.1016/j.forsciint.2005.12.023>
- Millen, P. (2000). Is crime scene investigation forensic science? Are crime scene investigators forensic scientists? *Science & Justice*, 40(2), 125–126. [https://doi.org/10.1016/S1355-0306\(00\)71957-5](https://doi.org/10.1016/S1355-0306(00)71957-5)

- Miller, M. T., & Massey, P. (2015). *The crime scene: A visual guide*. Elsevier Science.
- Mnookin, J. L., Cole, S. A., Dror, I. E., Fisher, B. A., Houck, M. M., Inman, K., Kaye, D. H., Koehler, J. J., Langenburg, G., Risinger, D. M., Rudin, N., Siegel, J., & Stoney, D. A. (2011). The need for research culture in the forensic sciences. *UCLA Law Review*, *58*(3), 725–782.
- Modise, J. M., & Raga, K. (2022). Police Subculture, Culture Factors, Law Enforcement and Code of Ethics. *International Journal of Innovative Science and Research Technology*, *7*(9).
- Montgomery, R. (2021). The Role of the Canadian Association of Chiefs of Police in Supporting the Professionalization of Police in Canada. *Policing: A Journal of Policy and Practice*, *15*(1), 222–233. <https://doi.org/10.1093/police/pay105>
- Moran, K. S. (2019). Forensic Archaeologist or Crime Scene Investigator? In K. S. Moran & C. L. Gold (Eds.), *Forensic Archaeology* (pp. 43–56). Springer International Publishing. https://doi.org/10.1007/978-3-030-03291-3_4
- National Research Council (Ed.). (2009). *Strengthening forensic science in the United States: A path forward*. National Academies Press.
- Nowlin, C., & Brockman, J. (2018). *An Introduction to Canadian Criminal Procedure and Evidence* (6th ed.). Nelson Education LTD.
- Oliva, J. R., & Compton, M. T. (2010). What do police officers value in the classroom?: A qualitative study of the classroom social environment in law enforcement education. *Policing: An International Journal of Police Strategies & Management*, *33*(2), 321–338. <https://doi.org/10.1108/13639511011044911>
- Ontario Provincial Police. (2020, January). *Historical Highlights 1909-2009: Origins of policing*. Ontario Provincial Police Museum. <https://www.opp.ca/museum/historicalhighlights.php>
- Orosco, C. (2022). *The Calm During the Storm: Identifying the Principles and Techniques of De-Escalation Among Police Dispatchers* [Ph.D., Arizona State University]. <https://www.proquest.com/docview/2670114911/abstract/D02B3A3D6B5E4B38PQ/1>
- Orosco, C., & Gaub, J. E. (2023). “I am doing my part, you are doing your part”: The sworn-civilian divide in police dispatching. *Policing: An International Journal*, *46*(1), 164–178. <https://doi.org/10.1108/PIJPSM-07-2022-0090>
- Palys, T. (2008). Purposive Sampling. In L. M. Given, *The Sage Encyclopedia of Qualitative Research Methods* (Ed., Vol. 2, pp. 697–698). Sage.

- Palys, T., & Atchison, C. (2014). Getting started. In *Research decisions: Quantitative, qualitative, and mixed methods approaches* (5th ed.). Nelson Education.
- Paoline, E. A. (2003). Taking stock: Toward a richer understanding of police culture. *Journal of Criminal Justice*, 31(3), 199–214. [https://doi.org/10.1016/S0047-2352\(03\)00002-3](https://doi.org/10.1016/S0047-2352(03)00002-3)
- Pepper, I. (2010). *Crime scene investigation: Methods and procedures*. McGraw-Hill Education.
- Perrott, S. B., & Kelloway, E. K. (2011). Scandals, sagging morale, and role ambiguity in the Royal Canadian Mounted Police: The end of a Canadian institution as we know it? *Police Practice and Research*, 12(2), 120–135. <https://doi.org/10.1080/15614263.2010.508983>
- Pollanen, M. S., Bowes, M. J., VanLaerhoven, S. L., & Wallace, J. (2012). *Forensic science in Canada: A report of multidisciplinary discussion*. Centre for Forensic Science & Medicine: University of Toronto.
- Pollock, J. M. (2021). *Ethical Dilemmas and Decisions in Criminal Justice* (11th.). Cengage Learning Inc.
- President's Council of Advisors on Science and Technology. (2016). *Forensic science in criminal courts: Ensuring scientific validity of feature-comparison methods*. Executive Office of the President of the United States. https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf
- Province of Ontario. (2004). *Major Case Management Manual*. Ministry of Community Safety and Correctional Services: Police Services Division.
- Public Safety Canada. (2019). *Contract Policing* (Briefing Book for the Minister of Public Safety Canada). Government of Canada. <https://www.publicsafety.gc.ca/cnt/trnsprnc/brfng-mtrls/trnstn-bndrs/20191120/013/index-en.aspx>
- Resnikoff, T., Ribaux, O., Baylon, A., Jendly, M., & Rossy, Q. (2015). The polymorphism of crime scene investigation: An exploratory analysis of the influence of crime and forensic intelligence on decisions made by crime scene examiners. *Forensic Science International*, 257, 425–434. <https://doi.org/10.1016/j.forsciint.2015.10.022>
- Ricciardelli, R., & Griffiths, C. T. (2017). North of 49: The Dynamics of Canadian Policing. *Police Practice and Research*, 18(6), 524–527. <https://doi.org/10.1080/15614263.2017.1368238>
- Rice, L. (2020). Junior partners or equal partners? Civilian investigators and the blurred boundaries of police detective work. *Policing and Society*, 30(8), 966–981. <https://doi.org/10.1080/10439463.2019.1632310>

- Robertson, J. (2012). Should Forensic Science Services be Independent of Policing? A Critical Reflection. *Current Issues in Criminal Justice*, 24(1), 131–137. <https://doi.org/10.1080/10345329.2012.12035949>
- Robertson, J., White, R., Kelty, S., & Julian, R. (2014). Professionalization and crime scene examination. *Forensic Science Policy & Management: An International Journal*, 5(3–4), 99–111. <https://doi.org/10.1080/19409044.2014.981348>
- Robertson, N. (2012). Policing: Fundamental principles in a Canadian context. *Canadian Public Administration*, 55(3), 343–363. <https://doi.org/10.1111/j.1754-7121.2012.00227.x>
- Rose, T., & Unnithan, P. (2015). In or out of the group? Police subculture and occupational stress. *Policing: An International Journal of Police Strategies & Management*, 38(2), 279–294. <https://doi.org/10.1108/PIJPSM-10-2014-0111>
- Rowe, M., Jones, M., Millie, A., & Ralph, L. (2023). Visible policing: Uniforms and the (re)construction of police occupational identity. *Policing and Society*, 33(2), 222–237. <https://doi.org/10.1080/10439463.2022.2096608>
- Royal Canadian Mounted Police. (2015, May 21). *Ranks of the Force* [Government of Canada]. <https://www.rcmp-grc.gc.ca/depot/orientation/prep-preparer/things-to-know-choses-a-savoir/ranks-grades-eng.htm>
- Royal Canadian Mounted Police. (2020). *Qualifications and Standards to Become an RCMP Officer*. Police Officer Careers: Qualifications and Requirements. <https://www.rcmp-grc.gc.ca/en/qualifications-and-requirements>
- Ryan, F., Coughlan, M., & Cronin, P. (2009). Interviewing in qualitative research: The one-to-one interview. *International Journal of Therapy and Rehabilitation*, 16(6), 309–314. <https://doi.org/10.12968/ijtr.2009.16.6.42433>
- Saks, M. J., & Faigman, D. L. (2008). Failed forensics: How forensic science lost its way and how it might yet find it. *Annual Review of Law and Social Science*, 4(1), 149–171. <https://doi.org/10.1146/annurev.lawsocsci.4.110707.172303>
- Saldivar, A. (2017). Minimum Education Requirements for Crime Scene Investigators. *Themis: Research Journal of Justice Studies and Forensic Science*, 5(1). <https://doi.org/10.31979/THEMIS.2017.0510>
- Seagrave, J. (1997). *Introduction to Policing in Canada*. Prentice-Hall Canada.
- Sharman, G. (1977). The Police and the Implementation of Public Law. *Canadian Public Administration*, 20(2), 291–304. <https://doi.org/10.1111/j.1754-7121.1977.tb01902.x>

- Shernock, S. K. (1988). Differential Significance of sworn status and organizational position in the civilianization of the police communications division. *Journal of Police Science and Administration*, 16(4), 288–302.
- Short, J. L. (2021). Predicting Mental Health Quality of Life in Policing: Officers and Civilians. *Journal of Police and Criminal Psychology*, 36(2), 276–287. <https://doi.org/10.1007/s11896-020-09415-w>
- Simpson, R. (2017). The Police Officer Perception Project (POPP): An experimental evaluation of factors that impact perceptions of the police. *Journal of Experimental Criminology*, 13(3), 393–415. <https://doi.org/10.1007/s11292-017-9292-4>
- Simpson, R. (2018). Officer Appearance and Perceptions of Police: Accoutrements as Signals of Intent. *Policing: A Journal of Policy and Practice*, 14(1), 243–257. <https://doi.org/10.1093/police/pay015>
- Simpson, R. (2019). Police vehicles as symbols of legitimacy. *Journal of Experimental Criminology*, 15(1), 87–101. <https://doi.org/10.1007/s11292-018-9343-5>
- Simpson, R., & Sargeant, E. (2022). Exploring the Perceptual Effects of Uniforms and Accoutrements Among a Sample of Police Officers: The Locker Room as a Site of Transformation. *Policing: A Journal of Policy and Practice*, paac002. <https://doi.org/10.1093/police/paac002>
- Skogan, W. G., & Alderden, M. A. (2011). *Job satisfaction among civilians in policing*. National Institute of Justice: National Police Research Platform. <https://www.ncjrs.gov/App/Publications/abstract.aspx>
- Sollie, H., Kop, N., & Euwema, M. C. (2017). Mental Resilience of Crime Scene Investigators: How Police Officers Perceive and Cope With the Impact of Demanding Work Situations. *Criminal Justice and Behavior*, 44(12), 1580–1603. <https://doi.org/10.1177/0093854817716959>
- Somers, L. J. (2023). Towards a better understanding of police experience: An assessment of the unique shifts, crime areas, and duty assignments that officers have worked. *The Police Journal*, 96(2), 212–229. <https://doi.org/10.1177/0032258X211064710>
- Stanley, S., & Horswell, J. (2004). The education and training of crime scene investigators: An Australian perspective. In *The Practice of Crime Scene Investigation* (pp. 89–98). CRC Press.
- Sundberg, K., Witt, C., Abela, G., & Mitchell, L. M. (2021). Peeling the paradigm: Exploring the professionalization of policing in Canada. *Journal of Community Safety and Well-Being*, 6(4), Article 4. <https://doi.org/10.35502/jcswb.227>
- Sutton, R., Trueman, K., & Moran, C. (2016). Crime Scene Principles. In *Crime Scene Management*. John Wiley & Sons Incorporated.

- The Expert Panel on the future of Canadian Policing Models. (2014). *Policing Canada in the 21st Century: New policing for new challenges*. Council of Canadian Academies.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *The American Journal of Evaluation*, 27(2), 237–246.
<https://doi.org/10.1177/1098214005283748>
- Toronto Police Service. (2023). *Uniform Careers: New Educational Requirement*. Careers. <https://www.tps.ca/careers/>
- Toronto Police Services Board. (2013). *Chief's internal organizational review: Toronto Police Service organizational structure review*.
<https://tpsb.ca/CIOR%20TPS%20Organizational%20Structure%20Review.pdf>
- Ubelaker, D. H. (2012). *Forensic science: Current issues, future directions*. Wiley.
<https://doi.org/10.1002/9781118373880>
- Watkins, K., Anderson, G., & Rondinelli, V. (2013). *Evidence and Investigation: From the Crime Scene to the Courtroom*. Edmond Montgomery.
- Whelan, C., & Harkin, D. (2021). Civilianising specialist units: Reflections on the policing of cyber-crime. *Criminology & Criminal Justice*, 21(4), 529–546.
<https://doi.org/10.1177/1748895819874866>
- Whetstone, T. S. (2000). Getting stripes: Educational achievement and study strategies used by sergeant promotional candidates. *American Journal of Criminal Justice*, 24(2), 247–257. <https://doi.org/10.1007/BF02887596>
- Wilson-Kovacs, D. (2014). 'Backroom Boys': Occupational dynamics in crime scene examination. *Sociology*, 48(4), 763–779.
<https://doi.org/10.1177/0038038513503741>
- Wood, D., Cockcroft, T., Tong, S., & Bryant, R. (2018). The importance of context and cognitive agency in developing police knowledge: Going beyond the police science discourse. *The Police Journal*, 91(2), 173–187.
<https://doi.org/10.1177/0032258X17696101>
- Wyatt, D., & Wilson-Kovacs, D. (2019). Understanding crime scene examination through an ethnographic lens. *WIREs Forensic Science*, 1(6).
<https://doi.org/10.1002/wfs2.1357>
- York Regional Police. (2020). *Police Constables*. Careers. <https://www.yrp.ca/en/careers/Police-Constables.asp>

Appendix A.

Consent Form



Who is conducting the study?

Principal Investigator: Dr. Gail Anderson, School of Criminology

Student Lead: Taylor Dube-Mather, School of Criminology

Invitation and Study Purpose

The collection and analysis of forensic evidence has become an imperative component of investigating a crime scene because it has the potential to identify suspects, as well as victims. It is important that crime scenes are examined by qualified individuals who understand the importance of upholding scientifically rigorous practices to ensure the evidence collected will be admissible in a court of law. In Canada, crime scene investigators (CSI), also known as forensic identification officers, are members of municipal and federal police forces. Though it used to be the case that CSIs consisted only of sworn police officers, there has been a handful of Canadian police forces adopting civilianized positions within crime scene investigation. Some argue that the skills, training and experience of a sworn police officer are critical for the success of an investigation. Others believe that civilian members hold the same required skill sets and may even possess more specialized training related to forensic science than a sworn officer. The purpose of this research is to speak to those who are involved with collecting and analyzing crime scene evidence to understand their perspectives about the pros and cons of adopting a civilianized system for forensic identification in Canadian police agencies. You are being invited to take part in this research study because you are a forensic identification officer, a forensic scientist, training/educational personnel related to forensic identification courses at an accredited educational institution, or you are related to forensic investigations in another capacity.

Voluntary Participation

Your participation is voluntary. You have the right to refuse to participate in this study. You should not feel any obligation to participate in this research study because of an existing relationship with the Student Lead or Principal Investigator. If you decide to participate, you may still choose to withdraw from the study at any time without any negative consequences to education, employment, or other services to which you are entitled or are presently receiving.

Study Procedures

If you decide to take part in this research study, the interview will take anywhere from 30 minutes to 90 minutes of your time. The student lead (Taylor Dube-Mather) will ask you questions relating to your forensic investigation experiences. The consent form will be reviewed at the onset of each interview and verbal consent will be obtained from

participants for their involvement in the study and recording the audio component of the interview. The interviews will take place over Zoom and the audio recording will be saved for the purposes of transcription. The audio recording will be saved into an encrypted file on the student leads laptop, only until transcribing is completed. Once transcribing is complete, the audio file will be destroyed. Unique numeric identifiers will be utilized as pseudonyms when saving the audio recording and when transcribing the data to ensure confidentiality of information. The laptop is password protected and the password is only known by the primary investigator. The de-identified electronic files obtained from the study will be stored in an encrypted file that requires a password to gain access. The de-identified data will be stored in a password protected encrypted file for potential future use which may include publications in scholarly journal articles and dissemination of findings at academic and professional conferences. You may opt out of the study at any time by emailing the primary investigator or phoning them at the provided number. Though the interview questions are not considered sensitive questions by the primary investigator, you as the participant are not required to answer all of them if they make you feel uncomfortable. Please let the primary investigator know if any make you uncomfortable and they can be skipped.

Privacy

This interview is hosted by Zoom, a US company. Any data you provide may be transmitted and stored in countries outside of Canada, as well as in Canada. It is important to remember that privacy laws vary in different countries and may not be the same as in Canada.

Data Storage

As per Simon Fraser University policy, primary data will be collected and reserved until the student lead has completed the Master's thesis defense. De-identified data will be safely stored in a password encrypted container for a 5-year period following the completion of the Master's thesis defense.

A master list containing participant first name, email, and allocated participant code will be obtained. The master list will be obtained for withdrawal purposes and for gift card compensation purposes. The master list will be safely stored in a password encrypted folder on the Student Leads password protected laptop. Finally, the master list will be stored in a separate encrypted file from the other data collected in this study to mitigate any risk of anonymity and confidentiality being breached.

Potential Risks of the Study

There are no foreseeable risks associated with your involvement in the study. The information being obtained is not considered sensitive and your participation in the study along with the answers you provide will be completely anonymized. All personal identifiers will be removed from the knowledge dissemination to safeguard participant involvement in this study. To expand on this, it would mean that participants would be labelled "Participant 1" rather than having a pseudonym that may indicate gender of the participant. Any data collected from participants will not be associated to their specific policing agency (for example, the final write up will not include that a participant was recruited from RCMP). When speaking of years of experience on the job, a range will be used (for example, a participant may indicate that they have been with the identification unit for 6 years but the write up would indicate a general range, for example: entry-level (0-5 years), intermediate (5-10 years), and senior (10+ years)). Please let the primary investigator if you have any concerns.

Potential benefits

Although no direct benefit to participants is expected, the study may be helpful in guiding decision makers in the future.

Compensation

Though your time is extremely valuable, you will not be compensated monetarily for your participation in this study.

Confidentiality

Your confidentiality will be respected. All documents will be identified only by a unique code number and kept in a password protected encrypted file folder until they are destroyed after transcription is complete. Participants will not be identified by name in any reports of the completed study. Participants will be identified by a unique code number.

Withdrawal

You can withdraw from the study at any time during the interview and after the interview. If you choose to enter the study and then decide to withdraw at a later time, all data collected during your enrolment in the study will be destroyed.

Contact Information

Please feel free to contact the Principal Investigator or Student Lead for any concerns you may have.

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact the SFU Office of Research Ethics.

Dissemination of results

Results will form part of the principal investigator's dissertation. Results may also be disseminated through publications within scholarly journal articles. Findings may be presented at academic and professional conferences.

Appendix B.

Recruitment Email: Interviews



Hello,

I am Taylor Dube-Mather and I am a second year Masters student in the School of Criminology at Simon Fraser University (SFU). I am currently in the process of conducting research which will inform my Masters thesis.

The purpose of this project is to gain perspective about the pros and cons of having sworn police officers collect and analyze forensic evidence versus having civilian members as forensic identification officers in Canada. At the present time, the majority of forensic evidence at a crime scene is collected by sworn police officers. There have been suggestions that these positions should be civilianized, that is be held by civilian scientists rather than sworn police officers. The United States of America and the United Kingdom have adopted civilianized services relating to crime scene investigation but this phenomenon remains minimally understood in a Canadian context. You are being invited to take part in this research study because you are *(Insert participant specific inclusion criteria relating to their role as forensic investigation personnel)*.

These important contributions that you have made to crime scene investigation and the perspectives you hold would make an invaluable contribution to this research. Thus, I am reaching out to you to ask if you are interested in being interviewed for this research project – the interview will take 30 minutes to 1 hour of your time.

I completely understand if you are unable to participate as I respect that you are a very busy professional. However, if you are interested, I have attached the letter indicating ethics approval, along with the consent form which details a summary of the study, the research questions guiding this project, how the information obtained through interviews will remain confidential and anonymized, and withdrawal information. These documents have been attached to ensure you have all the necessary information required to make an informed decision about your participation.

Thank you for taking the time to read my email! I look forward to connecting in the future.

Taylor Dube-Mather

Appendix C.

Interview Consent Script



I know that you confirmed via email that you read the consent form already but I would just like to start by going over some important points about your participation in the study.

- Once the transcripts have been finalized for your interview, I will send them to you via email. If you feel you want to provide further context to something you said or retract a particular statement made, please just let me know and I will make these amendments and send it back to you. If there are no amendments, just indicate that you are approving the accuracy within the transcript.
- All the data from the interviews will be completely anonymous and confidential. Your name will not be used at all if I am utilizing a quote from your interview. I will provide you with a unique code and that is how data from your interview will be conveyed in write ups. Any data collected from participants will not be associated to your specific agency. When speaking of years of experience on the job, a range will be used such as beginner (0-5 yrs), intermediate (5-10 yrs), and senior (10+ years).
- I want to make sure that you know this research will inform my Masters thesis and the unidentifiable data obtained from this study may be used for academic publishing or conference presentations. You can withdrawal anytime without any negative consequences. If you do withdraw, I will not use the data obtained from our interview.

Are there any questions?

If you agree to all of this, I will now ask you to verbally consent to your participation in this interview.

Thank you, now we will move forward to the interview. The first few questions are just so that I can get to know you better within your role.

Appendix D.

Interview Script



Welcome Text and Consent

Hello, thank you so much for taking the time to be involved with this research through an interview – without you, the research would not be possible. I would like to formally introduce myself. I am Taylor Dube-Mather and am I working towards completing my Master's in Criminology at Simon Fraser University. The data collected from these interviews will inform my Master's thesis which is hoping to understand civilianization in specialized law enforcement units, like forensics. I am excited to gain your perspectives about this topic as many have mentioned the growing popularity of civilians in forensics in Canada. As a reminder, you can refuse to answer any questions throughout the interview and please let me know if there's something you want to skip over.

[Interview Questions]

Closing comments

The interview questions are now complete. I would like to again take the time to thank you for all the contributions you have made to my research. Within two to three weeks, I will transcribe the interview and anonymize the data. If you ever have any questions, please feel free to reach me. Before we end, do you have any final questions before the audio recording is stopped? If not, the audio recording will now stop.

Appendix E.

Interview Question Guide

The logo for Simon Fraser University (SFU) is a dark red square with the white letters "SFU" inside.

Sample questions

Applicable questions will be asked of all participants who are interviewed:

1. Tell me about your professional self?.
2. How would you describe your role?
 - a. How long have you been in this role?
3. How would you describe your daily duties within your role?
4. What is your educational background?
 - a. What was the educational requirement needed to fill your role?
(Highschool diploma, Bachelors, certificate)
5. What kind of training did you receive from your agency for your position?
6. What kind of professional development opportunities are available to you through your agency?
7. How would you define the role of a crime scene investigator?
 - a. How would you define crime scene units?
8. How would you define the role of forensic science in a criminal investigation?
 - a. How does forensic science contribute to police work?
9. What special knowledge, skills and abilities are necessary to perform crime scene investigation?
10. What experience, length of service or previous assignments is required to do the job effectively?
11. Why might the skill set of a sworn police officer be useful in a criminal investigation?
 - a. In your understanding of a police officer, what skills can you identify that would be important for collective evidence at a crime scene?
12. What do you believe to be the pros of civilianizing the forensic ident. officer position?
13. What do you believe to be the cons of civilianizing the position?
14. What are your thoughts about switching to a civilian based system from the system we currently have?

Educator specific questions:

1. What is the aim of your program?
2. What employment opportunities can your program provide for students?
3. What makes your program unique for students?
4. How does your program set students up for success once they are an alumni?
5. How does your program prepare students to become a civilian member of the police who collects and analyzes forensic evidence?

- a. What skill sets do students obtain from the program that enhance their abilities as a civilian member?
6. How does your program prepare students to become a sworn member of the police who collects and analyzes forensic evidence?
 - a. What skill sets do students obtain from the program that enhance their abilities as a sworn member?
7. Why do you think your students are more prepared to become civilian members of police collecting and analyzing forensic evidence?
8. Why do you think your students are more prepared to become sworn members of the police collecting and analyzing forensic evidence?

Civilian specific questions:

To assess civilians' views about the culture within their work place (Likert scale question during the interviews, if not already elicited through conversation):

1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree

1. Employees are treated the same regardless of their sworn or civilian status
2. The department culture is accepting of civilian members
3. As a civilian member I feel I have to constantly prove myself
4. As a civilian member I feel my opinion/expertise is valued
5. As a civilian member I feel my expertise is often dismissed by sworn members
6. As a civilian member I feel like I am part of a collaborative team